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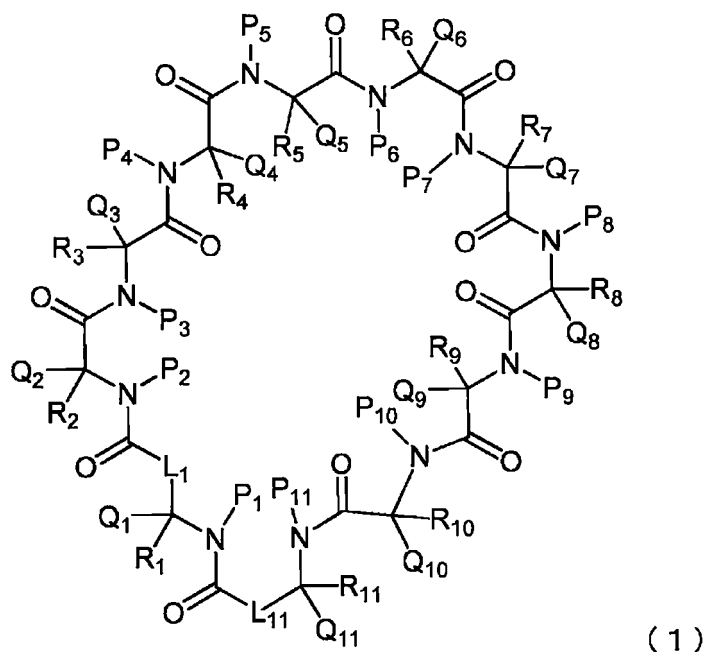
(54) 发明名称

具有Kras抑制作用的环状肽化合物

(57) 摘要

本发明提供与Ras相互作用的环状肽化合物以及对该环状肽化合物的制备有用的非天然氨基酸。另外,发现了该环状肽化合物抑制Ras与SOS的键合。此外,本发明还提供该环状肽化合物所包含的特定的非天然氨基酸及其制备方法。

1. 由下式 (1) 表示的环状肽化合物或其盐、或者它们的溶剂合物:



式中,

L_1 是单键、或者 $-CHM_1-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或 $-(CH_2)_nS(O)_2(CH_2)_m-$, 其中 n 和 m 各自独立地为 1 或 2,

R_1 是氢、 C_1-C_6 烷基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、或 C_3-C_8 环烷氧基 C_1-C_6 烷基, 其中的每一个任选被独立地选自由卤素、羟基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或 4~8 元环状氨基的氨基羰基、以及 C_1-C_6 烷基磺酰基组成的组中的一个或多个基团所取代, 或者

R_1 和 P_1 与 R_1 所键合的碳原子和 P_1 所键合的氮原子一起形成 4~7 元饱和杂环, 或者

R_1 和 Q_1 与它们所键合的碳原子一起形成 3~8 元脂环或 4~7 元饱和杂环, 或者

R_1 和 M_1 与 R_1 所键合的碳原子和 M_1 所键合的碳原子一起形成 3~8 元脂环,

除了 R_1 和 P_1 形成 4~7 元饱和杂环的情况之外, P_1 是氢或 C_1-C_6 烷基, 其中该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或 4~8 元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或 4~8 元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_1 和 Q_1 形成 3~8 元脂环或 4~7 元饱和杂环的情况之外, Q_1 为氢或 C_1-C_6 烷基, 并且

除了 R_1 和 M_1 形成 3~8 元脂环的情况之外, M_1 是氢,

R_2 是 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、或 C_3-C_8 环烷氧基 C_1-C_6 烷基, 其中的每一个任选被独立地选自由卤素、羟基、氰基和 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代, 或者

R_2 和 P_2 与 R_2 所键合的碳原子和 P_2 所键合的氮原子一起形成 4~7 元饱和杂环, 或者

R_2 和 Q_2 与它们所键合的碳原子一起形成 3~8 元脂环或 4~7 元饱和杂环, 或者

除了 R_2 和 P_2 形成 4~7 元饱和杂环的情况之外, P_2 是氢或 C_1-C_6 烷基, 其中该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或

4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了R₂和Q₂形成3~8元脂环或4~7元饱和杂环的情况之外,Q₂为氢或C₁-C₆烷基,

R₃是氢、C₁-C₆烷基、C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基,其中的每一个任选被独立地选自由羟基和氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,或者

R₃和P₃与R₃所键合的碳原子和P₃所键合的氮原子一起形成4~7元饱和杂环,或者

R₃和Q₃与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了R₃和P₃形成4~7元饱和杂环的情况之外,P₃是氢、C₁-C₆烷基、C₁-C₆烷氧基C₁-C₆烷基、或C₃-C₈环烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或任选被1个或多个卤素取代的4~8元环状氨基的C₁-C₆氨基烷基所组成的组中的一个或多个基团所取代,

除了R₃和Q₃形成3~8元脂环或4~7元饱和杂环的情况之外,Q₃为氢或C₁-C₆烷基,

R₄是氢、C₁-C₆烷基,或者

R₄和P₄与R₄所键合的碳原子和P₄所键合的氮原子一起形成4~7元饱和杂环,或者

R₄和Q₄与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了R₄和P₄形成4~7元饱和杂环的情况之外,P₄是氢、C₁-C₆烷基、或C₁-C₆烷氧基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了R₄和Q₄形成3~8元脂环或4~7元饱和杂环的情况之外,Q₄是氢或C₁-C₆烷基,

R₅是C₁-C₆烷基、C₂-C₆烯基、C₂-C₆炔基、C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、C₇-C₁₄芳烷基、C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷氧基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氰基和C₁-C₆烷基磺酰基所组成的组中的一个或多个基团所取代,或者R₅与R₈一起形成C₄-C₈亚烷基,或者

R₅和P₅与R₅所键合的碳原子和P₅所键合的氮原子一起形成4~7元饱和杂环,或者

R₅和Q₅与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了R₅和P₅形成4~7元饱和杂环的情况之外,P₅是氢或C₁-C₆烷基,该C₁-C₆烷基任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了R₅和Q₅形成3~8元脂环或4~7元饱和杂环的情况之外,Q₅为氢或C₁-C₆烷基,

R₆是氢、C₁-C₆烷基,或者

R₆和P₆与R₆所键合的碳原子和P₆所键合的氮原子一起形成4~7元饱和杂环,或者

R_6 和 Q_6 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1 - C_6 烷基或 C_3 - C_8 环烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_6 和 Q_6 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_6 为氢或 C_1 - C_6 烷基,

R_7 是 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基、 C_1 - C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代,或者

R_7 和 P_7 与 R_7 所键合的碳原子和 P_7 所键合的氮原子一起形成4~7元饱和杂环,或者

R_7 和 Q_7 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_7 和 P_7 形成4~7元饱和杂环的情况之外, P_7 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_7 和 Q_7 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_7 为氢或 C_1 - C_6 烷基,

R_8 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_2 - C_6 烯氧基羰基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、5~10元杂芳基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、羧基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基、选自 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基羰基、4~7元杂环烷叉基、受保护的4~7元杂环烷叉基、4~7元杂环基、以及受保护的4~7元杂环基所组成的组中的一个或多个基团所取代,或者 R_8 与 R_5 一起形成 C_4 - C_8 亚烷基,或者

R_8 和 P_8 与 R_8 所键合的碳原子和 P_8 所键合的氮原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与饱和碳环或芳香环稠合,该4~7元饱和杂环任选被卤素、氧代、 C_6 - C_{10} 芳基、5~10元杂芳基、任选被一个或多个卤素取代的4~8元环状氨基、或 OS_8 取代, S_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、或 C_1 - C_6 卤代烷氧基取代的 C_7 - C_{14} 芳烷基、或5~10元杂芳基 C_1 - C_6 烷基,或者

R_8 和 Q_8 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷氧基 C_2 - C_6 烯基、 C_3 - C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1 - C_6 烷基、 C_6 - C_{10} 芳基、 C_7 - C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素或 C_1 - C_6 烷基取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一

个或多个基团所取代,

除了 R_8 和 Q_8 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_8 为氢或 C_1-C_6 烷基,

R_9 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、或5~10元杂芳基、 C_1-C_6 烷氧基、 C_1-C_6 烷基,其中的每一个任选被独立地选自自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基、以及 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

R_9 和 P_9 与 R_9 所键合的碳原子和 P_9 所键合的氮原子一起形成4~7元饱和杂环,或者

R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_9 为氢或 C_1-C_6 烷基,

R_{10} 是 C_1-C_6 烷基、 C_2-C_6 炔基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、 C_3-C_8 环烷氧基、 C_1-C_6 烷基、或 C_7-C_{14} 芳烷基,其中的每一个任选被独立地选自自由卤素、羟基、以及 C_1-C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者

R_{10} 和 P_{10} 与 R_{10} 所键合的碳原子和 P_{10} 所键合的氮原子一起形成4~7元饱和杂环,或者

R_{10} 和 Q_{10} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外, P_{10} 是氢或 C_1-C_6 烷基,其中该 C_1-C_6 烷基任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{10} 为氢或 C_1-C_6 烷基,并且

L_{11} 是单键、或者 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或 $-(CH_2)_nS(O)_2(CH_2)_m-$,其中n和m各自独立地为1或2,

R_{11} 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、或氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基,其中的每一个任选被独立地选自自由卤素、氧代、羟基、 C_1-C_6 烷基、4~7元杂环基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基、以及 C_1-C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者 R_{11} 是包含1~4个氨基酸残基的肽链,或者

R_{11} 和 P_{11} 与 R_{11} 所键合的碳原子和 P_{11} 所键合的氮原子一起形成4~7元饱和杂环,或者

R_{11} 和 Q_{11} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

R_{11} 和 M_{11} 与 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成3~8元脂环,

除了 R_{11} 和 P_{11} 形成4~7元饱和杂环的情况之外, P_{11} 是氢或 C_1-C_6 烷基,其中该 C_1-C_6 烷基任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团

所取代,

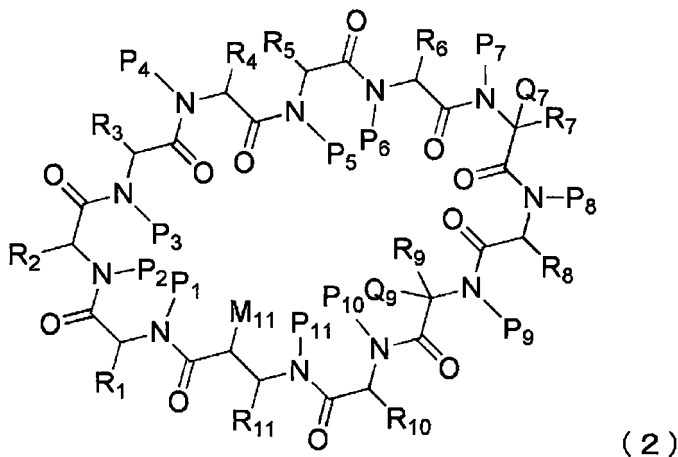
除了 R_{11} 和 Q_{11} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{11} 为氢或 C_1-C_6 烷基,

除了 R_{11} 和 M_{11} 形成3~8元脂环的情况之外, M_{11} 是氢,

其中,在 L_1 是单键的情况下, L_{11} 是 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或者 $-(CH_2)_nS(O)_2(CH_2)_m-$,而在 L_1 是 $-CHM_1-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或者 $-(CH_2)_nS(O)_2(CH_2)_m-$ 的情况下, L_{11} 是单键,并且

$P_1 \sim P_{11}$ 中的至少3个并非氢。

2. 根据权利要求1所述的环状肽化合物或其盐、或它们的溶剂合物,其中,所述环状肽化合物由下式(2)表示:



式中,

R_1 是 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_1-C_6 烷基磺酰基、 C_1-C_6 烷基、 C_2-C_6 炔基、任选被一个或多个卤素、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基、或羟基取代的 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、或 C_3-C_8 环烷氧基、 C_1-C_6 烷基,

R_1 和 P_1 与 P_1 所键合的氮原子和 R_1 所键合的碳原子一起形成4~7元饱和杂环,或者

除了 R_1 和 P_1 形成4~7元饱和杂环的情况之外, P_1 是氢或 C_1-C_6 烷基,

R_2 是 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_1-C_6 烷基磺酰基、 C_1-C_6 烷基、 C_1-C_6 氰烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、任选被一个或多个卤素取代的 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、或 C_3-C_8 环烷氧基、 C_1-C_6 烷基,

P_2 是氢,

R_3 是氢、 C_1-C_6 烷基、 C_1-C_6 羟烷基、任选被氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基或羟基取代的 C_1-C_6 烷氧基、 C_1-C_6 烷基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、或 C_3-C_8 环烷氧基、 C_1-C_6 烷基、或 C_7-C_{14} 芳烷基,或者

R_3 和 P_3 与 P_3 所键合的氮原子和 R_3 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1-C_6 烷基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、氨基选自 $-NH_2$ 、受保护的氨基、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1-C_6 氨基烷基、或 C_3-C_8 环烷基,

R_4 是氢、 C_1-C_6 烷基,或者

R_4 和 P_4 与 P_4 所键合的氮原子和 R_4 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是 C_1 - C_6 烷基或 C_1 - C_6 烷氧基 C_1 - C_6 烷基,

R_5 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷基磺酰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷基、 C_1 - C_6 卤代烷氧基、或氰基取代的 C_7 - C_{14} 芳烷基、任选被一个或多个卤素取代的 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷基,或者 R_5 与 R_8 一起形成 C_4 - C_8 亚烷基,

P_5 是氢或 C_1 - C_6 烷基,

R_6 是氢或 C_1 - C_6 烷基,或者

R_6 和 P_6 与 P_6 所键合的氮原子和 R_6 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1 - C_6 烷基、或 C_3 - C_8 环烷基,

R_7 是任选被独立地选自由卤素和 C_1 - C_6 卤代烷基组成的组中的一个或多个基团所取代的 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、任选被独立地选自由卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、 C_2 - C_6 炔基、氰基、 C_1 - C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代的 C_7 - C_{14} 芳烷基、任选被一个或多个卤素取代的 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基或 C_1 - C_6 烷氧基取代的5~10元杂芳基 C_1 - C_6 烷基,

Q_7 是氢或 C_1 - C_6 烷基,

P_7 是氢,

R_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 羧基烷基、氨基选自 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1 - C_6 氨基烷基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的氨基羰基 C_1 - C_6 烷基、任选受保护的4~7元杂环基 C_1 - C_6 烷基、任选受保护的4~7元杂环烷叉基 C_1 - C_6 烷基、任选被氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基或羟基取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 烯氧基羰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、任选被独立地选自由卤素、羟基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团所取代的 C_7 - C_{14} 芳烷基、任选被选自由 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、以及氰基所组成的组中的一个或多个基团所取代的5~10元杂芳基烷基、或者任选被一个或多个卤素取代的5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基,或者 R_8 与 R_5 一起形成 C_4 - C_8 亚烷基,

R_8 和 P_8 与 P_8 所键合的氮原子和 R_8 所键合的碳原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与3~8元饱和碳环或6~10元芳香环稠合,该4~7元饱和杂环任选被一个或多个卤素、羟基、氧代、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、 C_1 - C_6 羟基烷氧基、 C_6 - C_{10} 芳基、5~10元杂芳基 C_1 - C_6 烷氧基、任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、或 C_1 - C_6 卤代烷氧基取代的 C_7 - C_{14} 芳烷氧基、任选被一个或多个卤素取代的4~8元环状氨基、或5~10元杂芳基所取代,或者

除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 羟烷基、任选被一

个或多个卤素、羟基、二C₁-C₆烷基氨基羰基、C₁-C₆烷氧基、或选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基取代的C₁-C₆烷氧基C₁-C₆烷基、氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的氨基羰基C₁-C₆烷基、氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素或C₁-C₆烷基取代的C₁-C₆氨基烷基、C₂-C₆烯基、C₂-C₆羟基烯基、氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基C₂-C₆烯基、C₁-C₆烷氧基C₂-C₆烯基、任选被一个或多个卤素取代的C₃-C₈环烷基、4~7元杂环基、4~7元杂环基C₁-C₆烷基、任选被一个或多个卤素取代的C₆-C₁₀芳基、C₇-C₁₄芳烷基、5~10元杂芳基、或5~10元杂芳基C₁-C₆烷基，

R₉是氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆烯基、任选被氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基、羟基或任选被一个或多个卤素取代的5~10元杂芳基取代的C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基C₁-C₆烷基、或任选被独立地选自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、以及氰基所组成的组中的一个或多个基团取代的C₇-C₁₄芳烷基，或者

R₉和Q₉与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环，或者

R₉和P₉与P₉所键合的氮原子和R₉所键合的碳原子一起形成4~7元饱和杂环，

除了R₉和Q₉形成3~8元脂环或4~7元饱和杂环的情况之外，Q₉是氢或C₁-C₆烷基，

除了R₉和P₉形成4~7元饱和杂环的情况之外，P₉是氢或C₁-C₆烷基，

R₁₀是C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆羟烷基、C₁-C₆烷基磺酰基C₁-C₆烷基、C₂-C₆炔基、任选被一个或多个卤素取代的C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基，或者

R₁₀和P₁₀与P₁₀所键合的氮原子和R₁₀所键合的碳原子一起形成4~7元饱和杂环，

除了R₁₀和P₁₀形成4~7元饱和杂环的情况之外，P₁₀是氢或C₁-C₆烷基，

R₁₁是氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆烯基、C₂-C₆炔基、任选被羟基、或氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基的氨基羰基取代的C₁-C₆烷氧基C₁-C₆烷基、任选被一个或多个卤素取代的C₇-C₁₄芳烷基、或氨基选自-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或任选进一步被一个或多个卤素、一个或多个氧代、一个或多个C₁-C₆烷基、或4~7元杂环基所取代的4~8元环状氨基的氨基羰基，或者

R₁₁和M₁₁与R₁₁所键合的碳原子和M₁₁所键合的碳原子一起形成3~8元脂环，或者

R₁₁和P₁₁与P₁₁所键合的氮原子和R₁₁所键合的碳原子一起形成4~7元饱和杂环，

除了R₁₁和M₁₁形成3~8元脂环的情况之外，M₁₁是氢，

除了R₁₁和P₁₁形成4~7元饱和杂环的情况之外，P₁₁是氢或C₁-C₆烷基。

3. 根据权利要求1和2中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物，其中，

R₁₁是-CONR_{11A}R_{11B}，

R_{11A}和R_{11B}各自独立地表示氢或C₁-C₆烷基，或者R_{11A}和R_{11B}与它们所键合的氮原子一起形成4~8元饱和杂环，该4~8元饱和杂环任选被独立地选自由卤素、氧代、C₁-C₆烷基和4~7元杂环基组成的组中的一个或多个基团取代。

4. 根据权利要求1~3中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物，

其中,

R_7 是 $-(CH_2)_x-O_y-(CH_2)_{z1}-C_6-C_{10}$ 芳基或 $-(CH_2)_x-O_y-(CH_2)_{z2}-5\sim 10$ 元杂芳基,它们任选被独立地选自由卤素、 C_1-C_4 烷基、 C_2-C_4 炔基、 C_1-C_3 卤代烷基、 C_1-C_3 卤代烷氧基、 C_1-C_4 烷氧基、 $-CN$ 、 C_1-C_3 烷基磺酰基、羟基、以及 SF_5 组成的组中的1~5个基团所取代,

其中,以 x 、 y 和 $z1$ 或 $z2$ 之和为1~4作为条件,

x 为1、2或3,

y 为0或1,

$z1$ 为0、1、2或3,并且

$z2$ 为1、2或3。

5. 根据权利要求1~4中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中, R_4 和 P_4 与 P_4 所键合的氮原子和 R_4 所键合的碳原子一起形成4~7元饱和杂环。

6. 根据权利要求1~5中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中, R_8 和 P_8 与 P_8 所键合的氮原子和 R_8 所键合的碳原子一起形成4~7元饱和杂环。

7. 根据权利要求1~6中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中,

R_8 是 $-(CH_2)_x-O_y-(CH_2)_{z1}-C_6-C_{10}$ 芳基或 $-(CH_2)_x-O_y-(CH_2)_{z2}-5\sim 10$ 元杂芳基,它们任选被独立地选自由卤素、 C_1-C_4 烷基、 C_2-C_4 炔基、 C_1-C_3 卤代烷基、 C_1-C_3 卤代烷氧基、 C_1-C_4 烷氧基、 $-CN$ 、 C_1-C_3 烷基磺酰基、羟基、以及 SF_5 组成的组中的1~5个基团所取代,

其中,以 x 、 y 和 $z1$ 或 $z2$ 之和为1~4作为条件,

x 是1、2或3,

y 为0或1,

$z1$ 为0、1、2或3,并且

$z2$ 是1、2或3。

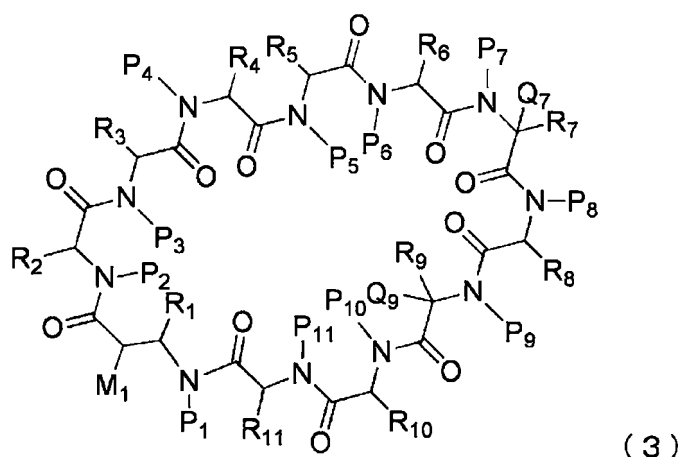
8. 根据权利要求1~7中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中, R_9 是 C_1-C_6 烷基、 C_2-C_6 烯基、或者是 C_7-C_{14} 芳烷基,并且 Q_9 是 C_1-C_6 烷基,或者

R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

9. 根据权利要求1~8中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中, P_1 、 $P_3\sim P_6$ 以及 $P_8\sim P_{11}$ 中的至少3个是烷基。

10. 根据权利要求1~9中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物,其中, R_2 和 R_3 是 C_1-C_6 烷基。

11. 根据权利要求1所述的环状肽化合物或其盐、或它们的溶剂合物,所述环状肽化合物由下式(3)表示:



式中,

R_1 是氢或 C_1 - C_6 烷基,

P_1 是氢或 C_1 - C_6 烷基,

M_1 是氢,

R_2 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基、 C_1 - C_6 烷基磺基、 C_1 - C_6 氰烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基,

P_2 是氢,

R_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 羟烷基、任选被氨基选自-NH₂、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基或羟基取代的 C_1 - C_6 烷氧基、 C_1 - C_6 烷基)、氨基选自-NH₂、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,或者

R_3 和 P_3 与 P_3 所键合的氮原子和 R_3 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1 - C_6 烷基、氨基选自-NH₂、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1 - C_6 氨基烷基、或 C_3 - C_8 环烷基,

R_4 是氢或 C_1 - C_6 烷基,或者

R_4 和 P_4 与 P_4 所键合的氮原子和 R_4 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是 C_1 - C_6 烷基或 C_1 - C_6 烷氧基、 C_1 - C_6 烷基,

R_5 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷基磺酰基、 C_1 - C_6 烷基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基、任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷基、 C_1 - C_6 卤代烷氧基、或氰基取代的 C_7 - C_{14} 芳烷基、任选被一个或多个卤素取代的 C_6 - C_{10} 芳氧基、 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷氧基、 C_1 - C_6 烷基、或5~10元杂芳基、 C_1 - C_6 烷基,或者 R_5 与 R_8 一起形成 C_4 - C_8 亚烷基,

P_5 是氢或 C_1 - C_6 烷基,

R_6 是氢或 C_1 - C_6 烷基,或者

R_6 和 P_6 与 P_6 所键合的氮原子和 R_6 所键合的碳原子一起形成4~7元饱和杂环,

除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1 - C_6 烷基或 C_3 - C_8 环烷基,

R_7 是任选被独立地选自卤素和 C_1 - C_6 卤代烷基组成的组中的一个或多个基团所取代的 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、任选被独立地选自卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、 C_2 - C_6 炔基、氰基、 C_1 - C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代的 C_7 - C_{14} 芳烷基、任选被一个或多个卤素取代的 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基或 C_1 - C_6 烷氧基取代的5~10元杂芳基 C_1 - C_6 烷基,

Q_7 是氢或 C_1 - C_6 烷基,

P_7 是氢,

R_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 羧基烷基、氨基选自 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1 - C_6 氨基烷基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1 - C_6 氨基羰基 C_1 - C_6 烷基、任选受保护的4~7元杂环基 C_1 - C_6 烷基、任选受保护的4~7元杂环烷叉基 C_1 - C_6 烷基、任选被氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基或羟基取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 烯氧基羰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、任选被独立地选自卤素、羟基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团所取代的 C_7 - C_{14} 芳烷基、任选被选自 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、以及氰基所组成的组中的一个或多个基团所取代的5~10元杂芳基烷基、或者任选被一个或多个卤素取代的5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基,或者 R_5 与 R_8 一起形成 C_4 - C_8 亚烷基,或者

R_8 和 P_8 与 P_8 所键合的氮原子和 R_8 所键合的碳原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与3~8元饱和碳环或6~10元芳香环稠合,该4~7元饱和杂环任选被一个或多个卤素、羟基、氧代、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、 C_1 - C_6 羟基烷氧基、 C_1 - C_6 芳基、5~10元杂芳基 C_1 - C_6 烷氧基、任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、或 C_1 - C_6 卤代烷氧基取代的 C_7 - C_{14} 芳烷氧基、任选被一个或多个卤素取代的4~8元环状氨基、或5~10元杂芳基所取代,或者

除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 羟烷基、任选被一个或多个卤素、羟基、二 C_1 - C_6 烷基氨基羰基、或 C_1 - C_6 烷氧基取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的氨基羰基 C_1 - C_6 烷基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被一个或多个卤素取代的 C_1 - C_6 氨基烷基、 C_2 - C_6 烯基、 C_2 - C_6 羟基烯基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基 C_2 - C_6 烯基、 C_1 - C_6 烷氧基 C_2 - C_6 烯基、任选被一个或多个卤素取代的 C_3 - C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1 - C_6 烷基、任选被一个或多个卤素取代的 C_6 - C_{10} 芳基、 C_7 - C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1 - C_6 烷基,

R_9 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 烯基、任选被氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基或羟基取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、任选被独立地选自卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团取代的 C_7 - C_{14} 芳烷基、或者任选被一

个或多个卤素取代的5~10元杂芳基C₁-C₆烷氧基C₁-C₆烷基,或者

R₉和Q₉与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

R₉和P₉与P₉所键合的氮原子和R₉所键合的碳原子一起形成4~7元饱和杂环,

除了R₉和Q₉形成4~7元饱和杂环的情况之外,Q₉是氢或C₁-C₆烷基,

除了R₉和P₉形成4~7元饱和杂环的情况之外,P₉是氢或C₁-C₆烷基,

R₁₀是C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆羟烷基、C₁-C₆烷基磺酰基C₁-C₆烷基、C₂-C₆炔基、任选被一个或多个卤素取代的C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基,或者

R₁₀和P₁₀与P₁₀所键合的氮原子和R₁₀所键合的碳原子一起形成4~7元饱和杂环,

除了R₁₀和P₁₀形成4~7元饱和杂环的情况之外,P₁₀是氢或C₁-C₆烷基,

R₁₁是氢、任选被羟基取代的C₁-C₆烷氧基C₁-C₆烷基、或任选被一个或多个卤素取代的C₇-C₁₄芳烷基,并且P₁₁是氢或C₁-C₆烷基。

12. 根据权利要求1所述的环状肽化合物或其盐、或它们的溶剂合物,其中,所述环状肽化合物选自以下化合物构成的组:

(1) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,18-双(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2) (8S,11S,17S,26S,29S,33R,36S)-17-(环己基甲基)-11-[2-[3-氟-4-(三氟甲基)苯基]乙基]-8,29,36-三异丁基-6,15,18,21,24,30,33,34-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(3) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(4) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(5) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-33-乙基-11-异丁基-N,N,5,6,12,16,19,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(6) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-[[6-(三氟甲基)-3-吡啶基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,

30,33-十一酮,

(7) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-8- (甲氧基甲基) -5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(8) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11- (环戊基甲基) -18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(9) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -18-环戊基-29- (3-氟-4- (三氟甲基) 苯乙基) -11-异丁基-5,6,12,16,19,33,36-七甲基-15- (吗啉-4-羰基) -35- (丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(10) (8S,11S,17S,26S,29S,33S,36S) -11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -36-环己基-17- (环己基甲基) -29-异丁基-9,15,18,21,24,30,34,37-八甲基-26- [(1S) -1-甲基丙基] -33- (哌啶-1-羰基) -8- [[6- (三氟甲基) -3-吡啶基] 甲基] -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(11) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -18-环戊基-29- (3-氯-4- (三氟甲基) 苯乙基) -11-异丁基-5,6,12,16,19,33,36-七甲基-15- (吗啉-4-羰基) -35- (丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(12) N- [4- [(3S,9S,12S,18S,27S,30S,34R) -18- [(4-氯苯基) 甲基] -3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27- [(1S) -1-甲基丙基] -2,5,8,11,14,17,20,23,26,29,32-十一氧代-12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基] 丁基] 氨基甲酸烯丙酯,

(13) (3S,9S,12S,18S,27S,30S,34S) -12- [(3-碘苯基) 甲基] -3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -9- (2-苯基乙基) -34- (哌啶-1-羰基) -18- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(14) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -28-环丙基-21-异丁基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(15) (8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (4-氯苄基) -11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15- (哌

啖-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(16) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(17) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-8-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(18) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-9,18-双[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(19) (3S,9S,12S,18S,27S,30S,34R)-12-[2-(4-氯苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(20) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(21) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-18-[(4-氯苯基)甲基]-12-[(3,5-二氟苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(22) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异戊基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(23) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-36-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(24) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(25) (6S,12S,21S,24S,26aR,29aR,32S,35S,37aS) -35-苄基-21-((S)-仲丁基)-12-(4-氯苄基)-32-异丁基-10,13,16,19,24,25,33,36-八甲基-6-(4-(三氟甲基)苯乙基)二十六氢-1H-环戊并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5,8,11,14,17,20,23,26,31,34,37 (37aH) -十一酮,

(26) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吡咯烷-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(27) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-(异戊氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(28) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[2-(4-氟苯基)乙基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(29) (3S,6S,9S,12S,18S,27S,30S,34S) -6,9-二苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-16-乙基-3-异丙基-4,7,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(30) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(31) (4R,7S,13S,16S,22S,31S,34S) -22-(环己基甲基)-7,13-二异丁基-4,8,10,10,14,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(32) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(33) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,

5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(34) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(35) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(36) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(4-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(37) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环戊基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(38) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,35-双(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(39) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(40) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(41) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]

乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(丙氧基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(42) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(3-氯苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(43) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(2-氟苄基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(44) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(45) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-8-(环丁氧基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(46) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苄基)甲基]-3,6,9-三异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(47) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(48) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(49) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基

二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(50) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(51) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(52) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(53) N-叔丁基-2-[[(3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]甲氧基]乙酰胺,

(54) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-11-戊基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(55) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(56) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-26-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(57) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(58) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环己基-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-

15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(59) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(60) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环戊基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(61) (8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8,36-二异丁基-9,15,18,21,24,29,30,33,37-九甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(62) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(63) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(64) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11,15-二异丁基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(65) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(66) (3S,9S,18S,21S,25R,28S,34S,36R)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(67) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,

29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(68) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(环丙基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(69) (8S,11S,17S,26S,29S,33S,36S) -8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(70) N-(叔丁基)-2-(((5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)甲氧基)乙酰胺,

(71) (3S,6S,10R,13S,16S,19S,22S,28S,34S) -16-苄基-28-[(4-氯苯基)甲基]-19-异丁基-13-异丙基-6,7,10,14,17,20,26,29,32-九甲基-3-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,11,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,12,15,18,21,24,27,30,33-十一酮,

(72) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(73) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(74) (3S,9S,18S,21S,25R,28S,34S,36R) -9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(75) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(76) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R) -15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-18'-异丁基-25'-异丙基-7',10',13',19',22',26'-六甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

(77) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -37- (环己基甲基) -18- 异丙基-6,11,12,15,19,38-六甲基二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39 (14H,22H) -十一酮,

(78) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (5,5-二氟戊基) -11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(79) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(80) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-11- ((R) -1-甲氧基乙基) -5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(81) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-9- (环己基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(82) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'- ((S) -仲丁基) -30'- (3-氯-4- (三氟甲基) 苯乙基) -36'- (2-氯苄基) -19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

(83) (3S,9S,12S,18S,27S,30S,34R) -3-丁基-18-[(4-氯苯基) 甲基]-12-[2-[3-氟-4- (三氟甲基) 苯基]乙基]-9,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(84) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -8- (环戊基甲基) -11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(85) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S) -仲丁基) -29- (3,5-二

氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(86) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((2-羟基-2-甲基丙氧基)甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(87) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-双(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(88) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(89) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(90) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-苄基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(91) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-((R)-1-羟基乙基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(92) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(93) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,29,31,31,32-十一甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,

17,20,23,27,30,33-十一酮,

(94) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(5,5-二氟戊基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(95) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(3-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(96) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-6,6,7,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(97) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-N,N,9,15,18,21,24,30,37-九甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

(98) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-异丁基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(99) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(100) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环丙基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(101) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环丙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(102) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(103) (2aS,5S,11S,14S,20S,23S,30aS,33S,36S) -33-((S)-仲丁基)-14-丁基-11-(3-氯-4-(三氟甲基)苯乙基)-5-(4-氯苄基)-20-异丁基-4,7,16,17,17,22,35,36-八甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

(104) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(2,2,2-三氟乙基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(105) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(106) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环己基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(107) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(108) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(109) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(110) (3S,9S,18S,21S,25R,28S,34S) -21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(4-碘苯基)甲基]-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(111) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[2-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(112) (5S,8S,12S,15S,20aS,26S,32S,37aS) -5-((S)-仲丁基)-26-(4-氯苯乙基)-32-(环己基甲基)-8-异丁基-15-异丙基-9,13,16,30,33,36-六甲基-12-(哌啶-1-羰基)二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

(113) (8S,11S,17S,26S,29S,33R,36S) -17-[(4-氯苯基)甲基]-8,33,36-三异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(114) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,25,29-七甲基-18-[(1S)-1-甲基丙基]-22-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(115) (8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,16,19,32,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(116) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]-16-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(117) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(3-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(118) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(1R)-1-羟基乙基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(119) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-12-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(120) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (4-氯苄基) -18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(121) (3S,9S,18S,21S,25R,28S,34S) -9- [(4-氯苄基) 甲基] -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(122) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(123) (3S,9S,18S,21S,25R,28S,34S) -16-丁基-3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(124) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苄基) 甲基] -9,30-二异丁基-3-异丙基-4,7,10,16,19,22,25,31,34-九甲基-27- [(1S) -1-甲基丙基] -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(125) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-9-丁基-12- [(3-碘苯基) 甲基] -3,30-二异丁基-18- [(4-甲氧基苯基) 甲基] -1,6,7,16,19,22,25,31-八甲基-27- [(1S) -1-甲基丙基] -34- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(126) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -9- (丙氧基甲基) -25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(127) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35-环丁基-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(128) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (氮杂环丁烷-1-羰基) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(129) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(丙氧基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(130) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-9-异丁基-19-(甲氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(131) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(132) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(133) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(134) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(135) (6'S,15'S,18'S,22'S,25'S,30a'S,36'S,38a'R) -15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-异丙基-7',10',13',18',19',23',26'-七甲基-22'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

(136) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(137) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-22-乙基-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(138) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(139) (5S,8S,12S,15S,20aS,26S,32S,37aS)-5-((S)-仲丁基)-32-(环己基甲基)-26-(3-氟-4-(三氟甲基)苯乙基)-8-异丁基-15-异丙基-9,13,16,30,33,36-六甲基-12-(哌啶-1-羰基)二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

(140) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(141) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(142) (6'S,12'S,21'S,24'S,27a'R,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-6'-(3-氟-4-(三氟甲基)苯乙基)-24'-异丁基-34'-异丙基-10',13',16',19',25',35'-六甲基二十六氢螺[环戊烷-1,37'-吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',33',36',39'(38'H)-十一酮,

(143) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[3-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(144) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,12,16,19,33,36-七甲基-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(145) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(5,5-二氟戊基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲

基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(146) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(4-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(147) (8S,11S,15S,18S,23aS,25S,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-6,12,16,19,33,36-六甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(148) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(149) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(150) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(151) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(152) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(153) (3S,9S,12S,18S,27S,30S,34R)-12-[2-(3-氯苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(154) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(丙氧基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(155) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,12,16,19,33,36-六甲基-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(156) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-29-异丁基-36-异丙基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(157) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-8-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(158) (6S,9S,13R,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(159) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(160) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-乙基-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(161) (3S,9S,18S,21S,25S,28S,34S) -21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(4-碘苯基)甲基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(162) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-28-(2-甲磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(163) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-5,12,16,19,33,36-六甲基-11-戊基-35- (丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(164) (3S,9S,18S,21S,25S,28S,34S) -18-烯丙基-3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(165) (3S,9S,12S,18S,27S,30S,34R) -9-丁基-18- [(4-氯苯基) 甲基] -12- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(166) (3S,9S,12S,18S,27S,30S,34S) -18- (环己基甲基) -12- [(3-碘苯基) 甲基] -3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -34- (哌啶-1-羰基) -9- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(167) (3S,9S,18S,21S,25S,28S,34S) -3- [2- (4-氯苯基) 乙基] -9- (环戊基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(168) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-6- [(2-氯苯基) 甲基] -18- [(4-氯苯基) 甲基] -12- [(3-碘苯基) 甲基] -3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27- [(1S) -1-甲基丙基] -34- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(169) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31- (环己基甲基) -25- [(3-碘苯基) 甲基] -9,16-二异丁基-22- [(4-甲氧基苯基) 甲基] -3,4,10,14,19,19,20,29,32-九甲基-6- [(1S) -1-甲基丙基] -13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(170) (3S,9S,12S,18S,27S,30S,34R) -18- [(4-氯苯基) 甲基] -3,9-二异丁基-1,6,6,16,19,22,25,30,31,34-十甲基-27- [(1S) -1-甲基丙基] -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(171) (8S,11S,17S,26S,29S,33S,36S) -11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -17- (环己基甲基) -8- [(3,4-二氟苯基) 甲基] -36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26- [(1S) -1-甲基丙基] -33- (哌啶-1-羰基) -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(172) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18- (环丙基甲基) -11-异丁基-5,6,12,16,19,33,36-

七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(173) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)-9-[4-(三氟甲基)苯基]甲基螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(174) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-(2-(甲基磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(175) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(176) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(177) (8S,11S,17S,26S,29S,33S,36S)-11-[2-(4-氯苯基)乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(178) (6S,9S,13R,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(179) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(3-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(180) 3-((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺

[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)-N-甲基丙酰胺,

(181) (5S,8S,12R,15S,20aS,26S,32S,34aS,38aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-8-异丁基-15-异丙基-9,12,16,30,33-五甲基二十二氢-25H-螺[双(氮杂环丁二烯并[1,2-g:1',2'-j]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,38(2H,11H,19H,34aH))-十一酮,

(182) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H))-十一酮,

(183) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(184) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-18-[(4-氯苯基)甲基]-12-[(3-氟苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(185) (6'S,9'S,13'R,16'S,21a'S,27'S,33'S,38a'S)-6'-((S)-仲丁基)-27'-(3-氯-4-(三氟甲基)苯乙基)-33'-(环己基甲基)-9'-异丁基-16'-异丙基-10',13',17',31',34',37'-六甲基二十二氢-1'H-螺[环戊烷-1,19'-二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',15',18',21',26',29',32',35',38'(12'H,20'H,38a'H))-十一酮,

(186) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(3-氯苄基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H))-十一酮,

(187) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(188) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(4-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(189) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-30-异丙

基-4,10,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,25,28,31]-十一氮杂双环[32.4.0]三十八烷-6,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(190) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(191) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(192) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(间甲苯基甲基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(193) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-18-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-8-(戊烷-3-基)三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(194) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(3-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(195) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(196) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(197) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(198) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(199) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S) -1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(200) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(环丙基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S) -1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(201) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S) -仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(202) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-12-[(3-氯-5-氟-苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(203) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S) -仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(204) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-7-环丙基-21-异丁基-28-异丙基-10,13,16,22,25,29-六甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(205) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S) -1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(206) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(4-氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(207) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S) -仲丁基)-29-(3-氯-4-(三氟甲

基) 苄乙基) -35- (4-氯苄基) -11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(208) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基] -9-(环己基甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基] -25-(哌啶-1-羰基) -28-(2,2,2-三氟乙氧基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(209) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基) -29-(3-氯-4-(三氟甲基) 苄乙基) -5,12,16,19,33,36-六甲基-11-戊基-15-(吡咯烷-1-羰基) -35-(4-(三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(210) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基] -9-(环己基甲基) -16-乙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(211) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基) -35-(环己基甲基) -29-(3-氟-4-(三氟甲基) 苄乙基) -11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(212) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基] -9-(环丁基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(213) (4R,7S,13S,16S,22S,31S,34S) -16-[2-[3-氯-4-(三氟甲基) 苯基] 乙基] -22-(环己基甲基) -7,13-二异丁基-4,8,14,20,23,26,29-七甲基-31-[(1S)-1-甲基丙基] 螺[1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-10,1'-环戊烷]-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(214) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苄基) 甲基] -3,9-二异丁基-1,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基] -12-[2-[4-(三氟甲基) 苄基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(215) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基) -22-丁基-29-(3-氯-4-(三氟甲基) 苄乙基) -11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基) -4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(216) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-[(2-氯苯基) 甲基]-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(217) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-8,29,36-三异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(218) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-N,N,9,15,18,21,24,30,34,37-十甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

(219) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(220) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(221) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-环丁基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(222) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(2,2,2-三氟乙基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(223) (3S,9S,18S,21S,25R,28S,31R,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(224) (3S,6S,9S,12S,18S,27S,30S,34S) -6,9-二苄基-12-[(3-氯苯基) 甲基]-18-[(4-氯苯基) 甲基]-25-乙基-3-异丙基-4,7,16,19,22,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(225) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11- 环戊基-18- 异丙基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(226) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -18- (环丁氧基甲基) -28- 环己基-9- (环己基甲基) -21- 异丁基-7,10,13,16,22,26,29- 七甲基-25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(227) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S) -21'- ((S) - 仲丁基) -12'- (4-氯苄基) -34'- 异丁基-10',13',16',19',31',35'- 六甲基-6'- (4- (三氟甲基) 苯乙基) 二十四氢螺[环戊烷-1,37'- 吡啶并[1,2-a] 吡咯并[1,2-v] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39' (23a'H,30'H,38'H) - 十一酮,

(228) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18- ((R) -1- 羟基乙基) -11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(229) (3S,9S,18S,21S,25S,28S,34S) -9- [(4-氯苄基) 甲基] -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21- 异丁基-28- 异丙基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(230) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21- (环丁基甲基) -9- (环己基甲基) -28- 异丙基-7,10,13,16,22,25,29- 七甲基-18- [(1S) -1- 甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(231) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,25,29- 七甲基-18- [(1S) -1- 甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环己烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(232) (3S,6S,9S,12S,18S,27S,30S,34S) -9- 丁基-12- [(3-碘苄基) 甲基] -3,30- 二异丁基-1,6,7,16,19,22,25,31- 八甲基-27- [(1S) -1- 甲基丙基] -34- (哌啶-1- 羰基) -18- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(233) 2- [(3S,6S,9S,12S,18S,27S,30S,34S) -6- 苄基-18- [(4-氯苄基) 甲基] -3- 异丁基-4,7,16,19,22,25,30,31- 八甲基-27- [(1S) -1- 甲基丙基] -2,5,8,11,14,17,20,23,26,29,32- 十一氧代-34- (吡咯烷-1- 羰基) -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-9- 基] 甲氧基] -N- 叔丁基- 乙酰胺,

(234) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(235) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(2-(甲基磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(236) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(237) (3S,9S,18S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-[(3-氟苯基)甲基]-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(238) 3-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(239) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(240) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-6-乙基-30-异丁基-3-异丙基-1,4,10,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(241) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(242) (3S,9S,18S,21S,25R,28S,31S,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-

2,5,8,11,14,17,20,23,27,30,33-十一酮,

(243) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(244) (3S,9S,18S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-25-[(2-羟基-2-甲基-丙氧基)甲基]-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(245) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(246) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(247) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(248) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环丙基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(249) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(250) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-22-(异戊氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(251) (7S,10S,16S,25S,28S,32S,35S) -10-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-(环己基甲基)-7-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-28-异丁基-35-异丙基-8,14,17,20,23,29,33,36-八甲基-25-[(1S)-1-甲基丙基]-32-(哌啶-1-羰基)-5,8,11,14,17,

20,23,26,29,33,36-十一氮杂螺[3.33]三十七烷-6,9,12,15,18,21,24,27,30,34,37-十一酮,

(252) 3-[[(3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-12-基]甲基]苄腈,

(253) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(254) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-((2,2,2-三氟乙氧基)甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(255) (9'S,12'S,16'S,19'S,24a'S,26'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环己基-36'-(环己基甲基)-12'-异丁基-7',13',17',20',34',37'-六甲基-26'-苄基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(256) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(257) (3S,9S,12S,18S,27S,30S,34R) -9-丁基-18-[(4-氯苯基)甲基]-19-乙基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,22,25,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(258) (3S,9S,18S,21S,25R,28S,34S) -9-[(4-氯苯基)甲基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(259) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-6-[(2-甲氧基苯基)甲基]-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(260) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-5-((R)-1-羟基乙基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(261) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(262) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(263) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(264) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(265) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-(2-苯基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(266) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(267) (8S,11S,15R,18S,23aS,29S,31aR,38S,40aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-6,11,12,15,19,39-六甲基二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40(14H,22H,31aH)-十一酮,

(268) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(269) (3S,9S,18S,21S,25R,28S,34S)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯

基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(270) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-18-环戊基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(271) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(272) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(273) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(274) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(275) (3S,9S,18S,21S,25R,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(276) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(277) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(278) 2-((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-4,7,10,13,

17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-8-基)乙腈,

(279) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(280) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环丙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(281) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环己基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(282) (8S,11S,17S,26S,29S,33S,36S) -8-[(3-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(283) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(284) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(285) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,21-双(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(286) (4R,7S,13S,16S,22S,31S,34S) -22-[(4-氯苯基)甲基]-7,13-二异丁基-4,8,10,10,14,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(287) (3S,9S,18S,21S,25S,28S,31R,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-

[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(288) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(289) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-35-(丙氧基甲基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(290) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁基甲基)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(291) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-5,6,11,12,15,19,21,21,22,33,36-十一甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(292) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(293) (5S,8S,11S,15S,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-异丙基-5,6,11,12,16,19,38-七甲基-15-(哌啶-1-羰基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(294) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,9,15,18,21,24,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(295) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(296) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-

i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(297) (6'S,9'S,13'S,16'S,25'S,31'S,33a'S,37a'S,38a'S)-16'-((S)-仲丁基)-31'- (3-氯-4-(三氟甲基)苯乙基)-6'-环己基-25'-(环己基甲基)-13'-异丁基-5',8',12',18',21',24',27'-七甲基-9'-(哌啶-1-羰基)二十六氢-4'H-螺[环戊烷-1,3'-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡咯]-1',4',7',11',14',17',20',23',26',29',32'(2'H,8'H)-十一酮,

(298) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(299) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(300) (3S,9S,18S,21S,25R,28S,34S)-21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(4-碘苯基)甲基]-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(301) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(302) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(303) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(304) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-((2,2,2-三氟乙氧基)甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(305) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-16,28-二异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(306) 3-[(3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]丙烯酸烯丙酯,

(307) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(308) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(309) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁氧基甲基)-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(310) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(3,4-二氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(311) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(312) (3S,9S,12S,18S,27S,30S,34S) -18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(313) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,

31,34,37 (14H,22H) - 十一酮,

(314) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 35- (环己基甲基) - 18- 环戊基-11- 异丁基-N,N,5,6,12,16,19,21,33,36- 十甲基-4,7,10,13,17,20,23,28,31,34,37- 十一氧代三十六氢-2H- 氮杂环丁二烯并 [2,1-u] 吡咯并 [2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-15- 甲酰胺,

(315) (3S,9S,12S,18S,27S,30S,34R) - 18- [(4-氯苯基) 甲基] - 3,9,30- 三异丁基-1,6,6,7,16,19,22,25,31,34- 十甲基-27- [(1S) - 1- 甲基丙基] - 12- [2- [4- (三氟甲基) 苯基] 乙基] - 1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(316) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8,18- 二 ((S) - 仲丁基) - 29- (3-氟-4- (三氟甲基) 苯乙基) - 11- 异丁基-N,N,5,6,12,16,19,33,36- 九甲基-4,7,10,13,17,20,23,28,31,34,37- 十一氧代-35- (丙氧基甲基) 三十四氢-2H,4H- 螺 [氮杂环丁二烯并 [2,1-u] 吡咯并 [2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 15- 甲酰胺,

(317) (8S,11S,17S,26S,29S,33S,36S) - 8- [(2-氯苯基) 甲基] - 11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 17- (环己基甲基) - 36- 异丙基-N,N,9,15,18,21,24,29,30,34,37- 十一甲基-26- [(1S) - 1- 甲基丙基] - 7,10,13,16,19,22,25,28,31,35,38- 十一氧代-6,9,12,15,18,21,24,27,30,34,37- 十一氮杂螺 [4.33] 三十八烷-33- 甲酰胺,

(318) (5S,8S,12S,15S,20aS,26S,32S,34aS,38aS) - 5- ((S) - 仲丁基) - 26- (3-氯-4- (三氟甲基) 苯乙基) - 32- (环己基甲基) - 8- 异丁基-15- 异丙基-9,13,16,30,33- 五甲基-12- (哌啶-1- 羰基) 二十二氢-25H- 螺 [双 (氮杂环丁二烯并) [1,2-g:1',2'-j] 吡咯并 [1,2-v] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-18,1'- 环戊烷] - 4,7,10,14,17,20,25,28,31,34,38 (2H,11H,19H,34aH) - 十一酮,

(319) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 18- 环己基-25,25- 二氟-11- 异丁基-5,6,12,15,16,19,33,36- 八甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H- 螺 [氮杂环丁二烯并 [2,1-u] 吡咯并 [2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(320) (3S,9S,12S,18S,27S,30S,34S) - 18- (环己基甲基) - 12- [(3-碘苯基) 甲基] - 3,30- 二异丁基-9- [(4-甲氧基苯基) 甲基] - 1,6,6,7,16,19,22,25,31- 九甲基-27- [(1S) - 1- 甲基丙基] - 34- (哌啶-1- 羰基) - 1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(321) (3S,9S,18S,21S,25S,28S,34S) - 3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 9,21- 双 (环己基甲基) - 28- 异丙基-7,10,13,16,22,26,29- 七甲基-18- [(1S) - 1- 甲基丙基] - 25- (哌啶-1- 羰基) 螺 [1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环 [32.3.0] 三十七烷-31,1'- 环戊烷] - 2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(322) (3S,9S,18S,21S,25R,28S,31S,34S,36R) - 31- 苄基-9- [(4-氯苯基) 甲基] - 36- 乙氧基-28- 异丁基-7,10,13,16,21,22,25,29,32- 九甲基-18- [(1S) - 1- 甲基丙基] - 3- [2- [4-

(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(323) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(324) (10'S,13'S,17'S,20'S,25a'S,31'S,37'S,39a'S)-10'-((S)-仲丁基)-37'-(环己基甲基)-31'-(3,4-二氯苯乙基)-13'-异丁基-20'-异丙基-8',14',18',21',35',38'-六甲基-17'-(哌啶-1-羰基)二十四氢-2'H,6'H-螺[环戊烷-1,23'-吡啶并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',19',22',25',30',33',36',39'(16'H,24'H)-十一酮,

(325) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(326) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(327) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(328) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-氯苯基)甲基]-10-乙基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,13,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(329) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-(2-乙氧基乙基)-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(330) (3S,9S,12S,18S,27S,30S,34S)-9-[(4-氯苯基)甲基]-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(331) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(332) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-9,27-双[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(333) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环戊基-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(334) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(335) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(邻甲苯基甲基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(336) (3S,9S,12S,18S,27S,30S,34S) -18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(337) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(338) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-[(5-甲基-3-吡啶基)甲基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(339) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(340) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22,31-双(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(341) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(342) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(343) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(344) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(345) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(346) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(347) (6'S,12'S,21'S,24'S,26a'R,29a'R,32'S,37a'S)-21'-((S)-仲丁基)-6'- (3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-24'-异丁基-32'-异丙基-10',13',16',19',25',33'-六甲基二十六氢螺[环戊烷-1,35'-环戊并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',31',34',37'(36'H)-十一酮,

(348) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(349) (5S,8S,11S,15S,18S,23aS,29S,31aR,38S,40aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-5,6,11,12,16,19,39-七甲基-15-

(哌啶-1-羰基)二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40(14H,22H,31aH)-十一酮,

(350) (8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,33,34,37-九甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(351) (3S,6S,9S,12S,18S,27S,30S)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(352) (2aS,5S,11S,14S,20S,23S,30aS,33S)-33-((S)-仲丁基)-14-丁基-11-(3-氯-4-(三氟甲基)苯乙基)-5-(4-氯苄基)-20-异丁基-4,7,16,17,17,22,35-七甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

(353) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(354) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,21,21,33,36-九甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(355) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(356) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(357) 2-[[(3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(358) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-

15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(359) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(360) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(361) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,9,10,13,16,21,22,25,29-十甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(362) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苄基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(363) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(364) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苄基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(365) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苄基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(366) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(367) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(368) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(369) (3S,9S,18S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(370) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(371) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(372) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-7,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(373) 3-[[(3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-12-基]甲基]苄腈,

(374) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(375) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七

烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(376) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-9-[[3-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(377) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(378) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(379) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(380) (3S,6R,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(381) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(382) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,22,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(383) (3S,9S,18S,21S,25R,28S,31S,34S) -9-[(4-氯苯基)甲基]-31-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(384) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)螺

[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(385) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(386) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(387) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-((2,2,2-三氟乙氧基)甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(388) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(4-氟苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(389) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(390) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(391) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(392) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基

丙基]-13-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(393) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环戊基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(394) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-21-乙基-11-异丁基-18-异丙基-5,6,12,16,19,21,33,36-八甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(395) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-7-乙基-21-异丁基-28-异丙基-10,13,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(396) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,35,36-十甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(397) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-11-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(398) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-12-[2-(对甲苯基)乙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(399) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环戊基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(400) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(401) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苄基) -18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(402) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -3-[2-[3-氟-4- (三氟甲基) 苄基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(403) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基) -8,18-二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -11-异丁基-5,6,12,16,19,33,36-七甲基-35- (丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(404) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S) -仲丁基) -29- (3-氟-4- (三氟甲基) 苄基) -11-异丁基-5,6,12,15,16,19,33,36-八甲基-35- (4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(405) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苄基]乙基]-9- (环己基甲基) -21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S) -1-甲基丙基]-13-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(406) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苄基) 甲基]-3,9-二异丁基-1,4,7,16,19,22,25,30,34-九甲基-27-[(1S) -1-甲基丙基]-12-[2-[4- (三氟甲基) 苄基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(407) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -3-[2-[3-氟-4- (三氟甲基) 苄基]乙基]-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(408) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基) -8,18-二((S) -仲丁基) -29- (3-氟-4- (三氟甲基) 苄基) -11-异丁基-5,6,12,16,19,33,36-七甲基-35- (丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(409) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S) -仲丁基) -35- (环己基甲基) -29- (3-氟-4- (三氟甲基) 苄基) -11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,

16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(410) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(411) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(412) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-异丙基-7',10',13',18',19',22',26'-七甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

(413) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-乙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(414) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(415) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(416) (7S,10S,14R,17S,22aS,28S,34S,36aS,40aS)-7-((S)-仲丁基)-28-(3-氯-4-(三氟甲基)苯乙基)-34-(环己基甲基)-10-异丁基-17-异丙基-11,14,18,32,35-五甲基二十四氢-27H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-20,1'-环戊烷]-6,9,12,16,19,22,27,30,33,36,40(2H,13H,21H,36aH)-十一酮,

(417) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(418) (6S,9S,13R,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-

[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(419) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-11-(2-(甲基磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(420) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(421) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(422) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(423) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-19-乙基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(424) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(425) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(5,5-二氟戊基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(426) (3S,9S,12S,18S,27S,30S,34S)-9-[(2-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,6,6,10,16,19,22,25,30,31-十一甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(427) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基

丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(428) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-苯基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(429) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-异丁基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(430) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(431) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3,5-二氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(432) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(433) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(434) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(435) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5-((异戊氧基)甲基)-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(436) (3S,9S,12S,18S,27S,30S,34R)-25-丁基-18-[(4-氯苯基)甲基]-3,9-二异丁

基-4,6,6,10,16,19,22,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(437) (3S,9S,18S,21S,25S,28S,34S)-25-(氮杂环丁烷-1-羰基)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(438) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(439) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(440) 2-[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-18-基]乙腈,

(441) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(噻唑-4-基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(442) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(443) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-6-乙基-11-异丁基-18-异丙基-5,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(444) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3-异丙基-1,4,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(445) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧

基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(446) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(447) (8S,11S,15S,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-异丙基-6,11,12,16,19,38-六甲基-15-(哌啶-1-羰基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(448) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(449) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(间甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(450) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-((R)-1-羟基乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(451) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁基甲基)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(452) (8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(453) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,19,33,36-六甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(454) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,26,29,31,31,32-十二甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(455) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环丁基甲基)-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(456) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环己基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(457) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-9-乙基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(458) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)-29-(4-(三氟甲基)苯乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(459) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(2-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(460) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-(4,4-二氟-1-哌啶基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(461) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(462) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苯基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,

23,28,31,34,37 (14H,22H) - 十一酮,

(463) (3S,9S,12S,18S,27S,30S,34S) - 12- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 18- (环己基甲基) - 9- [2- (4,4-二氟-1-哌啶基) - 2-氧代-乙基] - 30- 异丁基-3- 异丙基-1,4,6,6,10,16,19,22,25,31- 十甲基-27- [(1S) - 1- 甲基丙基] - 34- (哌啶-1-羰基) - 1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(464) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 35- (2-氯苄基) - 18- 环戊基-5,6,11,12,15,19,32,33,36- 九甲基二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(465) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 11- 环丁基-35- (环己基甲基) - 18- 异丙基-5,6,12,15,19,33,36- 七甲基二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(466) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) - 8- ((S) - 仲丁基) - 18- 环戊基-29- (3,5-二氟-4- (三氟甲基) 苯乙基) - 25- 乙氧基-36- 乙基-11- 异丁基-5,6,12,15,16,19,33- 七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(467) (3S,6S,9S,12S,18S,27S,30S,34S) - 6,9- 二苄基-18- [(4-氯苯基) 甲基] - 3- 异丙基-4,7,16,19,22,25,30,31- 八甲基-27- [(1S) - 1- 甲基丙基] - 12- (间甲苯基甲基) - 34- (吡咯烷-1-羰基) - 1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(468) (3S,9S,18S,21S,25S,28S,34S) - 3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 9- (环己基甲基) - 21- 异丁基-28- 异丙基-7,10,13,16,22,26,29- 七甲基-18- [(1S) - 1- 甲基丙基] - 25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0]三十七烷-31,1'- 环丙烷] - 2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(469) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 15- (3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基) - 8,18- 二 ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 35- (环己基甲基) - 11- 异丁基-5,6,12,16,19,33,36- 七甲基二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(470) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 11- 异丁基-35- ((异戊氧基) 甲基) - 18- 异丙基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] - 4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(471) (3S,9S,12S,18S,27S,30S,34R) - 9- 苄基-18- [(4-氯苯基) 甲基] - 12- [2- [3-氟-

4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(472) (6S,9S,13S,16S,19S,22S,25S,31S,34S)-19-苄基-22-丁基-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,20,29,32-六甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(473) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-12-[(3-三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(474) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(475) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(476) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(477) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-22-[(5-甲基-3-吡啶基)甲基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(478) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(479) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-[(6-(三氟甲基)-3-吡啶基)甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,

21,24,27,30,33-十一酮,

(480) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(481) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(482) (3S,6R,9S,18S,21S,25R,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(483) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-6-[(3-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(484) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(485) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-8-((异戊氧基)甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(486) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(487) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(488) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(489) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(吡啶-3-基甲基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(490) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环丙基-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(491) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(492) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(2-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(493) (3S,6R,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3-异丙基-1,4,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(494) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(495) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(496) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((R)-1-羟基乙基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊

烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(497) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-8-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(498) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(499) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-7,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(500) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(噻唑-4-基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(501) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(502) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(503) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(504) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-13-乙基-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(505) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(506) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (氮杂环丁烷-1-羰基) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18- 环戊基-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35- (4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(507) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -28-异丙基-7,10,13,16,21,22,26,29,31,31,32-十一甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(508) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18- [(1S) -1-甲基丙基] -25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(509) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -5,6,12,16,19,33,36-七甲基-11-戊基-15- (吡咯烷-1-羰基) -35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(510) (3S,9S,18S,21S,25R,28S,34S,36R) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(511) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环丙基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(512) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27- [(1S) -1-甲基丙基] -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂双环[32.4.0]三十八烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(513) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18- [(4-氯苯基) 甲基] -9- [(5-氟-3-吡啶基) 甲氧基甲基] -3-异丁基-4,7,16,19,22,25,30,31-八甲基-27- [(1S) -1-甲基丙基] -34- (吡咯烷-1-羰基) -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(514) (6'S,9'S,13'S,16'S,25'S,31'S,38a'S) -16'- ((S) -仲丁基) -31'- (3-氯-4- (三氟甲基) 苯乙基) -6'-环己基-25'- (环己基甲基) -13'-异丁基-5',8',12',18',21',24',27'-七甲基-9'- (哌啶-1-羰基) -5',6',9',10',12',13',15',16',18',19',21',22',24',25',27',28',30',31',38',38a'-二十氢-4'H-螺[环戊烷-1,3'- [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯并[10,9-a]吡啶]-1',4',7',11',14',17',20',

23', 26', 29', 32' (2'H, 8'H) - 十一酮,

(515) (5S, 8S, 11S, 15S, 18S, 23aS, 29S, 35S, 37aS) - 15- (氮杂环丁烷-1-羰基) - 8- ((S) - 仲丁基) - 29- (3-氯-4- (三氟甲基) 苯乙基) - 35- (环己基甲基) - 18- 环戊基-11-异丁基-5, 6, 12, 16, 19, 33, 36-七甲基二十二氢-2H, 4H-螺[氮杂环丁二烯并[2, 1-u]吡咯并[2, 1-i][1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31]十一氮杂环三十四碳十七烯-21, 1'-环戊烷]-4, 7, 10, 13, 17, 20, 23, 28, 31, 34, 37 (14H, 22H) - 十一酮,

(516) (9'S, 12'S, 16'R, 19'S, 24a'S, 30'S, 33'R, 36'S, 38a'S) - 9' - ((S) - 仲丁基) - 30' - (3-氯-4- (三氟甲基) 苯乙基) - 36' - (环己基甲基) - 19' - 异丙基-7', 12', 13', 16', 20', 33', 34', 37' - 八甲基二十四氢-5'H-螺[环戊烷-1, 22' - 二吡咯并[2, 1-i: 2', 1'-u][1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31]十一氮杂环三十四碳十七烯]-5', 8', 11', 14', 18', 21', 24', 29', 32', 35', 38' (15'H, 23'H) - 十一酮,

(517) (3S, 6S, 9S, 12S, 18S, 27S, 30S, 34S) - 18- [(4-氯苯基) 甲基] - 6- [(5-氟-3-吡啶基) 甲氧基甲基] - 3, 9-二异丁基-4, 7, 16, 19, 22, 25, 30, 31-八甲基-27- [(1S) - 1-甲基丙基] - 34- (吡咯烷-1-羰基) - 12- [2- [4- (三氟甲基) 苯基] 乙基] - 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31-十一氮杂环三十四烷-2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32-十一酮,

(518) (3S, 9S, 18S, 21S, 25S, 28S, 34S) - 3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 28- 环己基-9- (环己基甲基) - 7, 10, 13, 16, 22, 26, 29-七甲基-18- [(1S) - 1-甲基丙基] - 25- (哌啶-1-羰基) - 21- (2, 2, 2-三氟乙氧基甲基) 螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮,

(519) (8S, 11S, 17S, 26S, 29S, 33S, 36S) - 11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 17- (环己基甲基) - 36-异丙基-9, 15, 18, 21, 24, 29, 30, 34, 37-九甲基-26- [(1S) - 1-甲基丙基] - 33- (哌啶-1-羰基) - 8- (3-吡啶基甲基) - 6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮,

(520) (3S, 9S, 18S, 21S, 25R, 28S, 34S) - 3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 9- (环己基甲基) - 21-异丁基-28-异丙基-7, 10, 13, 16, 22, 25, 29-七甲基-18- [(1S) - 1-甲基丙基] 螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环丁烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮,

(521) (6S, 9R, 13S, 16S, 25S, 31S, 33aS, 37aS, 38aS) - 16- ((S) - 仲丁基) - 25- (4-氯苄基) - 6-异丁基-3, 3, 5, 9, 12, 13, 18, 21, 24, 27-十甲基-31- (4- (三氟甲基) 苯乙基) 二十八氢- [1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31]十一氮杂环三十四碳十七烯并[10, 9-a]吡啶-1, 4, 7, 11, 14, 17, 20, 23, 26, 29, 32 (8H) - 十一酮,

(522) (3S, 9S, 18S, 21S, 25S, 28S, 34S) - 9- (环己基甲基) - 3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] - 21-异丁基-28-异丙基-7, 10, 13, 16, 22, 26, 29, 31, 31-九甲基-18- [(1S) - 1-甲基丙基] - 25- (哌啶-1-羰基) - 1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮,

(523) (8S, 11S, 17S, 26S, 29S, 33S, 36S) - 11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] - 36- 环己基-17- (环己基甲基) - 8- (3, 3-二氟丙基) - 29-异丁基-9, 15, 18, 21, 24, 30, 34, 37-八甲基-26- [(1S) - 1-甲基丙基] - 33- (哌啶-1-羰基) - 6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮,

(524) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- 环丁基-18- 环戊基-11- 异丁基-5,6,12,19,33,36- 六甲基-15- (哌啶-1- 羰基) -16- 丙基二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(525) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18- 环戊基-25- 乙氧基-36- 乙基-11- 异丁基-5,12,15,16,19,33- 六甲基-35- (4- 甲基苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(526) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- 环己基-11- 异丁基-18- 异丙基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(527) (6S,9S,13S,16S,22S,25S,31S,34S) -22- 苄基-25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -16- 环己基-31- (环己基甲基) -9- 异丁基-4,10,14,17,23,29,32- 七甲基-6- [(1S) -1- 甲基丙基] -13- (哌啶-1- 羰基) 螺[1,4,7,10,14,17,20,23,26,29,32- 十一氮杂双环[32.2.0] 三十六烷-19,1'- 环戊烷] -2,5,8,11,15,18,21,24,27,30,33- 十一酮,

(528) (3S,9S,18S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28- 环己基-9- (环己基甲基) -25- [(4- 氟苯基) 甲基] -7,10,13,16,26,29- 六甲基-18- [(1S) -1- 甲基丙基] 螺[1,4,7,10,13,16,19,23,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,24,27,30,33- 十一酮,

(529) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18- 二((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -11- 异丁基-5,6,12,15,16,19,33,36- 八甲基-35- (丙氧基甲基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(530) (6'S,9'S,13'S,16'S,21a'S,27'S,33'S,38a'S) -6'- ((S) - 仲丁基) -27'- (4- 氯苯乙基) -33'- (环己基甲基) -9'- 异丁基-16'- 异丙基-10',14',17',31',34',37'- 六甲基-13'- (哌啶-1- 羰基) 二十二氢-1'H- 螺[环戊烷-1,19'- 二吡咯并[1,2-g:1',2'-v] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯] -5',8',11',15',18',21',26',29',32',35',38' (12'H,20'H,38a'H) - 十一酮,

(531) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18- 环戊基-12- 乙基-11- 异丁基-5,6,15,19,33,36- 六甲基-35- (4- 甲基苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(532) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环

己基甲基)-28-环戊基-26-乙基-7,10,13,16,21,22,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(533) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环丙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(534) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(535) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(536) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-6-(环己基甲基)-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(537) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,18-双(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(538) (3S,6S,10R,13S,19S,22S,28S,34S)-28-[(4-氯苯基)甲基]-13,19-二异丁基-6-异丙基-7,10,14,20,26,29,32-七甲基-3-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,11,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-16,1'-环戊烷]-2,5,8,12,15,18,21,24,27,30,33-十一酮,

(539) (3S,6R,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(540) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(541) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环

[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(542) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-环丙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(543) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-10-乙基-21-异丁基-7,13,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(544) (3S,9S,18S,21S,25S,28S,34S,36S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(545) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(546) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苄基)甲基]-3,9-二异丁基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(547) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(548) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-丙基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(549) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苄基)-36'-(4-氯苄基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(550) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,

5,8,11,14,17,20,23,27,30,33-十一酮,

(551) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(552) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18,28-二环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(553) (8S,11S,15S,18S,23aS,29S,31aR,38S,40aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-6,11,12,16,19,39-六甲基-15-(哌啶-1-羰基)二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40(14H,22H,31aH)-十一酮,

(554) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(555) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(556) (3S,9S,12S,18S,27S,30S,34S) -9-[(2-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(557) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(3-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(558) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(559) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,

13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(560) (3S,9S,18S,21S,25R,28S,31S,34S) -9-[(4-氯苯基) 甲基]-28-异丁基-31-异丙基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(561) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-(环丙基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(562) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(563) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(564) 4-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基] 甲基] 苄腈,

(565) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-环丙基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(566) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-9-丁基-18-[(4-氯苯基) 甲基]-12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-3,30-二异丁基-1,7,16,19,22,25,31,34-八甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(567) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(568) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-N,N,5,6,12,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡

咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(569) (6S,12S,21S,24S,26aR,30aR,33S,38aS) -21-((S)-仲丁基)-6-(3-氯-4-(三氟甲基)苯乙基)-12-(环己基甲基)-24-异丁基-33-异丙基-10,13,16,19,34-五甲基二十六氢-5H-螺[苯并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-36,1'-环戊烷]-5,8,11,14,17,20,23,26,32,35,38(26aH,37H)-十一酮,

(570) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环戊基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(571) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(572) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,35-双(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(573) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(574) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(575) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(576) (3S,9S,18S,21S,25R,28S,34S) -3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(577) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,28-双(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(578) (3S,9S,18S,21S,25R,28S,34S) -9-[4-氯苯基]甲基]-21-(环己基甲基)-28-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(579) (3S,9S,18S,21S,25R,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(580) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-8-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(581) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S) -21'-((S)-仲丁基)-6'-(3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-34'-异丙基-10',13',16',19',31',35'-六甲基二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

(582) (3S,6S,9S,12S,18S,27S,30S,34S) -18-[4-氯苯基]甲基]-6-[2-羟基-2-甲基-丙氧基]甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(583) (8S,11S,17S,26S,29S,33R,36S) -17-[4-氯苯基]甲基]-29-(环己基甲基)-8,36-二异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(584) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(4-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(585) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁氧基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(586) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异戊基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(587) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(588) (3S,6S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-3,9-二异丁基-6-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(589) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(590) 3-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]-N-甲基-丙酰胺,

(591) (3S,9S,18S,21S,25S,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(592) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-[(6-甲氧基-3-吡啶基)甲基]-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(593) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(594) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(595) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-30-(环己基甲基)-3,9-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(596) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(597) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(3,4-二氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(598) (5S,8S,11S,15R,18S,21R,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-21-异丙基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(599) (8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(600) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(601) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(602) (3S,9S,12S,18S,27S,30S,34R) -22-丁基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(603) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十

七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(604) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -19-苄基-25-[(3-碘苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,9,10,14,20,22,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(吡咯烷-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(605) (3S,9S,18S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-[(2-羟基-2-甲基-丙氧基)甲基]-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(606) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苄基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(607) (8S,11S,17S,26S,29S,33S,36S) -11-[2-(4-氯苯基)乙基]-8-[(2-氯苯基)甲基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(608) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(609) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-9-(间甲基苯基甲基)-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(610) (8S,11S,17S,26S,29S,33S,36S) -17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(611) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(612) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3-异丙基-4,7,9,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(613) (3S,6S,9S,12S,18S,27S,30S,34S) -6,12-二苄基-18-[(4-氯苯基)甲基]-3,9-

二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(614) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-22-[(6-甲氧基-3-吡啶基)甲基]-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(615) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-30-(环己基甲基)-3,9-二异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(616) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(2-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(617) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(618) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-(4-氟苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(619) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,9,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(620) (3S,9S,18S,21S,25S,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(621) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-异丁基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(622) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,12,16,

19,33,36-七甲基-11-戊基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(623) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(624) (3S,6S,9S,12S,18S,27S,30S,34S)-9-[2-(2-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,6,10,16,19,22,25,30,31-十甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(625) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(626) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(627) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(628) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(629) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(630) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(631) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(632) (6S,12S,21S,23aS,31R,34S,37S,39aS) -37-苄基-21-((S)-仲丁基)-12-(4-氯苄基)-34-异丁基-10,13,16,19,31,35,38-七甲基-6-(4-(三氟甲基)苯乙基)二十四氢-1H-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5,8,11,14,17,20,23,29,33,36,39(23aH,30H,39aH)-十一酮,

(633) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-3-(3-苯基丙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(634) (3S,9S,18S,21S,25S,28S,31S,34S,36R) -31-苄基-9-[(4-氯苯基)甲基]-36-乙氧基-3-[(3-碘苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(635) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-[2-(4,4-二氟-1-哌啶基)乙基]-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(636) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-11-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(637) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(638) (6S,9S,13S,16S,22S,25S,31S,34S) -22-[(2-氟苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(639) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(640) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-

(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(641) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(642) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-8-环己基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(643) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(环戊基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(644) (3S,9S,18S,21S,25R,28S,31S,34S)-31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(645) (6S,9S,13R,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-25-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(646) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-(4-氟苯基)乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(647) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(648) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(649) (4R,7S,13S,16S,22S,31S,34S)-22-(环己基甲基)-16-[2-[3-氟-4-(三氟甲基)

苯基]乙基]-7,13-二异丁基-4,5,10,10,11,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(650) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(651) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-乙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(652) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(653) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(654) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(655) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-3-异丙基-6-(甲氧基甲基)-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,27,20,23,26,29,32-十一酮,

(656) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(657) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-12-[(3-氯-5-氟-苯基)甲基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(658) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-3,9-二异丁基-30-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(659) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-29-(3-苯基丙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(660) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-21-异丙基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(661) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-((异戊氧基)甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(662) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-氧杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(663) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(664) (3S,9S,18S,21S,25R,28S,34S) -9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,31,31-十甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(665) (3S,9S,18S,21S,25R,28S,31R,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(666) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(环己基甲基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,

10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

(667) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-35-(环己基甲基)-12-乙基-11-异丁基-18-异丙基-5,6,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(668) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(669) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苄基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-丙-2-炔基-11-[2-[4-(三氟甲基)苄基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(670) (6'S,12'S,21'S,23a'S,31'S,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-6'-(3-氟-4-(三氟甲基)苄基)-34'-异丙基-10',13',16',19',32',35'-六甲基-31'-(哌啶-1-羰基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

(671) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-35-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(672) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环丁基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(673) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(674) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(675) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-3,9-二异丁基-6-(异戊氧基甲基)-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(676) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙氧基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(677) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-N,N,5,6,12,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(678) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(679) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(2,2,2-三氟乙基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(680) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(681) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(2-氟苯基)甲基]-3,30-二异丁基-6,18-双[(4-甲氧基苯基)甲基]-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(682) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-22-[2-(3,3-二氟-1-哌啶基)乙基]-16-异丙基-3,4,9,10,14,17,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,

30,33-十一酮,

(683) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(684) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(685) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟苯乙基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(686) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -31-(环己基甲基)-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(687) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(688) 2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙酸,

(689) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(690) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(691) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环戊基甲基)-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-

[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(692) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(丙氧基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(693) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(694) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(695) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(696) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-6-(邻甲苯基甲基)-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(697) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(698) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(699) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁氧基甲基)-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(700) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,19,33,36-六甲基-15-

(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(701) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(702) (3S,6R,9S,12S,18S,27S,30S,34S)-9-[2-(2-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,6,10,16,19,22,25,30,31-十甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(703) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[3-(3-碘苯基)甲基]-9,16-二异丁基-22-[4-(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(704) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(705) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,31-二异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(706) (3S,9S,12S,18S,27S,30S,34S)-9-[2-(2-氯苯基)甲基]-12-[3-(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(707) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(708) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(709) (6S,9S,13S,16S,21aS,27S,33S,35aS,39aS)-6-((S)-仲丁基)-27-(3-氯-4-(三氟甲基)苯乙基)-33-(环己基甲基)-9-异丁基-16-异丙基-10,14,17,31,34-五甲基-13-

(哌啶-1-羰基)二十二氢-1H,26H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-19,1'-环戊烷]-5,8,11,15,18,21,26,29,32,35,39(12H,20H,35aH,39aH)-十一酮,

(710) 3-[[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(711) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-9-[(4-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(712) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(713) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(714) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,26,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(715) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,22,23,29,32-十二甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(716) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(717) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(718) (8S,11S,17S,26S,29S,33S,36S)-8-[(4-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-

26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(719) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-13-(氮杂环丁烷-1-羰基)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(720) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(721) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(722) (3S,6S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-6,7,10,13,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(723) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(724) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(725) (8S,11S,15S,18S,23aS,31S,37S,39aS)-8-((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-37-(环己基甲基)-11-异丁基-6,12,16,19,35,38-六甲基-15-(哌啶-1-羰基)-1,5,6,8,9,11,12,15,16,18,19,23a,24,31,32,34,35,37,38,39a-二十氢-2H,4H-螺[氮杂环丁二烯并[2',1':21,22][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-21,1'-环戊烷]-4,7,10,13,17,20,23,30,33,36,39(14H,22H)-十一酮,

(726) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-

i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(727) N-叔丁基-2-[[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲氧基]乙酰胺,

(728) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(729) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-(3-甲基丁-2-烯-1-基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(730) (8S,11S,17S,26S,29S,33S,36S)-8-丁基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(731) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(732) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(733) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-8-(环丁基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(734) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(735) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(736) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,22,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(737) (3S,9S,18S,21S,25S,28S,34S) -25-(4-叔丁基哌啶-1-羰基)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(738) (3S,9S,18S,21S,25R,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(739) (3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-6-(丙氧基甲基)-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(740) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-30-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(741) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18,21-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(742) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(743) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(744) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环

己基甲基)-21-异丁基-28-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(745) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-烯丙基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(746) (7'S,16'S,19'S,23'R,26'S,31a'S,37'S,39a'R)-16'-((S)-仲丁基)-37'-(3-氯-4-(三氟甲基)苯乙基)-7'-(环己基甲基)-26'-异丙基-8',11',14',19',20',23',27'-七甲基二十四氢-2'H,6'H-螺[环戊烷-1,29'-吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',18',21',25',28',31',36',39'(22'H,30'H)-十一酮,

(747) (6'S,12'S,21'S,24'S,27a'R,34'S,39a'S)-21'-((S)-仲丁基)-6'-(3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-24'-异丁基-34'-异丙基-10',13',16',19',25',35'-六甲基二十六氢螺[环戊烷-1,37'-吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',33',36',39'(38'H)-十一酮,

(748) (3S,6R,9S,12S,18S,27S,30S,34S)-6-烯丙基-9-[(2-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(749) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(4-(三氟甲基)苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(750) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(751) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(752) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(753) (3S,9S,18S,25R,28S,34S) -25-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(754) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(2-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(755) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环丁氧基甲基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(756) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-[(1R)-1-羟基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(757) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(758) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(759) N-叔丁基-2-[[(8S,11S,17S,26S,29S,33S,36S) -17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-基]甲氧基]乙酰胺,

(760) (2aS,5S,11S,14S,20S,23S,30aS,33S) -33-((S)-仲丁基)-14-丁基-11-(3-氯-4-(三氟甲基)苯乙基)-5-(环己基甲基)-20-异丁基-4,7,16,17,17,22,35-七甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

(761) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(762) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(764) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-9-叔丁基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(765) (3S,9S,12S,18S,27S,30S,34S) -3,9-二丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(766) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(767) 2-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(768) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(769) (8S,11S,17S,26S,29S,33S,36S) -17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(770) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-22-[(5-甲氧基-3-吡啶基)甲基]-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(771) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,

34,37 (14H,22H) - 十一酮,

(772) (3S,9S,12S,18S,27S,30S,34R) - 18-[(4-氯苯基)甲基]-9-环己基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(773) (3S,6R,9S,18S,21S,25R,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(774) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(775) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(776) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(777) (3S,6S,9S,13R,16S,22S,25S,31S,34S) - 25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,13,14,17,23,29,32-九甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(778) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(779) (3S,6S,9S,12S,18S,27S,30S,34S) - 18-[(4-氯苯基)甲基]-6-(5,5-二氟戊基)-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(780) (3S,6S,9S,13S,16S,22S,25S,31S,34S) - 25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-13-(1,1-二氧代-1,4-噻嗪烷-4-羰基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲

基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(781) (6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基) 甲基]-25-[(3-碘苯基) 甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(782) (6S,9S,13R,16S,19S,22S,25S,31S,34S)-19-苄基-31-[(4-氯苯基) 甲基]-25-[2-[3-氟-4-(三氟甲基) 苯基] 乙基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(783) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(3-氯苯基) 甲基]-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(784) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-异丁基-21-异丙基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(785) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(786) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-22-[(6-甲基-3-吡啶基) 甲基]-13-(哌啶-1-羰基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(787) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(788) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基) 甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(789) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-36-

环己基-17-(环己基甲基)-8-[(2-羟基-2-甲基-丙氧基)甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(790) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(791) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-22-[[2-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(792) 2-[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙酸烯丙酯,

(793) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-6-(甲氧基甲基)-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(794) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(795) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(3-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(796) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(5,5-二氟戊基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(797) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(798) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-35-(环己基甲基)-11,15-二异丁基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(799) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(800) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基) 甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-3,27-双[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(801) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-13-异戊基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(802) (3S,9S,18S,21S,25R,28S,34S)-3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(803) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁氧基甲基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(804) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(805) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(806) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(807) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(808) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(809) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)-5-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(810) 3-((5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)-N-甲基丙酰胺,

(811) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(812) (5S,8S,11S,15S,18S,23aS,31S,37S,39aS) -8-((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-37-(环己基甲基)-11-异丁基-5,6,12,16,19,35,38-七甲基-15-(哌啶-1-羰基)-1,5,6,8,9,11,12,15,16,18,19,23a,24,31,32,34,35,37,38,39a-二十氢-2H,4H-螺[氮杂环丁二烯并[2',1':21,22][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-21,1'-环戊烷]-4,7,10,13,17,20,23,30,33,36,39(14H,22H)-十一酮,

(813) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[2-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(814) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(815) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]

螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(816) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(817) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(丙氧基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(818) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(819) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(820) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(821) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(4-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(822) (5S,8S,11S,15S,18S,20aR,26S,29S,35S,37aS) -8-((S)-仲丁基)-26-丁基-29-(3-碘苄基)-11,18-二异丁基-5,6,12,16,33,36-六甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十四氢-4H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-f][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,25,28,31,34,37(2H,14H)-十一酮,

(823) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,39'S,41a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-39'-(环己基甲基)-19'-异丙基-7',12',13',17',20',40'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H,29'H-螺[环戊烷-1,22'-吡啶并[2,1-o]二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',38',41'(15'H,23'H,32a'H)-十一酮,

(824) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环

己基甲基)-28-异丙基-7,10,13,16,21,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-22-丙基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(825) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(826) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(827) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(828) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(829) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,21,33,36-十甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(830) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(3-氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(831) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(832) (3S,9S,12S,18S,27S,30S)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(833) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(834) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,39'S,41a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-39'-(环己基甲基)-19'-异丙基-7',12',13',16',20',40'-六甲基二十六氢-5'H,29'H-螺[环戊烷-1,22'-吡啶并[2,1-o]二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',38',41'(15'H,23'H,32a'H)-十一酮,

(835) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁氧基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(836) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(837) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(838) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(839) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(840) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(841) (6'S,12'S,21'S,23a'S,31'S,34'S,39a'S)-21'-((S)-仲丁基)-6'-(4-氯苯乙基)-12'-(环己基甲基)-34'-异丙基-10',13',16',19',32',35'-六甲基-31'-(哌啶-1-羰基)

基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

(842) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(843) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-8,29,36-三异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(844) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环丙基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(845) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(847) (4R,7S,13S,16S,22S,31S,34S)-22-[(4-氯苯基)甲基]-7,13-二异丁基-4,8,14,20,23,26,29-七甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]螺[1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-10,1'-环戊烷]-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(848) (11S,17S,26S,29S,33S,36S)-9-丁基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(849) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21,28-二环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(850) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(851) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-11-[2-[3-氟-4-(三氟甲基)苯基]乙基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(852) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11- 异丁基-18- 异丙基-6,12,15,19,33,36- 六甲基-5- (丙氧基甲基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(853) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21- 环丁基-28- 环己基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (吗啉-4- 羰基) -9- (丙氧基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(854) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22- 苄基-25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -31- (环己基甲基) -16- 环戊基-9- 异丁基-N,N,3,4,10,14,17,23,29,32- 十甲基-6- [(1S) -1- 甲基丙基] -2,5,8,11,15,18,21,24,27,30,33- 十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32- 十一氮杂双环[32.2.0] 三十六烷-19,1'- 环戊烷]-13- 甲酰胺,

(855) (9'S,12'S,16'S,19'S,24a'S,32'S,38'S,40a'S) -9'- ((S) - 仲丁基) -32'- (3-氯-4- (三氟甲基) 苯乙基) -19'- 环己基-38'- (环己基甲基) -12'- 异丁基-7',13',17',20',36',39'- 六甲基-16'- (哌啶-1- 羰基) -1',2',3',6',7',9',10',12',13',16',17',19',20',24a',25',32',33',35',36',38',39',40a'- 二十二氢-5'H- 螺[环戊烷-1,22'- 吡咯并[2',1':21,22] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯并[10,9-a] 吡啶]-5',8',11',14',18',21',24',31',34',37',40' (15'H,23'H) - 十一酮,

(856) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- 异丁基-N,N,3,4,10,14,17,19,23,29,32- 十一甲基-6,16- 双[(1S) -1- 甲基丙基] -2,5,8,11,15,18,21,24,27,30,33- 十一氧代-31- (对甲苯基甲基) -22- (噻唑-4- 基甲基) -1,4,7,10,14,17,20,23,26,29,32- 十一氮杂双环[32.2.0] 三十六烷-13- 甲酰胺,

(857) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21- 环戊基-28- 异丙基-7,10,13,16,22,25,29- 七甲基-18- [(1S) -1- 甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(858) (3S,9S,12S,18S,27S,30S,34R) -18- (环己基甲基) -9- [[4- (二氟甲基) 苯基] 甲基] -12- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -3,30- 二异丁基-1,6,6,7,16,19,22,25,31,34- 十甲基-27- [(1S) -1- 甲基丙基] -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

(859) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18- 二((S) - 仲丁基) -35- (环己基甲基) -29- (3-氟-4- (三氟甲基) 苯乙基) -11- 异丁基-5,6,12,15,16,19,33,36- 八甲基二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(860) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) - 仲丁基) -35- (环己基甲基) -29- (4-氟苯乙基) -18- 异丙基-5,6,11,12,16,19,33,36- 八甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,

28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(861) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(862) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-((R)-1-羟基乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(863) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(864) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-13-(2-乙氧基乙基)-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(865) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丙基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(866) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(867) 4-[[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(868) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(869) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-

二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(870) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-36,36-二氟-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(871) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(872) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2-乙氧基乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(873) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环己基-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(874) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环丙基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(875) (3S,9S,18S,21S,25S,28S,34S,36R)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(876) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(877) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,28-二环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(878) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-6-(2-苯基乙基)-34-(吡咯烷-1-羰

基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(879) (3S,9S,18S,21S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(880) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(881) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(882) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(883) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(884) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(885) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁氧基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(886) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(887) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-

环己基-17-(环己基甲基)-29-异丁基-8-[(5-甲氧基-3-吡啶基)甲基]-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(888) 4-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(889) N-叔丁基-2-[[(3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]甲氧基]乙酰胺,

(890) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(891) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(892) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(893) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(894) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(895) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-19-乙基-3,30-二异丁基-1,6,6,7,16,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(896) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环

戊烷]-15-甲酰胺,

(897) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3-环己基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(898) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(899) (11S,17S,26S,29S,33S,36S)-9-烯丙基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(900) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(901) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环戊基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(902) (3S,9S,18S,21S,25R,28S,31S,34S)-9-[(4-氯苯基)甲基]-28,31-二异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(903) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(4-氯苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(904) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(905) (3S,6S,10R,13S,19S,22S,28S,34S)-28-(环己基甲基)-22-[2-[3-氟-4-(三氟甲基)苯基]乙基]-6,13,19-三异丁基-7,10,11,16,16,17,26,29,32-九甲基-3-[(1S)-1-甲基丙基]-1,4,7,11,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,

12,15,18,21,24,27,30,33-十一酮,

(906) (7S,10S,16S,25S,28S,32S,35S) -7-[(2-氯苯基) 甲基]-10-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16-(环己基甲基)-35-异丙基-8,14,17,20,23,28,29,33,36-九甲基-25-[(1S) -1-甲基丙基]-32-(吡咯烷-1-羰基)-5,8,11,14,17,20,23,26,29,33,36-十一氮杂螺[3.33]三十七烷-6,9,12,15,18,21,24,27,30,34,37-十一酮,

(907) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基) 苄基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(908) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(909) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基) 苄基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(910) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟-1-哌啶基) 乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(911) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-(环丁基甲基)-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(912) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S) -1-甲基丙基]-22-(间甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(913) (6S,9S,13R,16S,19S,22S,25S,31S,34S) -19-苄基-31-[(4-氯苯基) 甲基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-九甲基-6-[(1S) -1-甲基丙基]-25-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(914) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-36-(4,4-二氟-1-哌啶基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-

18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(915) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(916) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(4-氯苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(917) (3S,9S,18S,21S,25S,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(918) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(919) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-(3-吡啶基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(920) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(921) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(922) (6S,9R,13S,16S,25S,31S,33aS,37aS,38aS)-16-((S)-仲丁基)-25-(4-氯苄基)-6,13-二异丁基-3,3,5,9,12,18,21,24,27-九甲基-31-(4-(三氟甲基)苯乙基)二十八氢-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-1,4,7,11,14,17,20,23,26,29,32(8H)-十一酮,

(923) (8S,11S,17S,26S,29S,36S)-17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙

基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(924) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(925) (3S,9S,18S,21S,25S,28S,31S,34S,36R)-3-[(3-氯苯基)甲基]-9-[(4-氯苯基)甲基]-36-乙氧基-28-异丁基-31-(异戊氧基甲基)-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(926) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(927) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,4,7,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(928) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(929) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(930) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(931) (6S,9S,13S,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(932) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苄基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(933) (5S,8S,11S,15R,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-21-异丙基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(934) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-6,18-双[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(935) 2-[[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(936) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-9-环丁基-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(937) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-18-环己基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(938) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(939) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苄基]乙基]-17-(环己基甲基)-29-异丁基-36-异丙基-8,9,15,18,21,24,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(940) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苄基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(941) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-28-环

己基-9-(环己基甲基)-21-异丁基-18-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(942) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(943) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(944) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(945) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(3-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(946) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(947) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(948) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(949) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(950) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(5-氟-3-吡啶基)甲氧基甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(951) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(952) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(953) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(4-氯苯乙基)-36'-(环己基甲基)-12'-异丁基-19'-异丙基-7',13',17',20',34',37'-六甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(954) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(3-氯苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(955) N-叔丁基-2-[[(3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-基]甲氧基]乙酰胺,

(956) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-27-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(957) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(958) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(959) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(960) (8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-6,12,16,19,33,36-六甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(961) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(962) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(963) (8S,11S,17S,26S,29S,33S,36S) -8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(964) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,38'S,40a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(环己基甲基)-19'-异丙基-7',12',13',17',20',39'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

(965) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(966) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环戊基-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(967) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)

苯基]乙基]-9,30-二异丁基-3-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(968) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(969) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(970) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16,21-二异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(971) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(972) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-9,34-二异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(973) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(974) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(975) 3-[[(3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

(976) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲

基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-29-(4-甲基苯乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(977) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(978) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,9,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(979) (3S,9S,18S,21S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(980) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环丙基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(981) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(982) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(983) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,21-双(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(984) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(985) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]

螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(986) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,18-双(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(987) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(988) (7S,10S,14S,17S,22aS,28S,34S,36aS,40aS) -7-((S)-仲丁基)-28-(3-氯-4-(三氟甲基)苯乙基)-34-(环己基甲基)-10-异丁基-17-异丙基-11,15,18,32,35-五甲基-14-(哌啶-1-羰基)二十四氢-27H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-20,1'-环戊烷]-6,9,12,16,19,22,27,30,33,36,40(2H,13H,21H,36aH)-十一酮,

(989) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(990) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(2-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(991) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(992) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-25-(异戊氧基甲基)-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(993) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,22,23,29,32-十二甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(994) (6S,9S,13R,16S,19S,22S,25S,31S,34S) -19-苄基-31-[(4-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-

九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(995) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(996) (1R,4S,7S,16S,22S,25S,31S,34R)-16-[(4-氯苯基)甲基]-25,31-二异丁基-4-异丙基-3,9,12,15,18,24,30-七甲基-7-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]螺[3,6,9,12,15,18,21,24,27,30,33-十一氮杂双环[32.3.0]三十七烷-28,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(997) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-6-[(4-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(998) N-(叔丁基)-2-(((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)甲氧基)乙酰胺,

(999) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1000) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1001) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1002) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1003) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1004) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1005) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-丙基-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1006) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1007) (3S,9S,18S,25S,28S,34S) -25-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

(1008) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1009) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1010) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-21-异丙基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(1011) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(吡啶-3-基甲

基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1012) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1013) (3S,9S,18S,21S,25R,28S,34S)-9-[(4-氯苯基) 甲基]-21,28-二异丁基-7,10,13,16,22,25,29,31,31-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1014) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基) 甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1015) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-苄基-25-[(3-碘苯基) 甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1016) (5S,8S,11S,15S,18S,23aS,25S,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1017) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1018) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1019) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1020) (5S,8S,12R,15S,20aS,26S,32S,37aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲

基) 苯乙基) -32- (环己基甲基) -8- 异丁基-15- 异丙基-9,12,16,30,33,36-六甲基二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37 (2H,11H,19H) -十一酮,

(1021) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(五氟- λ^6 -硫烷基) 苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1022) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33,36-十二酮,

(1023) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-6-乙基-11-异丁基-5,12,15,19,33,36-六甲基-35-(4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1024) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基) 苯乙基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1025) (8R,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1026) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-21-异丁基-9-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1027) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1029) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,

17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1030) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1031) (3S,9S,18S,21S,25R,28S,31S,34S) -31-苄基-9-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1032) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,25-二异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1033) (3S,9S,18S,21S,25R,28S,34S) -13-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1034) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,21,21,22,33,36-十一甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(1035) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-6-[(2-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1036) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1037) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1038) (3S,9S,18S,21S,25R,28S,31R,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七

烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1039) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1040) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1041) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1042) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1043) (3S,9S,12S,18S,27S,30S,34S)-12-苄基-9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1044) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-6-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1045) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-乙基-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1046) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1047) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-18-环戊基-16-乙基-11-异丁基-5,6,12,19,33,36-六甲基-

15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1048) (3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1049) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1050) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-12'-异丁基-19'-异丙基-7',13',16',20',34',37'-六甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1051) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1052) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[3-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1053) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-25-苄基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1054) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-9-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1055) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(对甲苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1056) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-

氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1057) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1058) (6S,9S,13S,16S,19S,22S,25S,31S,34S)-19-苄基-22-丁基-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-4,10,14,19,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1059) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-15-甲酰胺,

(1060) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1061) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-氯苯基)甲基]-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1062) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1063) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1064) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环戊基-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-

1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1065) (3S,6R,9S,18S,21S,25R,28S,34S) -9-[(4-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1066) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1067) (3S,9S,12S,18S,27S,30S,34R) -18-[(1R) -1-苄氧基乙基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S) -1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1068) (3S,9S,18S,21S,25R,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,31-二异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1069) (8S,11S,17S,26S,29S,33R,36S) -17-[(4-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-8-异丁基-29,36-二异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S) -1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1070) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1071) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1072) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-[(1R) -1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1073) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙

基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1074) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1075) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(3,4-二氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1076) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1077) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(2-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1078) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3,6-二异丙基-1,4,10,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1079) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1080) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1081) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1082) (6S,9S,13R,16S,21aS,27S,33S,35aS,39aS)-6-((S)-仲丁基)-27-(3-氯-4-(三氟甲基)苯乙基)-33-(环己基甲基)-9-异丁基-16-异丙基-10,13,17,31,34-五甲基二

十二氢-1H,26H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-19,1'-环戊烷]-5,8,11,15,18,21,26,29,32,35,39(12H,20H,35aH,39aH)-十一酮,

(1083) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(3-甲基苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1084) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-3-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1085) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1086) (3S,9S,18S,21S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1087) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-8-[(5-甲基-3-吡啶基)甲基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1088) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1089) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33,36-十二酮,

(1090) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1091) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,

4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1092) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-(5,5-二氟戊基)-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1093) (3S,9S,18S,21S,25S,28S,34R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-硫杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1094) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1095) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-6,6,7,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂双环[32.4.0]三十八烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1096) (9'S,12'S,16'S,19'S,24a'S,26'R,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环己基-36'-(环己基甲基)-12'-异丁基-7',13',17',20',34',37'-六甲基-26'-苄基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1097) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-34'-异丁基-10',13',16',19',31',35'-六甲基-6'-(4-(三氟甲基)苯乙基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

(1098) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1099) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1100) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-

[(2-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1101) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1102) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙氧基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1103) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1104) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(2,2,2-三氟乙基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1105) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1106) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1107) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1108) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-19-(甲氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十

一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1109) (3S,9S,18S,21S,25S,28S,31S,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1110) (4R,7S,10S,13S,16S,22S,31S,34S) -10-苄基-22-[4-氯苯基]甲基]-13-异丁基-7-异丙基-4,8,11,14,20,23,26,29-八甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

(1111) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1112) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1113) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1114) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环丁基甲基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1115) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1116) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1117) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并

[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1118) (7'S,16'S,19'S,23'S,26'S,31a'S,37'S,39a'R)-16'-((S)-仲丁基)-37'-(3-氯-4-(三氟甲基)苯乙基)-7'-(环己基甲基)-26'-异丙基-8',11',14',19',20',24',27'-七甲基-23'-(哌啶-1-羰基)二十四氢-2'H,6'H-螺[环戊烷-1,29'-吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',18',21',25',28',31',36',39'(22'H,30'H)-十一酮,

(1119) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-9-(异戊氧基甲基)-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1120) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-N,N,5,6,12,16,19,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1121) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1122) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((2-羟基-2-甲基丙氧基)甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1123) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(5,5-二氟戊基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1124) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1125) (8S,11S,17S,26S,29S,33S,36S)-8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1126) (1R,4S,7S,16S,22S,25S,31S,34R) -16-[(4-氯苯基)甲基]-25,31-二异丁基-4-异丙基-9,12,15,18,24,30-六甲基-7-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]螺[3,6,9,12,15,18,21,24,27,30,33-十一氮杂双环[32.4.0]三十八烷-28,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1127) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-9-[[2-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1128) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1129) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-22-[[2-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1130) (3S,9S,18S,21S,25S,28S,31R,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1131) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-22-丙基三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

(1132) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1133) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-27-环己基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1134) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-(3-甲基丁-2-烯基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1135) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯

基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1136) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(3,3,4,4-四氟吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1137) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1138) (3S,9S,18S,21S,25S,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-31-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1139) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1140) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1141) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1142) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1143) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-

((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1144) (3S,9S,18S,21S,25S,28S,34S,36R)-21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1145) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1146) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1148) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-N,N,5,6,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1149) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1150) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-(3,3-二甲基吡咯烷-1-羰基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1151) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1152) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-36-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-

甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1153) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1154) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1155) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(2-溴-5-碘-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1156) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-25-[(3-氯-5-碘-苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1157) (3S,9S,18S,21S,25S,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-31-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1158) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1159) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1160) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1161) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(4-甲基哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1162) (3S,9S,18S,21S,25S,28S,34S,36R)-9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1163) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1164) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1165) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1166) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1167) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1168) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(3,3,4,4-四氟吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1169) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-18-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1170) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲

基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1171) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1172) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-25-(4-甲基哌啶-1-羰基)-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1173) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1174) (5S,8S,11S,15S,18S,21R,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,33,36-八甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(1175) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1176) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1177) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-2-氟-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1178) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-

15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1179) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1180) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(噁唑烷-3-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1181) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(4-(氧杂环丁烷-3-基)哌嗪-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1182) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1183) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1184) (3S,9S,12S,18S,27S,30S,34S)-18-苄基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1185) (6'S,12'S,21'S,24'S,27a'R,33'S,38a'S)-21'-((S)-仲丁基)-6'- (3-氯-4-(三氟甲基)苯乙基)-33'-环己基-12'- (环己基甲基)-24'-异丁基-10',13',16',19',25',34'-六甲基二十四氢-5'H-螺[环戊烷-1,36'-二吡咯并[1,2-e1:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',32',35',38'(27'H,37'H)-十一酮,

(1186) (3S,9S,12S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,12,13,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1187) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-25-[(2,6-二氟苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1188) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(噁唑烷-3-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1189) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-22-乙基-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1190) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1191) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-[4-(氧杂环丁烷-3-基)哌嗪-1-羰基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1192) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1193) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1194) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1195) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-2-甲基-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮

杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1196) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1197) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1198) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1199) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1200) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1201) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1202) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,12,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1203) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7-乙基-21-异丁基-10,13,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1204) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

21-环丁基-28-环己基-9-(环己基甲基)-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1205) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-33-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,5,6,12,16,19,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1206) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1207) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3,3,4,4-四氟吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1208) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1209) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1210) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1211) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,33,36-八甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(1212) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-2-氯-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-

6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1213) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1214) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1215) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1216) (3S,9S,12S,18S,27S,30S,34S)-12-[(5-溴-2-噻吩基)甲基]-9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1217) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1218) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-33-乙基-11-异丁基-5,6,12,15,19,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1219) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-18-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1220) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,

17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1221) (5S,8S,11S,15R,18S,21S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11-异丁基-5,6,12,15,19,21,33,36-八甲基-35- (4-甲基苄基) 二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(1222) (5S,8S,11S,15R,18S,21R,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11-异丁基-5,6,12,15,19,21,33,36-八甲基-35- (4-甲基苄基) 二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(1223) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18,35-二环戊基-11-异戊基-5,12,16,19,33,36-六甲基-15- (吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1224) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-3-[2-[3,5-二氟-4- (三氟甲基) 苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-21-丙基-9- (对甲苯基甲基) -25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1225) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11-异丁基-5,6,8,12,15,19,33,36-八甲基-35- (4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1226) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-9-乙基-25-[(3-氟-5-碘-苯基) 甲基]-16-异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1227) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -13-乙基-21-异丁基-7,10,16,22,26,29-六甲基-18-[(1S) -1-甲基丙基]-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1228) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9- (环己基甲基) -3-[2-[3,5-二氟-4- (三氟甲基) 苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25- (吡咯烷-1-羰基) -21- (2,2,2-三氟乙基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1229) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -25- (3,3,4,4,5,5-六氟哌啶-1-羰基) -21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1230) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31-[(4-氟苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1231) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-25-乙氧基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1232) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1233) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1234) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1235) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1236) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1237) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1238) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-15-(1,1-二氧硫代吗啉-4-羰基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1239) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,18,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1240) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-3-吡啶基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苄基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1241) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1242) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1243) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1244) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1245) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1246) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苄基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]

三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1247) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(噁唑烷-3-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1248) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1249) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-9-乙基-25-[(2-氟-3-碘-苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1250) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1251) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1252) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-12-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,16,19,33,36-七甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1253) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1254) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1255) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-16-乙基-21-异丁基-7,10,13,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1256) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-25-[(2,3-二氟苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1257) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1258) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1259) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1260) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1261) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1262) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1263) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-(1,1-二氧化-1,4-噻嗪烷-4-羰基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1264) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18-环戊基-25,25-二氟-29- (3-氟-4- (三氟甲基) 苯乙基) -11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1265) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-9- (环己基甲基) -25- (3,3,4,4,5,5-六氟哌啶-1-羰基) -21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1266) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15- (吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1267) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-21-丙基-25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1268) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-25-[(2,5-二氟苯基) 甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1269) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11- (环戊基甲基) -N,N,5,12,16,19,33,36-八甲基-35- (4-甲基苄基) -4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1270) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-9- (环己基甲基) -28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1271) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-3-[2-[3,5-二氟-4- (三氟甲基) 苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25- (吡咯烷-1-羰基) -21- (2,2,2-三氟乙基) -9-[[4- (三氟甲基) 苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1272) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15- (吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,

4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1273) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-25-(3,3-二甲基吡咯烷-1-羰基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1274) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1275) (3S,9S,18S,21S,25S,28S,34S) -21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1276) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-33-乙基-11-异丁基-18-异丙基-5,6,12,16,19,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1277) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1278) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1279) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-25-(1,1-二氧化-1,4-噻嗪烷-4-羰基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1280) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(3,3-二甲基吡咯烷-1-羰基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1281) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,

32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1282) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-N,N,5,16,19,33,36-七甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1283) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1284) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-[4-(氧杂环丁烷-3-基)哌嗪-1-羰基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1285) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1286) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(2-氟-5-碘-苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1287) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-N,N,5,16,19,33,36-七甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1288) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1289) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1290) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-

二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1291) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(4-甲基哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1292) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1293) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1294) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(4-(氧杂环丁烷-3-基)哌嗪-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1295) (3S,9S,18S,21S,25S,28S,34S)-21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1296) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1297) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1298) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环

[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1299) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1300) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,33,35,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1301) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1302) (3S,9S,18S,21S,25S,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-31-乙基-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1303) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1304) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[3-溴-2-氟-苯基]甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1305) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(4-氟苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1306) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1307) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-31-

(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1308) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1309) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1310) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1311) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1312) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1313) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31-苄基-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1314) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1315) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1316) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1317) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1318) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(5-氯-2-噻吩基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1319) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1320) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1321) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1322) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1323) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(3,3-二甲基吡咯烷-1-羰基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1324) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲

基)-18-环戊基-12-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1325) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1326) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1327) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1328) (3S,6S,9S,13R,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1329) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(噁唑烷-3-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1330) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1331) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,12,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1332) (5S,8S,11S,14aR,20S,25aS,31S,37S,39aS)-8-((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-11-异丁基-20-异丙基-5,6,12,21,35,38-六甲基

二十四氢-2H,4H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-e1:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-23,1'-环戊烷]-4,7,10,13,19,22,25,30,33,36,39(14H,24H)-十一酮,

(1333) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1334) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1335) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1336) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1337) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1338) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1339) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1340) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二

烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1341) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1342) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1343) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1344) (6S,9S,13S,16S,22S,25S,31S,34S)-31-[4-氟苯基]甲基]-25-[3-碘苯基]甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1345) (3S,9S,15S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,15,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1346) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1347) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(4-甲基哌啶-1-羰基)-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1348) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1349) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-15-(1,1-二氧硫代吗啉-4-羰基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1350) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1351) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1352) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(2-氯-5-碘-苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1353) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1354) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1355) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1356) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1357) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十

一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1358) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-9-乙基-25-[(5-碘-2-甲基-苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1359) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1360) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1361) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1362) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1363) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1364) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1365) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-N,N,5,6,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1366) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1367) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1368) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1369) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1370) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1371) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1372) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-溴-5-氟-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1373) (3S,9S,18S,21S,25R,28S,31S,34S,36S) -31-苄基-9-[(4-氯苯基)甲基]-36-羟基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1374) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1375) (3S,9S,18S,21S,25R,28S,31S,34S,36R) -31-苄基-9-[(4-氯苯基) 甲基]-36-羟基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1376) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1377) (6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S) -1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1378) (6S,9S,13R,16S,22S,25S,28R,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S) -1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1379) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S) -1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1380) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环己基甲基)-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1381) (3S,9S,12S,15R,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S) -1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1382) (6S,9S,13R,16S,22S,25S,28R,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S) -1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1383) (6S,9S,13R,16S,22S,25S,28R,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S) -1-甲基丙基]-31-[[4-(三氟甲基) 苯基] 甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1384) (3S,9S,12S,15R,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S) -1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,

14,17,20,23,26,29,32-十一酮,

(1385) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S)-1-甲基丙基]-18-[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1386) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1387) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1388) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1389) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1390) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1391) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1392) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1393) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1394) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-

31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1395) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1396) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1397) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1398) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1399) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1400) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1401) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1402) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1403) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1404) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-溴苯基)甲基]-9-丁基-18-[(4-氯苯

基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1405) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-(环戊基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1406) (3S,9S,12S,18S,27S,30S,34R)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-9-丙-2-炔基-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1407) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1408) (6S,9S,13R,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,13,14,19,19,20,29,32-九甲基-22-(3-甲基丁-2-烯基)-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1409) (3S,9S,12S,18S,27S,30S,34S)-3-苄基-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1410) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-3-丙基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1411) (1S,7S,10S,14S,17S,26S,32S)-32-[(3-碘苯基)甲基]-7,14-二异丁基-3,4,4,9,13,19,22,25,28-九甲基-17-[(1S)-1-甲基丙基]-10-(哌啶-1-羰基)-3,6,9,13,16,19,22,25,28,31,34-十一氮杂双环[24.8.6]四十烷-2,5,8,12,15,18,21,24,27,30,33-十一酮,

(1412) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-12-[(3-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1413) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-31-(环丁基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1414) (6S,9S,13S,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1415) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-溴苯基)甲基]-22-丁基-31-[(4-氯苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1416) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1417) (6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-9-己基-25-[(3-碘苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1418) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-9-(3-甲基丁-2-烯基)-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1419) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(3-甲基丁-2-烯基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1420) (6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1421) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-9-(2-甲基烯丙基)-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1422) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-3-(环丁基甲基)-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1423) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-(环戊基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,

20,23,26,29,32-十一酮,

(1424) (2aS,5S,11S,14S,20S,23S,30aS,33S,36S)-33-((S)-仲丁基)-14-丁基-5-(环戊基甲基)-11-(3-碘苄基)-20-异丁基-4,7,16,17,17,22,35,36-八甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

(1425) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1426) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1427) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1428) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1429) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1430) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-3-(2-苯基乙基)-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1431) (3S,9S,12S,18S,27S,30S,34S)-9-烯丙基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1432) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-31-(环戊基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1433) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-30-异丁基-3-异戊基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-

18-[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1434) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1435) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-乙基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1436) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1437) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-22-(异戊氧基甲基)-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1438) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-22-乙基-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1439) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-环戊基-8-乙基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1440) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-环戊基-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1441) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-乙基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1442) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1443) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-22-(异戊氧基甲基)-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1444) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-22-(羟甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1445) (3S,9S,18S,21S,25S,28S,34R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-氧杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1446) (8R,11S,17S,26S,29S,33S,36S) -8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-环戊基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1447) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-烯丙基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1448) (8R,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(羟甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1449) (8S,11S,17S,26S,29S,33S,36S) -8-烯丙基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1450) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,10,16,19,22,25,31-八甲基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1451) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(5,5-二氟戊基)-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1452) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,28-二异丁基-18-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,

16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1453) (3S,9S,12S,18S,27S,30S,34S) -27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31-九甲基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1454) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1455) (3S,9S,12S,18S,27S,30S,34S) -18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1456) (3S,9S,12S,18S,27S,30S,34S) -18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1457) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1458) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1459) (3S,9S,15S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-15-乙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1460) (3S,9S,12S,18S,27S,30S,34R) -27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1461) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1462) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -18-环戊基-6,11,12,15,19,33,36-七甲基-35- (4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1463) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -18-环戊基-6,11,12,15,19,33,36-七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1464) (8S,11S,17S,26S,29S,33R,36S) -11- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -24-乙基-8- [(2-羟基-2-甲基-丙氧基) 甲基] -29,36-二异丁基-17- (异戊氧基甲基) -9,15,18,21,30,33,37-七甲基-26- [(1S) -1-甲基丙基] -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1465) (3S,6R,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18- [(1S) -1-甲基丙基] -9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1466) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -28-环戊基-7,10,13,16,21,22,25,29-八甲基-18- [(1S) -1-甲基丙基] -9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1467) N-叔丁基-2- [(3S,9S,12S,18S,27S,30S,34R) -12- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -3,30-二异丁基-18- (异戊氧基甲基) -4,6,6,10,16,19,22,25,31,34-十甲基-27- [(1S) -1-甲基丙基] -2,5,8,11,14,17,20,23,26,29,32-十一氧代-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基] 甲氧基] 乙酰胺,

(1468) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -18-环戊基-11-异丁基-6,12,15,19,32,33,36-七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1469) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -28-乙基-3- [2- [3-氟-4- (三氟甲基) 苄基] 乙基] -21-异丁基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1470) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R) -15'- ((S) -仲丁基) -36'- (3-氯-4- (三氟甲基) 苄基) -25'-环戊基-7',10',13',18',19',22',26'-七甲基-6'- (4- (三氟甲基) 苄基) 二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',

30',35',38' (21'H,29'H) - 十一酮,

(1471) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1472) (6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-4-乙基-22-[(2-羟基-2-甲基-丙氧基)甲基]-9,16-二异丁基-31-(异戊氧基甲基)-10,13,17,19,19,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1473) (3S,9S,12S,18S,27S,30S,34R) -25-丁基-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,16,19,22,31,34-八甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1474) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1475) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1476) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-25-乙基-30-[(2-羟基-2-甲基-丙氧基)甲基]-3,9-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1477) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1478) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1479) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-环戊基-6,11,12,15,19,38-六甲基二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,

39 (14H, 22H) - 十一酮,

(1480) N-叔丁基-2-[[(3S, 9S, 12S, 18S, 27S, 30S, 34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]乙酰胺,

(1481) (8S, 11S, 15R, 18S, 23aS, 29S, 35S, 37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-6,11,12,15,19,33,36-七甲基二十二氢-2H, 4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H, 22H) - 十一酮,

(1482) (5S, 8S, 11S, 15R, 18S, 23aS, 29S, 32R, 35S, 37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,32,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H, 4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H, 22H) - 十一酮,

(1483) (3S, 9S, 18S, 21S, 25R, 28S, 34S, 36R) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1484) (3S, 9S, 12S, 18S, 27S, 30S, 34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,25,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1485) (3S, 9S, 18S, 21S, 25R, 28S, 34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1486) (3S, 9S, 18S, 21S, 25R, 28S, 34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1487) (6'S, 15'S, 18'S, 22'R, 25'S, 30a'S, 36'S, 38a'R) -15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-25'-环戊基-18'-异丁基-7', 10', 13', 19', 22', 26'-六甲基-6'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5', 8', 11', 14', 17', 20', 24', 27', 30', 35', 38' (21'H, 29'H) - 十一酮,

(1488) (8S, 11S, 15R, 18S, 23aS, 29S, 31aR, 37S, 39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,38-五甲基-37-(4-甲基苄基)二十四氢-2H, 4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,

19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(1489) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1490) (3S,9S,18S,21S,25R,28S,34S)-18-丁基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1491) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1492) N-叔丁基-2-[[(8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-29,36-二异丁基-17-(异戊氧基甲基)-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲氧基]乙酰胺,

(1493) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-18-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1494) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,38-六甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(1495) N-叔丁基-2-[[(2S,5S,14S,20S,23S,29S,32R)-20-[2-[3-氯-4-(三氟甲基)苯基]乙基]-7-乙基-23,29-二异丁基-14-(异戊氧基甲基)-1,10,13,16,22,26,26,28,32-九甲基-5-[(1S)-1-甲基丙基]-3,6,9,12,15,18,21,24,27,30,34-十一氧代-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2-基]甲氧基]乙酰胺,

(1496) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1497) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(4-(三氟甲

基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1498) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1499) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1500) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1501) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1502) N-叔丁基-2-[(3S,9S,12S,18S,27S,30S,34S)-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]乙酰胺,

(1503) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1504) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,32,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1505) (3S,9S,12S,18S,27S,30S,34R)-25-丁基-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-30-异丁基-18-(异戊氧基甲基)-3-异丙基-4,6,6,10,16,19,22,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1506) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环

己基甲基)-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1507) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1508) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1509) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-36,36-二氟-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1510) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1511) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-27-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1512) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1513) N-叔丁基-2-[[(6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-4-乙基-9,16-二异丁基-31-(异戊氧基甲基)-10,13,17,19,19,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-22-基]甲氧基]乙酰胺,

(1514) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1515) (3S,9S,18S,21S,25R,28S,34S) -9- (5,5-二氟戊基) -3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1516) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,19,22,25,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1517) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,32,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1518) (3S,9S,18S,21S,25R,28S,34S) -28-丁基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1519) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-25-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1520) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1521) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1522) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,38-六甲基-37-(4-(三氟甲基)苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(1523) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1524) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1525) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-25'-环戊基-7',10',13',18',19',22',26'-七甲基-6'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

(1526) (3S,9S,12S,18S,27S,30S,34R)-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1527) (3S,9S,18S,21S,25R,28S,34S)-18-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1528) (3S,9S,12S,18S,27S,30S,34S)-25-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1529) (3S,9S,18S,21S,25R,28S,34S,36S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1530) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1531) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-6,12,15,19,32,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1532) (3S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1533) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-丙-2-炔基-螺[1,4,7,

10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1534) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1535) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1536) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1537) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1538) N-叔丁基-2-[[(2S,5S,14S,20S,23S,29S,32S) -2,23,29-三异丁基-14-(异戊氧基甲基)-1,7,10,13,16,22,26,26,28-九甲基-5-[(1S)-1-甲基丙基]-3,6,9,12,15,18,21,24,27,30,34-十一氧代-20-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-32-基]甲氧基]乙酰胺,

(1539) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1540) (5S,8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,38-七甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

(1541) (3S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1542) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1543) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-环戊基-7',10',13',18',19',22',26'-七甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

(1544) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1545) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.2.0]三十六烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1546) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(1547) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1548) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1549) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1550) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1551) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-

1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1552) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环戊基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1553) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-环丙基-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1554) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1555) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[3-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1556) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(3-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1557) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(3-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1558) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,11-二异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1559) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-5-苯乙基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1560) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-5-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1561) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -5-苄基-8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1562) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-5,6,11,12,16,19,33,36-八甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1563) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18- [(1S) -1-甲基丙基] -9- [[4- (三氟甲氧基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1564) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-5,6,12,15,19,33,36-七甲基-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1565) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] -9- [[4- (三氟甲氧基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1566) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -5- (环戊基甲基) -18-异丙基-6,11,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1567) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18- [(1S) -1-甲基丙基] -9- [[2- (三氟甲基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1568) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -11-丁基-29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-5,6,12,15,19,33,36-七甲基二

十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1569) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1570) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1571) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1572) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1573) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1574) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1575) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1576) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1577) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5-异戊基-18-异丙基-6,12,16,19,33,36-

六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1578) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1579) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[2-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1580) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1581) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1582) (3S,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1583) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1584) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(邻甲基苯基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1585) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1586) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-5-环丙基-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1587) (3S,9S,18S,21S,25R,28S,34S)-9-[(3-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1588) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1589) (3S,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1590) (3S,9S,18S,21S,25R,28S,34S)-9-[(4-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1591) (3S,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1592) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,18-二异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1593) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1594) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1595) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-(环己基甲基)-5-异戊基-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1596) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1597) (3S,9S,18S,21S,25R,28S,34S)-9-[3-溴苯基]甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1598) (3S,9S,18S,21S,25S,28S,34S)-9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1599) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1600) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-环己基-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1601) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)-5-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1602) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1603) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-(环丁基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,

7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1604) (3S,9S,18S,21S,25R,28S,34S) - 9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1605) (3S,9S,18S,21S,25R,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1606) (3S,9S,18S,21S,25R,28S,34S) - 9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1607) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-乙基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1608) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(2-苯基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1609) (3S,9S,18S,21S,25S,28S,34S) - 9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1610) (3S,9S,18S,21S,25R,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(3-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1611) (3S,9S,18S,21S,25S,28S,34S) - 9-[(3-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1612) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1613) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1614) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1615) (3S,9S,18S,21S,25R,28S,34S) -9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1616) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-11-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1617) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1618) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环戊基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1619) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,11-二异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1620) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1621) (3S,9S,18S,21S,25R,28S,34S) -9-[(3-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1622) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -5-环己基-35- (环己基甲基) -18-异丙基-6,11,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1623) (3S,9S,18S,21S,25R,28S,34S) -9- [(3-氯苯基) 甲基] -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1624) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-5-苯乙基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1625) (3S,9S,18S,21S,25R,28S,34S) -9- [(4-溴苯基) 甲基] -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1626) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -9- (间甲苯基甲基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1627) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18- [(1S) -1-甲基丙基] -9- (2-苯基乙基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1628) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -5-苄基-8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1629) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -9- [[4- (三氟甲基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1630) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -9- [[4- (三氟甲氧基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1631) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[4-氟苯基]甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1632) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1633) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1634) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(2-苯基乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1635) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1636) (3S,9S,18S,21S,25S,28S,34S) -9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1637) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1638) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-乙基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1639) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1640) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异

丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1641) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1642) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1643) (3S,9S,18S,21S,25S,28S,34S)-9-[(3-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1644) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1645) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1646) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1647) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(3,3-二氟丙基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1648) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1649) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1650) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18,21-二异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1651) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异戊基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1652) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,21-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1653) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1654) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1655) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1656) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1657) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11,18-二异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,

23,28,31,34,37 (14H,22H) - 十一酮,

(1658) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1659) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1660) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(3,3-二氟丙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1661) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) - 8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1662) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1663) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1664) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1665) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

(1666) (3S,9S,18S,21S,25S,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-

(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1667) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

(1668) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1669) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1670) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1671) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18,21-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1672) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1673) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1674) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,35,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1675) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环己基-35- (环己基甲基) -11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1676) (11S,17S,26S,29S,33S,36S) -9-苄基-11-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-17- (环己基甲基) -36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S) -1-甲基丙基]-33- (哌啶-1-羰基) -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1677) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35-环丙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1678) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-乙基-11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1679) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15- (吡咯烷-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1680) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -21-异丁基-7,10,13,16,22,26,29,31,31-九甲基-18-[(1S) -1-甲基丙基]-25- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1681) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-21-异丁基-7,9,10,13,16,22,26,29-八甲基-18-[(1S) -1-甲基丙基]-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1682) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基]-9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1683) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -35-苄基-8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]

十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H, 22H) -十一酮,

(1684) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,35-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1685) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1686) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-9,18-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1687) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(羟甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1688) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1689) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1690) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环丙氧基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1691) (3S,6R,9S,18S,21S,25R,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1692) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-戊基-25-(哌啶-1-

羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1693) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1694) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1695) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丙烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1696) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1697) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-8-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1698) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1699) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1700) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(3,3-二氟丙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1701) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-

1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1702) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,]0,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1703) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1704) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1705) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-11-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1706) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1707) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-18-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1708) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环己烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1709) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-35-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,

16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1710) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1711) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1712) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1713) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(羟甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1714) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,15,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1715) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(吡咯烷-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

(1716) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1717) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,

37 (14H, 22H) - 十一酮,

(1718) (8S, 11S, 17S, 26S, 29S, 33S, 36S) - 11- [2- [3- 氯- 4- (三氟甲基) 苯基] 乙基] - 36- 环己基- 17- (环己基甲基) - 9, 15, 18, 21, 24, 29, 30, 34, 37- 九甲基- 26- [(1S) - 1- 甲基丙基] - 33- (吗啉- 4- 羰基) - 8- (3- 吡啶基甲基) - 6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37- 十一氮杂螺 [4.33] 三十八烷- 7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38- 十一酮,

(1719) (3S, 9S, 18S, 21S, 25S, 28S, 34S) - 3- [2- [3- 氯- 4- (三氟甲基) 苯基] 乙基] - 9- (环己基甲基) - 21- 异丁基- 7, 10, 13, 16, 22, 26, 29- 七甲基- 18- [(1S) - 1- 甲基丙基] - 28- 戊基- 25- (哌啶- 1- 羰基) 螺 [1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32- 十一氮杂双环 [32.3.0] 三十七烷- 31, 1'- 环戊烷] - 2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33- 十一酮,

(1720) (3S, 9S, 18S, 21S, 25S, 28S, 34S) - 3- [2- [3- 氯- 4- (三氟甲基) 苯基] 乙基] - 28- 环己基- 9- (环己基甲基) - 7, 10, 13, 16, 21, 22, 26, 29- 八甲基- 18- [(1S) - 1- 甲基丙基] - 25- (吡咯烷- 1- 羰基) 螺 [1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32- 十一氮杂双环 [32.3.0] 三十七烷- 31, 1'- 环戊烷] - 2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33- 十一酮,

(1721) (5S, 8S, 11S, 15S, 18S, 23aS, 29S, 35S, 37aS) - 8- ((S) - 仲丁基) - 29- (3- 氯- 4- (三氟甲基) 苯乙基) - 35- (羟甲基) - 11- 异丁基- 18- 异丙基- 5, 6, 12, 16, 19, 33, 36- 七甲基- 15- (哌啶- 1- 羰基) 二十二氢- 2H, 4H- 螺 [氮杂环丁二烯并 [2, 1-u] 吡咯并 [2, 1-i] [1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31] 十一氮杂环三十四碳十七烯- 21, 1'- 环戊烷] - 4, 7, 10, 13, 17, 20, 23, 28, 31, 34, 37 (14H, 22H) - 十一酮,

(1722) (5S, 8S, 11S, 15S, 18S, 23aS, 29S, 35S, 37aS) - 8, 18- 二 ((S) - 仲丁基) - 29- (3- 氯- 4- (三氟甲基) 苯乙基) - 35- (环己基甲基) - 11- 异丁基- 5, 6, 12, 16, 19, 33, 36- 七甲基- 15- (哌啶- 1- 羰基) 二十二氢- 2H, 4H- 螺 [氮杂环丁二烯并 [2, 1-u] 吡咯并 [2, 1-i] [1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31] 十一氮杂环三十四碳十七烯- 21, 1'- 环戊烷] - 4, 7, 10, 13, 17, 20, 23, 28, 31, 34, 37 (14H, 22H) - 十一酮,

(1723) (3S, 9S, 18S, 21S, 25S, 28S, 34S) - 18- 丁基- 3- [2- [3- 氯- 4- (三氟甲基) 苯基] 乙基] - 28- 环己基- 9- (环己基甲基) - 21- 异丁基- 7, 10, 13, 16, 22, 26, 29- 七甲基- 25- (哌啶- 1- 羰基) 螺 [1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32- 十一氮杂双环 [32.3.0] 三十七烷- 31, 1'- 环戊烷] - 2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33- 十一酮,

(1724) (5S, 8S, 11S, 15S, 18S, 23aS, 29S, 32R, 35S, 37aS) - 35- 苄基- 8- ((S) - 仲丁基) - 29- (3- 氯- 4- (三氟甲基) 苯乙基) - 18- 异丙基- 5, 6, 11, 12, 16, 19, 32, 33, 36- 九甲基- 15- (哌啶- 1- 羰基) 二十二氢- 2H, 4H- 螺 [氮杂环丁二烯并 [2, 1-u] 吡咯并 [2, 1-i] [1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31] 十一氮杂环三十四碳十七烯- 21, 1'- 环戊烷] - 4, 7, 10, 13, 17, 20, 23, 28, 31, 34, 37 (14H, 22H) - 十一酮,

(1725) (9'S, 12'S, 16'S, 19'S, 24a'S, 30'S, 32a'R, 38'S, 40a'S) - 9' - ((S) - 仲丁基) - 30' - (3- 氯- 4- (三氟甲基) 苯乙基) - 38' - (4- 氟苄基) - 19' - 异丙基- 7', 12', 13', 17', 20', 39' - 六甲基- 16' - (哌啶- 1- 羰基) 二十六氢- 5'H- 螺 [环戊烷- 1, 22' - 三吡咯并 [2, 1-i: 2', 1'- o: 2'', 1''- u] [1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31] 十一氮杂环三十四碳十七烯] - 5', 8', 11', 14', 18', 21', 24', 29', 32', 37', 40' (15'H, 23'H) - 十一酮,

(1726) (5S, 8S, 11S, 15S, 18S, 23aS, 29S, 35S, 37aS) - 8- ((S) - 仲丁基) - 29- (3- 氯- 4- (三氟甲基) 苯乙基) - 18- 环己基- 35- (环己基甲基) - 11- 异丁基- 5, 6, 12, 16, 19, 33, 36- 七甲基-

15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1727) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1728) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1729) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1730) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S)-38'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

(1731) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1732) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1733) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1734) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,

4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1735) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1736) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1737) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18,35-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1738) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丙氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1739) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环戊基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1740) (3S,9S,18S,21S,25S,28S,34S) -21-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1741) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1742) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',33',34',37'-八甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

(1743) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1744) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1745) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1746) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁基甲基)-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1747) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1748) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1749) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1750) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1751) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,21,33,36-九甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(1752) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三

氟甲基)苯乙基)-35-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1753) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1754) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8,11-二异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1755) (3S,6R,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1756) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1757) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1758) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1759) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁基甲基)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1760) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,

16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1761) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1762) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1763) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1764) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙氧基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1765) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1766) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1767) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11,18-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1768) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(羟甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1769) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (3,3-二氟丙基) -11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1770) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21-乙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1771) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -28- (丙氧基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1772) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35- (4-甲基苄基) -15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1773) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-5,6,11,12,15,16,19,32,33,36-十甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1774) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -21-异丁基-7,10,13,16,22,25,29-七甲基-18,28-双[(1S) -1-甲基丙基] -9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1775) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -18-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1776) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异戊基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1777) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并

[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1778) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1779) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1780) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,8,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1781) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1782) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(3,3-二氟丙基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1783) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',33',34',37'-八甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1784) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',16',17',20',33',34',37'-九甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1785) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1786) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-21-(环丙氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1787) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1788) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(吗啉-4-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1789) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1790) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1791) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-8,18-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1792) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1793) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1794) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1795) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环己基-11-异丁基-5,6,12,16,19,33,36-七甲基-35- (4-甲基苄基) -15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1796) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21-环丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1797) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11- (3,3-二氟丙基) -18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1798) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1799) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -18- (羟甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1800) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1801) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基-35- (4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1802) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21-异丁基-7,10,13,16,18,22,26,29-八甲基-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1803) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -11,35-二异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1804) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1805) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1806) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1807) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1808) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,26,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1809) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1810) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(3-吡啶基甲基)-13-(吡咯烷-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1811) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

(1812) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基

丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1813) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1814) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1815) (3S,9S,18S,21S,25S,28S,34S)-28-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1816) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1817) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1818) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1819) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,25,28,31,34,37(14H,22H,26H)-十二酮,

(1820) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环戊基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1821) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1822) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环丙基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1823) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1824) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1825) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1826) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1827) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1828) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1829) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-

(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1830) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-异戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1831) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1832) (3S,9S,18S,21S,25S,28S,34S)-9-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1833) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1834) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1835) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-环戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1836) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-N,7,10,13,16,22,26,29-九甲基-18,28-双[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1837) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(羟甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1838) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-

(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1839) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,38'S,40a'S)-38'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',39'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

(1840) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1841) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1842) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1843) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1844) (3S,6R,9S,18S,21S,25S,28S,34S)-9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1845) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1846) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1847) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1848) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1849) (8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,33,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1850) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1851) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1852) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1853) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

(1854) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1855) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1856) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1857) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1858) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1859) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1860) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁基甲基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1861) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1862) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1863) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,11-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1864) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-]5-(哌啶-1-羰基)-8-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,

4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1865) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18,28-双[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1866) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1867) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

(1868) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(1869) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1870) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1871) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1872) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1873) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-[(3-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双

[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1874) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-苯乙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1875) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1876) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1877) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1878) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3,4-二氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1879) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1880) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(邻甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1881) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-(4-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊

烷]-13-甲酰胺,

(1882) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1883) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-15-烯丙基-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1884) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1885) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1886) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[2-(3-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1887) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1888) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-碘苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1889) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1890) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰

基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1891) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苄基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1892) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-(3-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1893) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1894) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1895) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1896) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1897) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1898) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-(3,3-二氟丙基)-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1899) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,

25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1900) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1901) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1902) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1903) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[4-(甲氧基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1904) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1905) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1906) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1907) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-(3,3-二氟丙基)-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1908) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1909) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1910) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-碘苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1911) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-22-[3-(甲基氨基)-3-氧代-丙基]-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1912) (5S,8S,11S,14aR,21S,26aS,32S,38S,40aS)-8,21-二((S)-仲丁基)-32-(3-氯-4-(三氟甲基)苄基)-11-异丁基-5,6,12,22,36,39-六甲基-38-(4-甲基苄基)二十六氢-2H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-24,1'-环戊烷]-4,7,10,13,20,23,26,31,34,37,40(25H)-十一酮,

(1913) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1914) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1915) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1916) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十

一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1917) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1918) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1919) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-(三氟甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1920) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1921) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-22-[3-(甲基氨基)-3-氧代-丙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1922) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[3-(甲氧基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1923) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1924) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-22-(邻甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1925) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1926) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[[4-(二氟甲基)苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1927) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[[4-氰基苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1928) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1929) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1930) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[[4-(二氟甲基)苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1931) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1932) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1933) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32]-十

一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1934) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1935) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-[(4-甲氧基苯基)甲基]-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1936) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1937) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环戊基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-29-丙基-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1938) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1939) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1940) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1941) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1942) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂

双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1943) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3,4-二氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1944) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-碘苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1945) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1946) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环戊基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-29-丙基-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(1947) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1948) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1949) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1950) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1951) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-

13-甲酰胺,

(1952) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1953) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-碘苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1954) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1955) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1956) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1957) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1958) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1959) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氰基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1960) N-(叔丁基)-2-(((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲

基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-基)甲氧基)乙酰胺,

(1961) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

(1962) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1963) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1964) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1965) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1966) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1967) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1968) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1969) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1970) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1971) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1972) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1973) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1974) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(1975) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1976) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1977) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,

19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1978) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1979) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1980) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1981) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-氰基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1982) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

(1983) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1984) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1985) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[2-(4-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1986) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3,5-二氟-4-(三氟甲基)苯

基]乙基]-22-[4-氟苯基]甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1987) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[4-氟苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1988) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1989) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1990) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1991) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-[(3-甲氧基苯基)甲基]-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(1992) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1993) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1994) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-

十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1995) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H, 22H) -十一酮,

(1996) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1997) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(1998) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(1999) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2000) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-[(3-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2001) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2002) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-氰基苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2003) (5S,8S,11S,14aR,20S,25aS,31S,37S,39aS) -8,20-二((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,21,35,38-六甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-e1:1',2'-v][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-23,1'-环戊烷]-4,7,10,13,19,22,25,30,33,36,39(14H,24H)-十一酮,

(2004) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2005) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2006) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2007) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-17-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2008) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2009) (5S,8S,12R,15S,20aS,26S,29R,32S,34aS,39aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33-七甲基二十四氢螺[氮杂环丁二烯并[1,2-g]二吡咯并[1,2-j:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,39(2H,11H,19H)-十一酮,

(2010) (5S,8S,12R,15S,20aS,26S,29R,32S,37aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33,36-八甲基二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

(2011) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2012) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2013) (5S,8S,12R,15S,20aS,26S,29R,32S,34aS,38aS) -5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33-七甲基二十二氢-25H-螺[双(氮杂环丁二烯并)[1,2-g:1',2'-j]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,38 (2H,11H,19H,34aH) -十一酮,

(2014) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-7'-乙基-19'-异丙基-12',13',16',20',33',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

(2015) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2016) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基-5-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2017) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2018) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-异丁基-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2019) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -5-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2020) (8S,11S,17S,26S,29S,33S,36S) -8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-

26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2021) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[3-(4,4-二氟-1-哌啶基)丙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2022) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)乙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2023) (3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2024) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(2,2,2-三氟乙氧基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2025) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[2-(2-甲氧基乙氧基)乙基]-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2026) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2027) (3S,6S,9S,13R,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-3,4,10,13,14,17,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-31-(丙氧基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2028) (3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2029) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(4-吡啶基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一

氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2030) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-氧杂螺[3.3]庚烷-6-基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2031) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(氧杂环丁烷-3-基甲基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2032) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(3-吡啶基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2033) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(4-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2034) (3S,6S,9S,13S,16S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2035) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2,2-二氟螺[3.3]庚烷-6-基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2036) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[2-(2,2-二氟乙氧基)乙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2037) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2-羟乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2038) 2-[2-[(11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]乙氧基]-N,N-二甲基-乙酰胺,

(2039) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯

苯氧基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2040) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯氧基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2041) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯氧基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2042) (3S,9S,18S,21S,25S,28S,34S)-3-[4-氯苯氧基]甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2043) (3S,9S,18S,21S,25S,28S,34S)-3-[2-氯苯基]甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2044) (3S,9S,18S,21S,25S,28S,34S)-3-[4-氯苯基]甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2045) (3S,9S,18S,21S,25S,28S,34S)-3-[3-氯苯基]甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2046) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊-2-烯基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2047) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(4-羟基-4-甲基-戊-2-烯基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2048) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2049) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2050) 3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]亚乙基]氮杂环丁烷-1-甲酸叔丁酯,

(2051) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[(E)-4-甲氧基丁-2-烯基]-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2052) 4-[(11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁酰胺,

(2053) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-亚基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2054) 4-[(11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁-2-烯酰胺,

(2055) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[3-[4-(三氟甲基)苯基]丙基]螺[1.4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2056) 3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙基]氮杂环丁烷-1-甲酸叔丁酯,

(2057) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲氧基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2058) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-(4-甲基磺酰基苯基)乙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2059) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2060) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(2-(6-(二氟甲基)吡啶-3-基)乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2061) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-(3,4-二氯-5-甲氧基-苯基)乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2062) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯-5-异丙氧基-苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2063) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(2-(苯并呋喃-5-基)乙基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2064) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-29-(2-(1-甲基-1H-吡啶-5-基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2065) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-29-(2-(1-甲基-1H-吡啶-6-基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2066) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(3-丁氧基-4,5-二氯-苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-

31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2067) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲氧基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2068) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2069) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(5-(三氟甲基)吡啶-2-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2070) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(喹啉-6-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2071) 2,3-二氯-5-[2-[(3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-3-基]乙基]苄腈,

(2072) 5-(2-((5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-29-基)乙基)-2-(三氟甲基)苄腈,

(2073) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(3-叔丁氧基-4,5-二氯-苯基)乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2074) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(2-(2,2-二氟苯并[d][1,3]二氧杂环戊烯-5-基)乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2075) 2,3-二氯-5-[2-[(3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲

基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-3-基]乙基]苄腈,

(2076) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(4-(二氟甲氧基)-3-氟苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2077) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(喹啉-7-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2078) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(6-(三氟甲基)吡啶-3-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2079) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-(3,4-二氯-5-异丙氧基-苯基)乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2080) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-29-(3-甲氧基-4-(三氟甲基)苯乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

(2081) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯-5-甲氧基-苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2082) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(3-叔丁氧基-4,5-二氯-苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2083) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(3-丁氧基-4,5-二氯-苯基)乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2084) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18-环戊基-11-异丁基-29- (2- (6-甲氧基吡啶-3-基) 乙基) -5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2085) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18-环戊基-29- (4- (二氟甲基) -3-氟苯乙基) -11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

(2086) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-12- [2- (4-氯-2-氟-苯基) 乙基] -18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2087) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -12- [2- (2,4,5-三氟苯基) 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2088) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -12- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2089) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -12- [2- (2,4-二氟苯基) 乙基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2090) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -12- [2- (2,4,6-三氟苯基) 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2091) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -12- [2- (2,3,4,5,6-五氟苯基) 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2092) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-12- [2- (2-氯-6-氟苯基) 乙基] -18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2093) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18- [(4-氯苯基) 甲基] -12- [2- [3-

氟-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2094) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-12-[2-(5-氯-2-氟-苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2095) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[3-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2096) (3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-3-[2-[2-氟-4-(三氟甲基)苯基]乙基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2097) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(2-氧代-2-吡咯烷-1-基-乙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2098) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[3-(3,3-二氟氮杂环丁烷-1-基)-3-氧代-丙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2099) (3S,9S,12S,18S,27S,30S,34S)-34-(3,3-二氟哌啶-1-羰基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2100) 3-[(3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]-N,N-二甲基-丙酰胺,

(2101) (3S,9S,12S,18S,27S,30S,34S)-34-(4,4-二氟哌啶-1-羰基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2102) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[2-(氮杂环丁烷-1-基)-2-氧代-乙基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-

N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2103) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[3-(氮杂环丁烷-1-基)-3-氧代-丙基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2104) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-氧代-3-吡咯烷-1-基-丙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2105) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-氧代-2-(1-哌啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2106) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(二甲基氨基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2107) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-吗啉代-3-氧代-丙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2108) 3-[(3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-22-基]-N,N-二甲基-丙酰胺,

(2109) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(2-吗啉代-2-氧代-乙基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2110) 3-[(3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-22-丁基-25-[(3-碘苯基)甲

基]-9,16-二异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19-基]-N,N-二甲基-丙酰胺,

(2111) 3-[(3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-22-基]-N-甲基-丙酰胺,

(2112) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-[3-氧代-3-(1-哌啶基) 丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2113) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2114) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基) 甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(苯氧基甲基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2115) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2116) (3S,9S,18S,21S,25R,28S,34S,36R)-36-苄氧基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基) 苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2117) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2118) (3S,9S,18S,21S,25S,28S,34S,36R)-9-(环己基甲基)-36-乙氧基-3-[2-[3-氟-4-(三氟甲基) 苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2119) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2,2-二氟乙氧基)-21-异丁基-7,10,13,16,22,26,29-七

甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2120) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-吡啶基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2121) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-吡啶基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2122) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2123) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2,2-二氟乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2124) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-噻吩基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2125) (3S,9S,18S,21S,25S,28S,34S,36R)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-(间甲苯基甲氧基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2126) (3S,9S,18S,21S,25S,28S,34S,36S)-36-[(3-氯苯基)甲氧基]-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2127) (3S,9S,18S,21S,25S,28S,34S,36S)-9-(环己基甲基)-36-乙氧基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2128) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -36- [[4- (二氟甲氧基) 苯基] 甲氧基] -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22, 26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26, 29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30, 33- 十一酮,

(2129) (3S,9S,18S,21S,25S,28S,34S,36S) -36- [(4- 氯苯基) 甲氧基] -9- (环己基甲 基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲 基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(2130) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲 基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] - 25- (哌啶-1- 羰基) -36- (对甲苯基甲氧基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂 双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(2131) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲 基) 苯基] 乙基] -21,28- 二异丁基-36- [(3- 甲氧基苯基) 甲氧基] -7,10,13,16,22,26,29- 七 甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一 酮,

(2132) (3S,9S,18S,21S,25S,28S,34S,36S) -36- [(2- 氯苯基) 甲氧基] -9- (环己基甲 基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲 基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(2133) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(4- 氯苯基) 甲氧基] -9- (环己基甲 基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲 基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(2134) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(3- 氯苯基) 甲氧基] -9- (环己基甲 基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲 基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

(2135) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -36- [[4- (二氟甲氧基) 苯基] 甲氧基] -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22, 26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26, 29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30, 33- 十一酮,

(2136) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲 基) 苯基] 乙基] -21,28- 二异丁基-36- [(3- 甲氧基苯基) 甲氧基] -7,10,13,16,22,26,29- 七 甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一 氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一

酮,

(2137) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (邻甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2138) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(2-氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2139) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (邻甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2140) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -36- (对甲苯基甲氧基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2141) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (间甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

(2142) (3S,9S,12S,18S,27S,30S,34S) -9- 丁基-18- [(4-氯苯基) 甲基] -12- [(3-乙炔基苯基) 甲基] -3,30- 二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -34- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2143) (11S,17S,26S,29S,33R,36S) -11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -36- 环丁基-17- (环己基甲基) -15,18,21,24,29,30,33,34,37-九甲基-26- [(1S) -1-甲基丙基] -9- 苯基-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2144) (3S,6S,9S,13S,16S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -16,31-二 (环丁基) -3,4,9,10,14,17,19,19,20,29,32-十一甲基-6- [(1S) -1-甲基丙基] -23- 苯基-13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2145) (3S,12S,18S,27S,30S,34R) -12- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -3- 环丁基-18- (环己基甲基) -1,4,6,6,7,16,19,22,25,30,31,34-十二甲基-27- [(1S) -1-甲基丙基] -10- 苯基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2146) (3S,6S,9S,13S,16S,25S,31S,34S) -23- (3-氯苯基) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -16,31-二 (环丁基) -3,4,9,10,14,17,19,19,20,29,32-十一甲基-6-

[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2147) (3S,6S,9S,13S,16S,25S,31S,34S)-23-(4-氯苯基)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,31-二(环丁基)-3,4,9,10,14,17,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2148) (3S,6S,9S,13R,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,31-二(环丁基)-3,4,9,10,13,14,17,19,19,20,29,32-十二甲基-6-[(1S)-1-甲基丙基]-23-苯基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

(2149) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环丁基-17-(环己基甲基)-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(3-噻吩基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2150) (3S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3-环丁基-18-(环己基甲基)-1,4,6,6,7,16,19,22,25,30,31-十一甲基-27-[(1S)-1-甲基丙基]-10-苯基-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

(2151) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环丁基-17-(环己基甲基)-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-9-苯基-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2152) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁基甲基)-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(2153) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(2154) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-乙基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(2155) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

(2156) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(2157) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环丁基-35- (环己基甲基) -5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(2158) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18- (环戊基甲基) -5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(2159) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,11-二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丙基-5,6,12,15,16,19,21,21,22,33,36-十一甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(2160) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-异丁基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

(2161) (8S,11S,17S,26S,29S,33S,36S) -8- [(2-氯苯基) 甲基]-11-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-17- (环己基甲基) -9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S) -1-甲基丙基]-33- (哌啶-1-羰基) -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2162) (8S,11S,17S,26S,29S,33S,36S) -8- [(2-氯苯基) 甲基]-11-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-17- (环己基甲基) -9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S) -1-甲基丙基]-33- (吡咯烷-1-羰基) -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2163) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22- [(2-氯苯基) 甲基]-25-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-23-乙基-N,N,3,4,9,10,14,17,29,32-十甲基-6,16-双[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31- (对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2164) (8S,11S,17S,26S,29S,33S,36S) -8- [(2-氯苯基) 甲基]-11-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-17- (环己基甲基) -9-乙基-36-异丙基-N,N,15,18,21,24,29,30,34,37-十甲基-26-[(1S) -1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

(2165) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22- [(2-氯苯基) 甲基]-25-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-23-乙基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双

[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2166) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-17-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2167) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2168) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(2-甲氧基乙基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2169) 5-[[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲基]吡啶-2-甲腈,

(2170) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(3-氟-4-羟基-苯基)甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2171) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-[(4-甲氧基苯基)甲基]-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2174) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-32-环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代-9-(丙氧基甲基)螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.0^{12,15}]四十一烷-35,1'-环戊烷]-29-甲酰胺,

(2175) (3S,9S,18S,21S,27R,30S,36S)-18-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-30-环戊基-N,N,7,10,13,16,22,28,31-九甲基-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺,

(2176) (3S,9S,12S,17S,20S,23S,29R,32S,38S,40R)-20-[(2S)-丁烷-2-基]-9-(环己基甲基)-32-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-40-乙氧基-N,N,7,10,

17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

(2177) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-32-环戊基-N,N,7,10,17,18,24,30,33-九甲基-9-[(4-甲基苯基)甲基]-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

(2178) (3S,9S,18S,21S,27R,30S,36S)-18,30-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,22,28,31-九甲基-9-[(4-甲基苯基)甲基]-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺,

(2179) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-9,32-二环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

(2180) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-9-[2-(4-甲基哌嗪-1-基)乙基]-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2181) (3S,6S,9S,13S,16S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-[2-(二甲基氨基)乙氧基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2182) (3S,6S,9S,13S,16S,25S,31S,34S)-23-[2-(氮杂环丁烷-3-基)乙基]-31-(环己基甲基)-16-环戊基-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

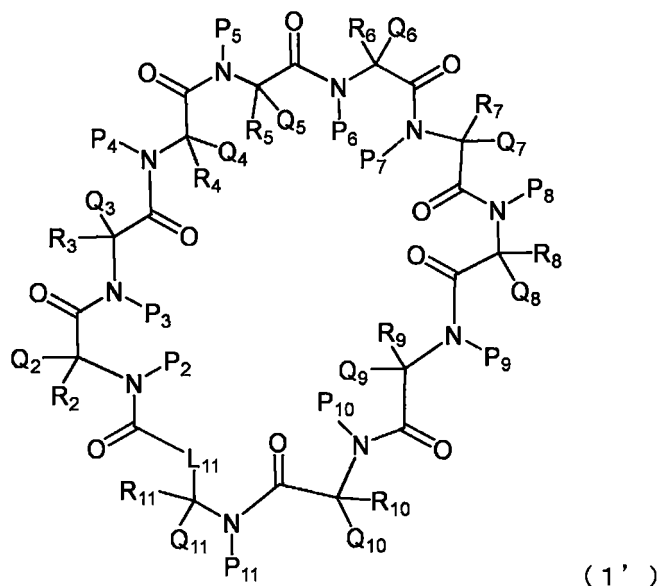
(2183) (3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-23-[2-[2-(甲基氨基)乙氧基]乙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

(2184) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-哌嗪-1-基乙基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

(2185) (11S,17S,26S,29S,33S,36S) -9-[2-(2-氨基乙氧基)乙基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,以及

(2186) (11S,17S,26S,29S,33S,36S) -9-(4-氨基丁基)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮。

13. 由下式(1')表示的环状肽化合物或其盐、或它们的溶剂合物,



式中,

R_2 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、氰基和 C_1 - C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

R_2 和 P_2 与 R_2 所键合的碳原子和 P_2 所键合的氮原子一起形成4~7元饱和杂环,或者

R_2 和 Q_2 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_2 和 P_2 形成4~7元饱和杂环的情况之外, P_2 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_2 和 Q_2 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_2 为氢或 C_1 - C_6 烷基,

R_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,其中的每一个任选被独立地选自由羟基和氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,或者

R_3 和 P_3 与 R_3 所键合的碳原子和 P_3 所键合的氮原子一起形成4~7元饱和杂环,或者

R_3 和 Q_3 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1-C_6 烷基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、或 C_3-C_8 环烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或任选被一个或多个卤素取代的4~8元环状氨基的 C_1-C_6 氨基烷基组成的组中的一个或多个基团所取代,

除了 R_3 和 Q_3 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_3 是氢或 C_1-C_6 烷基,

R_4 是氢或 C_1-C_6 烷基,或者

R_4 和 P_4 与 R_4 所键合的碳原子和 P_4 所键合的氮原子一起形成4~7元饱和杂环,或者

R_4 和 Q_4 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是氢、 C_1-C_6 烷基或 C_1-C_6 烷氧基、 C_1-C_6 烷基,它们中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_4 和 Q_4 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_4 是氢或 C_1-C_6 烷基,

R_5 是 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基、 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基、 C_1-C_6 烷基、 C_3-C_8 环烷氧基、 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、 C_6-C_{10} 芳氧基、 C_1-C_6 烷基、 C_7-C_{14} 芳烷氧基、 C_1-C_6 烷基、或5~10元杂芳基、 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氰基和 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者 R_5 与 R_8 一起形成 C_4-C_8 亚烷基,或者

R_5 和 P_5 与 R_5 所键合的碳原子和 P_5 所键合的氮原子一起形成4~7元饱和杂环,或者

R_5 和 Q_5 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_5 和 P_5 形成4~7元饱和杂环的情况之外, P_5 是氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_5 和 Q_5 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_5 为氢或 C_1-C_6 烷基,

R_6 是氢或 C_1-C_6 烷基,或者

R_6 和 P_6 与 R_6 所键合的碳原子和 P_6 所键合的氮原子一起形成4~7元饱和杂环,或者

R_6 和 Q_6 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1-C_6 烷基或 C_3-C_8 环烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_6 和 Q_6 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_6 为氢或 C_1-C_6 烷基,

R_7 是 C_6-C_{10} 芳氧基、 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、 C_7-C_{14} 芳烷氧基、 C_1-C_6 烷基、或5~10元杂芳基、 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_2-C_6 炔基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氰基、 C_1-C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个

个基团所取代,或者

R_7 和 P_7 与 R_7 所键合的碳原子和 P_7 所键合的氮原子一起形成4~7元饱和杂环,或者

R_7 和 Q_7 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_7 和 P_7 形成4~7元饱和杂环的情况之外, P_7 是氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_7 和 Q_7 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_7 为氢或 C_1-C_6 烷基,

R_8 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_2-C_6 烯氧基羰基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_6-C_{10} 芳氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、 C_7-C_{14} 芳氧基 C_1-C_6 烷基、5~10元杂芳基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷氧基 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、羧基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_2-C_6 炔基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氰基、选自 $-NH_2$ 、受保护的氨基、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基羰基、4~7元杂环烷叉基、受保护的4~7元杂环烷叉基、4~7元杂环基、以及受保护的4~7元杂环基所组成的组中的一个或多个基团所取代,或者 R_8 与 R_5 一起形成 C_4-C_8 亚烷基,或者

R_8 和 P_8 与 R_8 所键合的碳原子和 P_8 所键合的氮原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与饱和碳环或芳香环稠合,该4~7元饱和杂环任选被卤素、氧代、 C_6-C_{10} 芳基、5~10元杂芳基、任选被一个或多个卤素取代的4~8元环状氨基、或 OS_8 取代, S_8 是氢、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、或 C_1-C_6 卤代烷氧基取代的 C_7-C_{14} 芳烷基、或5~10元杂芳基 C_1-C_6 烷基,或者

R_8 和 Q_8 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1-C_6 烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_2-C_6 烯基、 C_1-C_6 烷氧基 C_2-C_6 烯基、 C_3-C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1-C_6 烷基、 C_6-C_{10} 芳基、 C_7-C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代,

除了 R_8 和 Q_8 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_8 为氢或 C_1-C_6 烷基,

R_9 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、或5~10元杂芳基 C_1-C_6 烷氧基 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氨基选自 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基的氨基羰基、以及 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

R_9 和 P_9 与 R_9 所键合的碳原子和 P_9 所键合的氮原子一起形成4~7元饱和杂环,或者

R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独

立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代，

除了 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况之外， Q_9 为氢或 C_1 - C_6 烷基，

R_{10} 是 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基，其中的每一个任选被独立地选自自由卤素、羟基、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代，或者

R_{10} 和 P_{10} 与 R_{10} 所键合的碳原子和 P_{10} 所键合的氮原子一起形成4~7元饱和杂环，或者

R_{10} 和 Q_{10} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环，或者

除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外， P_{10} 是氢或 C_1 - C_6 烷基，其中该 C_1 - C_6 烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代，

除了 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况之外， Q_{10} 为氢或 C_1 - C_6 烷基，并且

L_1 是 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或者 $-(CH_2)_nS(O)_2(CH_2)_m-$ ，其中n和m各自独立地为1或2，

R_{11} 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、或氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基，其中的每一个任选被独立地选自自由卤素、氧代、羟基、 C_1 - C_6 烷基、4~7元杂环基、氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代，或者 R_{11} 是包含1~4个氨基酸残基的肽链，或者

R_{11} 和 P_{11} 与 R_{11} 所键合的碳原子和 P_{11} 所键合的氮原子一起形成4~7元饱和杂环，或者

R_{11} 和 Q_{11} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环，或者

R_{11} 和 M_{11} 与 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成3~8元脂环，

除了 R_{11} 和 P_{11} 形成4~7元饱和杂环的情况之外， P_{11} 是氢或 C_1 - C_6 烷基，其中该 C_1 - C_6 烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基且其中的每一个任选被卤素取代的氨基、以及氨基选自 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基的氨基羰基所组成的组中的一个或多个基团所取代，

除了 R_{11} 和 Q_{11} 形成3~8元脂环或4~7元饱和杂环的情况之外， Q_{11} 为氢或 C_1 - C_6 烷基，

除了 R_{11} 和 M_{11} 形成3~8元脂环的情况之外， M_{11} 是氢，

$P_2 \sim P_{11}$ 中的至少3个并非氢。

14. 根据权利要求13所述的环状肽化合物或其盐、或它们的溶剂合物，其中，所述环状肽化合物选自以下化合物组成的组：

(2172) (3S, 9S, 18S, 24R, 27S, 33S) -18-[(2S) -丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-27-环戊基-N, N, 7, 10, 13, 16, 25, 28-八甲基-2, 5, 8, 11, 14, 17, 20, 26, 29, 32-十氧代螺[22-硫杂-1, 4, 7, 10, 13, 16, 19, 25, 28, 31-十氮杂双环[31.3.0]三十六烷-30, 1'-环戊烷]-24-甲酰胺，

(2173) (3S,9S,18S,24R,27S,33S) -18,27-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,25,28-八甲基-9-[(4-甲基苯基)甲基]-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺。

15. 一种药物组合物,其含有权利要求1~14中的任意一项所述的环状肽化合物或其盐、或它们的溶剂合物。

16. 选自由以下化合物构成的组中的氨基酸或其盐、或它们的溶剂合物:

- (001_aa053) 3-二羟硼基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(002_aa134) 4-[3,5-二氟-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸,
(003_aa133) 2-(9H-芴-9-基甲氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸,
(004_aa132) 4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸,
(005_aa049) 2-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(五氟- λ^6 -硫烷基)苯基]丁酸,
(006_aa154) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-碘苯基)丙酸,
(007_aa151) 3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(008_aa128) 3-(5-溴-2-甲基-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(009_aa127) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(5-碘-2-甲基-苯基)丙酸,
(010_aa126) 3-(2-溴-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(011_aa122) 3-(2-氯-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(012_aa121) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-5-碘-苯基)丙酸,
(013_aa120) 3-(3,5-二氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(014_aa118) 3-(2,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(015_aa116) 3-(2,6-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(016_aa114) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
(017_aa113) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-(对甲苯基)丙酸,
(018_aa110) 3-(4-氯苯基)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸,
(019_aa106) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-氟-5-碘-苯基)丙酸,
(020_aa105) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-3-碘-苯基)丙酸,
(021_aa104) 3-(3-氯-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(022_aa097) 3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(023_aa096) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸,
(024_aa095) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸,
(025_aa094) 3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(026_aa090) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
(027_aa087) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸,
(028_aa086) 3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(029_aa085) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(对甲苯基)丙酸,
(030_aa082) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-氟苯基)丙酸,
(031_aa081) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲氧基)苯基]丙酸,

- (032_aa080) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-氟苯基)丙酸,
(033_aa077) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(邻甲苯基)丙酸,
(034_aa074) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲氧基)苯基]丙酸,
(035_aa073) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲基)苯基]丙酸,
(036_aa067) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸,
(037_aa066) 3-[4-(二氟甲基)苯基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(038_aa064) 3-(2-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(039_aa063) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸,
(040_aa061) 3-(4-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(041_aa060) 3-(3-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,
(042_aa108) 3-(9H-芴-9-基甲氧基羰基氨基)-4-异戊氧基丁酸,
(043_aa107) 4-[2-(叔丁基氨基)-2-氧代-乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸,
(044_aa119) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸,
(045_aa098) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸,
(046_aa088) 1-[9H-芴-9-基甲氧基羰基(甲基)氨基]环戊烷甲酸,
(047_aa102) 1-(9H-芴-9-基甲氧基羰基)-4-羟基-吡咯烷-2-甲酸,
(048_aa101) 1-(9H-芴-9-基甲氧基羰基)-4-羟基-吡咯烷-2-甲酸,
(049_aa149) 3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(1-哌啶基)丁酸,
(050_aa052) 3-[9H-芴-9-基甲氧基羰基(丙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
(051_aa033-b) 4-烯丙氧基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(052_aa032) 3-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
(053_aa031) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基-丁酸,
(054_aa030) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-噁唑烷-3-基-4-氧代丁酸,
(055_aa029) 3-(9H-芴-9-基甲氧基羰基氨基)-4-噁唑烷-3-基-4-氧代丁酸,
(056_aa028) 3-(((9H-芴-9-基)甲氧基)羰基(甲基)氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
(057_aa027) 3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
(058_aa026) 3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
(059_aa025) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
(060_aa024) 4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,
(061_aa023) 3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基-1-哌啶基)-4-氧代丁酸,
(062_aa022) 3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉代-4-氧代丁酸,
(063_aa021) 4-(1,1-二氧代-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,

- (064_aa020) 4-(4-叔丁基-1-哌啶基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,
(065_aa019) 4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,
(066_aa018) 3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸,
(067_aa017) 3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
(068_aa016) 3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
(069_aa015) 4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(070_aa014) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基-1-哌啶基)-4-氧代丁酸,
(071_aa013) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸,
(072_aa012) 4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(073_aa011) 4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(074_aa010) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
(075_aa009) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
(076_aa008) 4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(077_aa007) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉代-4-氧代丁酸,
(078_aa006) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
(079_aa040) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-吡啶基)丁酸,
(080_aa039) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-吡啶基)丁酸,
(081_aa125) 3-(5-溴-2-噻吩基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(082_aa124) 3-(5-氯-2-噻吩基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(083_aa068) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-吡啶基)丙酸,
(084_aa065) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-吡啶基)丙酸,
(085_aa038) 3-(5-溴-3-吡啶基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,
(086_aa037) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲基-3-吡啶基)丙酸,
(087_aa036) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲氧基-3-吡啶基)丙酸,
(088_aa035) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲基-3-吡啶基)丙酸,
(089_aa034) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲氧基-3-吡啶基)丙酸,
(090_aa033) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[6-(三氟甲基)-3-吡啶基]丙酸,
(091_aa153) 4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
(092_aa152) 4-(4,4-二氟-1-哌啶基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧

代丁酸，

(093_aa092) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲基磺酰基丁酸，

(094_aa047) 4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸，

(095_aa093) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丁酸，

(096_aa078) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲氧基丁酸，

(097_aa069) 3-(环丙氧基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸，

(098_aa062) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丙酸，

(099_aa055) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-异戊氧基丙酸，

(100_aa054) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-羟基丙酸，

(101_aa045) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸，

(102_aa044) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸，

(103_aa043) 3-(环丁氧基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸，

(104_aa042) 3-(环丁氧基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸，

(105_aa041) 3-(环丙氧基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸，

(106_aa150) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5,5-二氟戊酸，

(107_aa091) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4,4,4-三氟丁酸，

(108_aa089) 2-环丙基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸，

(109_aa079) 2-环戊基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸，

(110_aa075) 2-环丁基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸，

(111_aa083) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-炔酸，

(112_aa076) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]己-5-炔酸，

(113_aa048) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-烯酸，

(114_aa141) 3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸，

(115_aa131) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸，

(116_aa130) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]辛酸，

(117_aa112) 3-环己基-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸，

(118_aa111) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-甲基戊酸，

(119_aa109) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸，

(120_aa084) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]庚酸，

(121_aa072) 3-环丁基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸，

(122_aa071) 3-环戊基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸，

(123_aa070) 3-环丙基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸，

(124_aa051) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸，

(125_aa050) 2-[9H-芴-9-基甲氧基羰基(丙基)氨基]丙酸，

(126_aa004) 2-[9H-芴-9-基甲氧基羰基(异丙基)氨基]乙酸，

(127_aa003) 2-[环丙基(9H-芴-9-基甲氧基羰基)氨基]乙酸，

(128_aa002) 2-[2-(4,4-二氟-1-哌啶基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸，

(129_aa001) 2-[3-(4,4-二氟-1-哌啶基)丙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸，

(130_aa155) 2-[3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代-丙基]硫烷基乙酸,

(131_aa157) 2-[2-(氮杂环丁烷-3-基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸,

(132_aa158) 2-[2-(2-氨基乙氧基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸,和

(133_aa161) 2-[9H-芴-9-基甲氧基羰基-[2-[2-(甲基氨基)乙氧基]乙基]氨基]乙酸。

具有Kras抑制作用的环状肽化合物

技术领域

[0001] 本发明涉及具有Kras抑制作用的环状肽化合物、用于环状肽化合物的制备的非天然氨基酸、以及它们的制备方法。

背景技术

[0002] Ras是属于小GTP酶家族(small GTPase family)的蛋白质,已知有Kras、Nras和Hras。Ras根据与GDP或GTP的键合状态被定义为失活态或活化态,Ras通过基于GEF(鸟嘌呤核苷酸交换因子)的由GDP到GTP的转换反应而活化,并且通过基于GAP(GTP酶活化蛋白)的GTP的水解反应而失活(非专利文献1)。被活化的Ras通过对MAPK通路、PI3K/Akt通路、RAL通路等多种下游信号进行活化来诱导细胞增殖、存活和分化,而Ras的持续活化对于癌症的发生、发展起到重要的作用。已知在癌症中,Ras的上游信号的活化、Ras的持续性活化和/或Ras的活化型突变会导致Ras-RAF-MEK-ERK通路发生活化(非专利文献2)。在许多类型的癌症中都发现了这些Ras活化型突变。作为Ras突变的热点已知有G12、G13和Q61,在Kras的G12和Nras的Q61经常发现突变。另外,还已知这些突变与患者的预后有关(非专利文献3)。

[0003] 对于接近以抑制蛋白质与蛋白质的相互作用为代表的棘手的目标(tough target)而言,与小分子化合物相比,中等分子化合物(分子量500-2000)可能更加优异。此外,与抗体相比,中等分子化合物在能够移动到细胞内这一点上也可能更加优异。在具有生理活性的中等分子化合物中,肽类药物是已上市有40种以上的高价值的分子种类(非专利文献4)。作为这些肽类药物的代表例,可列举环孢菌素A和多粘菌素B。它们是含有一些非天然氨基酸的肽。非天然氨基酸是指并没有天然在mRNA上编码的氨基酸,非常有趣的是,天然存在的环孢菌素A和多粘菌素B中包含并没有在mRNA上编码的氨基酸。

[0004] 自从发现天然来源的肽可用作药物以来,具有药理活性且可被生物体吸收的肽受到关注,并且已积极地研究了分子量为500~2000左右的肽(非专利文献5)。

[0005] 报道了用于提高中分子肽的膜透过性和代谢稳定性的条件(满足类药性所必要的条件),所述膜透过性和代谢稳定性可有助于改善生物动力学(专利文献1)。

[0006] 此外,作为中分子肽可有助于改善生物动力学的条件,明确了满足环状肽的类药性所必要的条件(专利文献2)。

[0007] 已发现与Ras键合的肽,并通过X射线结构分析分析出环状肽与Ras之间的键合部位(非专利文献6、非专利文献7、非专利文献8)。另外,还发现了提示Ras与SOS的键合抑制的环状肽(专利文献3)。另外,在特定化合物与Ras的键合的竞争试验中发现了提示与Ras的键合抑制的环状肽(专利文献4)。

[0008] 背景技术文献

[0009] 专利文献

[0010] [专利文献1]国际公开第2013/100132号

[0011] [专利文献2]国际公开第2018/225864号

[0012] [专利文献3]国际公开第2012/122059号

- [0013] [专利文献4]国际公开第2017/181061号
- [0014] 非专利文献
- [0015] [非专利文献1]Nat.Rev.DrugDiscov.2014 Nov;13(11):828-851.
- [0016] [非专利文献2]Nat.Rev.DrugDiscov.2014 Dec;13(12):928-942.
- [0017] [非专利文献3]Nat.Rev.DrugDiscov.2016 Nov;15(11):771-785.
- [0018] [非专利文献4]Future Med.Chem.2009,1,1289-1310.
- [0019] [非专利文献5]Current Topics in Medicinal Chemistry,2013,Vol.13,No.7, 821-836.
- [0020] [非专利文献6]Biochem.Biophys.Res.Comm.2017,484,605-611.
- [0021] [非专利文献7]Bioorg.Med.Chem.Lett.2017,27,2757-2761.
- [0022] [非专利文献8]ACS Med.Chem.Lett.2017,8,732-736.

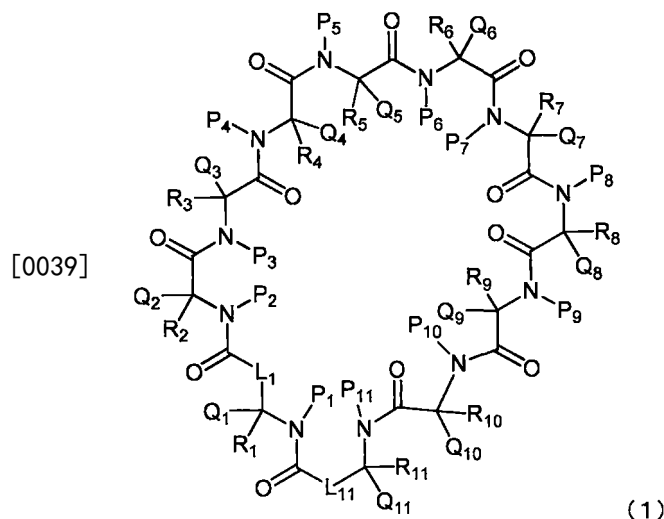
发明内容

- [0023] 发明所要解决的技术问题
- [0024] 本发明提供一种对Ras突变癌有效的化合物、以及对其制备有用的非天然氨基酸。
- [0025] 专利文献1和专利文献2中有关于类药物肽(drug-likepeptide)的记载,但没有记载对包括Ras突变癌在内的癌症具有抗肿瘤作用的肽。
- [0026] 专利文献3记载了Ras与SOS的键合抑制,另外专利文献4记载了与和Ras键合的化合物竞争的肽,但是这些引用文献中没有公开药理作用、特别是对肿瘤细胞的作用。另外,这些引用文献中没有记载类药物肽。
- [0027] 非专利文献1详细公开了Ras与癌症之间的关系。尽管该文献记载了与Ras键合的分子,并且在临床前研究中显示了有效性,但并没有作为药物对Ras突变癌显示出特异的有效性的化合物,也没有公开类药物的环状肽。
- [0028] 非专利文献2详细说明了Ras和Ras下游的RAF-MEK-ERK通路。尽管该文献提示了利用RAF、MEK和ERK的抑制剂治疗Ras突变癌的可能性,但并没有公开直接抑制Ras的化合物。
- [0029] 非专利文献3记载了与Ras的GTP/GDP键合部位键合从而抑制Ras的功能的化合物及其原理。该文献详细说明了与GTP/GDP键合部位的相互作用,但没有公开药理作用、尤其是对肿瘤细胞的作用。
- [0030] 非专利文献4记载了用作药物的肽,但没有记载类药物肽,也没有记载对Ras突变癌有用的肽。
- [0031] 非专利文献5记载了环状肽的分子形态和其药代动力学,但没有记载对Ras突变癌有用的化合物。
- [0032] 非专利文献6~8记载了与Ras键合的肽,但是该肽对肿瘤细胞的作用有限,并且这些文献没有记载类药物肽。
- [0033] 尽管对于具有Ras突变的癌症没有有效的治疗方法、存在较大的未满足的需求,但尚未开发出直接抑制Ras并显示临床治疗效果的药剂。另外,还没有发现满足类药性的肽。
- [0034] 作为本发明对象的肽化合物组通过直接与Ras键合而抑制与SOS的相互作用的作用机制来抑制Ras活化,是抑制具有Ras突变的癌细胞的增殖的划时代的药物。
- [0035] 用于解决问题的手段

[0036] 本发明人努力探索研究具有Ras抑制作用的环状肽化合物,结果发现了与Ras相互作用的环状肽化合物。并且发现了该环状肽化合物抑制Ras和SOS之间的键合。此外,还发现了该环状肽化合物中所含的特定的非天然氨基酸及其制备方法。发现了作为该环状肽化合物的药理作用对具有Ras突变的肿瘤细胞具有增殖抑制作用。

[0037] 本发明的非限定性的一个具体方式中包含以下方式。

[0038] [1]由下式(1)表示的环状肽化合物或其盐、或者它们的溶剂合物:



[0040] 式中,

[0041] L_1 是单键、或者 $-\text{CHM}_1-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$,其中n和m各自独立地为1或2,

[0042] R_1 是氢、 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、氨基羰基(该氨基是 $-\text{NH}_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者

[0043] R_1 和 P_1 与 R_1 所键合的碳原子和 P_1 所键合的氮原子一起形成4~7元饱和杂环,或者

[0044] R_1 和 Q_1 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0045] R_1 和 M_1 与 R_1 所键合的碳原子和 M_1 所键合的碳原子一起形成3~8元脂环,

[0046] 除了 R_1 和 P_1 形成4~7元饱和杂环的情况之外, P_1 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-\text{NH}_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-\text{NH}_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0047] 除了 R_1 和 Q_1 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_1 为氢或 C_1 - C_6 烷基,并且

[0048] 除了 R_1 和 M_1 形成3~8元脂环的情况之外, M_1 是氢,

[0049] R_2 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、氰基和 C_1 - C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

[0050] R_2 和 P_2 与 R_2 所键合的碳原子和 P_2 所键合的氮原子一起形成4~7元饱和杂环,或者

[0051] R_2 和 Q_2 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0052] 除了 R_2 和 P_2 形成4~7元饱和杂环的情况之外, P_2 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0053] 除了 R_2 和 Q_2 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_2 为氢或 C_1 - C_6 烷基,

[0054] R_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,其中的每一个任选被独立地选自由羟基和氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,或者

[0055] R_3 和 P_3 与 R_3 所键合的碳原子和 P_3 所键合的氮原子一起形成4~7元饱和杂环,或者

[0056] R_3 和 Q_3 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0057] 除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、或 C_3 - C_8 环烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及 C_1 - C_6 氨基烷基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,该4~8元环状氨基任选被1个或多个卤素取代)所组成的组中的一个或多个基团所取代,

[0058] 除了 R_3 和 Q_3 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_3 为氢或 C_1 - C_6 烷基,

[0059] R_4 是氢、 C_1 - C_6 烷基,或者

[0060] R_4 和 P_4 与 R_4 所键合的碳原子和 P_4 所键合的氮原子一起形成4~7元饱和杂环,或者

[0061] R_4 和 Q_4 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0062] 除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是氢、 C_1 - C_6 烷基、或 C_1 - C_6 烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0063] 除了 R_4 和 Q_4 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_4 是氢或 C_1 - C_6 烷基,

[0064] R_5 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基和 C_1 - C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者 R_5 与 R_8 一起形成 C_4 - C_8 亚烷基,或者

[0065] R_5 和 P_5 与 R_5 所键合的碳原子和 P_5 所键合的氮原子一起形成4~7元饱和杂环,或者

[0066] R_5 和 Q_5 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0067] 除了 R_5 和 P_5 形成4~7元饱和杂环的情况之外, P_5 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-

NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0068] 除了R₅和Q₅形成3~8元脂环或4~7元饱和杂环的情况之外,Q₅为氢或C₁-C₆烷基,

[0069] R₆是氢、C₁-C₆烷基,或者

[0070] R₆和P₆与R₆所键合的碳原子和P₆所键合的氮原子一起形成4~7元饱和杂环,或者

[0071] R₆和Q₆与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0072] 除了R₆和P₆形成4~7元饱和杂环的情况之外,P₆是C₁-C₆烷基或C₃-C₈环烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0073] 除了R₆和Q₆形成3~8元脂环或4~7元饱和杂环的情况之外,Q₆为氢或C₁-C₆烷基,

[0074] R₇是C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷基、C₇-C₁₄芳烷氧基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆炔基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氰基、C₁-C₆烷基磺酰基、以及SF₅所组成的组中的一个或多个基团所取代,或者

[0075] R₇和P₇与R₇所键合的碳原子和P₇所键合的氮原子一起形成4~7元饱和杂环,或者

[0076] R₇和Q₇与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0077] 除了R₇和P₇形成4~7元饱和杂环的情况之外,P₇是氢或C₁-C₆烷基,该C₁-C₆烷基任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0078] 除了R₇和Q₇形成3~8元脂环或4~7元饱和杂环的情况之外,Q₇为氢或C₁-C₆烷基,

[0079] R₈是氢、C₁-C₆烷基、C₂-C₆烯基、C₂-C₆炔基、C₁-C₆烷氧基C₁-C₆烷基、C₂-C₆烯氧基羰基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷基、C₇-C₁₄芳烷氧基C₁-C₆烷基、5~10元杂芳基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷氧基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、羟基、羧基、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆炔基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氰基、氨基(该氨基是-NH₂、受保护的氨基(protected amino)、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、4~7元杂环烷叉基、受保护的4~7元杂环烷叉基、4~7元杂环基、以及受保护的4~7元杂环基所组成的组中的一个或多个基团所取代,或者R₈与R₅一起形成C₄-C₈亚烷基,或者

[0080] R₈和P₈与R₈所键合的碳原子和P₈所键合的氮原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与饱和碳环或芳香环稠合,该4~7元饱和杂环任选被卤素、氧代、C₆-C₁₀芳基、5~10元杂芳基、4~8元环状氨基(该环状氨基任选被一个或多个卤素取代)、或OS₈取代,S₈是氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆羟烷基、C₇-C₁₄芳烷基(该芳烷基任选被一个或多个卤素、C₁-C₆烷基、C₁-C₆烷氧基、或C₁-C₆卤代烷氧基取代)、或5~10元杂芳基C₁-C₆烷基,

或者

[0081] R_8 和 Q_8 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0082] 除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷氧基、 C_2 - C_6 烯基、 C_3 - C_8 环烷基、4~7元杂环基、4~7元杂环基、 C_1 - C_6 烷基、 C_6 - C_{10} 芳基、 C_7 - C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基、 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素或 C_1 - C_6 烷基取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0083] 除了 R_8 和 Q_8 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_8 为氢或 C_1 - C_6 烷基,

[0084] R_9 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、或5~10元杂芳基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)、以及 C_1 - C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

[0085] R_9 和 P_9 与 R_9 所键合的碳原子和 P_9 所键合的氮原子一起形成4~7元饱和杂环,或者

[0086] R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0087] 除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0088] 除了 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_9 为氢或 C_1 - C_6 烷基,

[0089] R_{10} 是 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,其中的每一个任选被独立地选自由卤素、羟基、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者

[0090] R_{10} 和 P_{10} 与 R_{10} 所键合的碳原子和 P_{10} 所键合的氮原子一起形成4~7元饱和杂环,或者

[0091] R_{10} 和 Q_{10} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0092] 除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外, P_{10} 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0093] 除了 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{10} 为氢或 C_1 - C_6 烷基,并且

[0094] L_1 是单键、或者 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或 $-(CH_2)_nS(O)_2(CH_2)_m-$,其中n和m各自独立地为1或2,

[0095] R_{11} 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、或

氨基羰基 (该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或 4~8 元环状氨基), 其中的每一个任选被独立地选自由卤素、氧代、羟基、 $\text{C}_1\text{-C}_6$ 烷基、4~7 元杂环基、氨基羰基 (该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或 4~8 元环状氨基)、以及 $\text{C}_1\text{-C}_6$ 烷基磺酰基组成的组中的一个或多个基团所取代, 或者 R_{11} 是包含 1~4 个氨基酸残基的肽链, 或者

[0096] R_{11} 和 P_{11} 与 R_{11} 所键合的碳原子和 P_{11} 所键合的氮原子一起形成 4~7 元饱和杂环, 或者

[0097] R_{11} 和 Q_{11} 与它们所键合的碳原子一起形成 3~8 元脂环或 4~7 元饱和杂环, 或者

[0098] R_{11} 和 M_{11} 与 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成 3~8 元脂环,

[0099] 除了 R_{11} 和 P_{11} 形成 4~7 元饱和杂环的情况之外, P_{11} 是氢或 $\text{C}_1\text{-C}_6$ 烷基, 其中该 $\text{C}_1\text{-C}_6$ 烷基任选被独立地选自由卤素、羟基、 $\text{C}_1\text{-C}_6$ 烷氧基、氨基 (该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或 4~8 元环状氨基, 其中的每一个任选被卤素取代)、以及氨基羰基 (该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或 4~8 元环状氨基) 所组成的组中的一个或多个基团所取代,

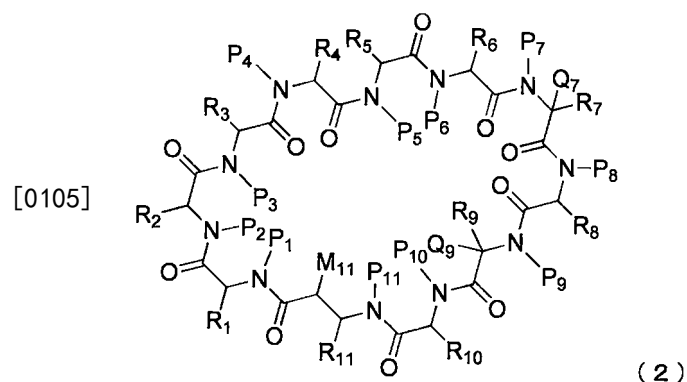
[0100] 除了 R_{11} 和 Q_{11} 形成 3~8 元脂环或 4~7 元饱和杂环的情况之外, Q_{11} 为氢或 $\text{C}_1\text{-C}_6$ 烷基,

[0101] 除了 R_{11} 和 M_{11} 形成 3~8 元脂环的情况之外, M_{11} 是氢,

[0102] 其中, 在 L_1 是单键的情况下, L_{11} 是 $-\text{CHM}_{11}-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或者 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$, 而在 L_1 是 $-\text{CHM}_1-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或者 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 的情况下, L_{11} 是单键, 并且

[0103] $\text{P}_1\sim\text{P}_{11}$ 中的至少 3 个并非是氢。

[0104] [2][1] 中记载的环状肽化合物或其盐、或它们的溶剂合物, 其中所述环状肽化合物由下式 (2) 表示:



[0106] 式中,

[0107] R_1 是 $\text{C}_1\text{-C}_6$ 烷基、 $\text{C}_1\text{-C}_6$ 卤代烷基、 $\text{C}_1\text{-C}_6$ 羟烷基、 $\text{C}_1\text{-C}_6$ 烷基磺酰基 $\text{C}_1\text{-C}_6$ 烷基、 $\text{C}_2\text{-C}_6$ 炔基、 $\text{C}_1\text{-C}_6$ 烷氧基 $\text{C}_1\text{-C}_6$ 烷基 (该 $\text{C}_1\text{-C}_6$ 烷氧基 $\text{C}_1\text{-C}_6$ 烷基任选被一个或多个卤素、氨基羰基 (该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或 4~8 元环状氨基)、或羟基取代)、 $\text{C}_3\text{-C}_8$ 环烷基、 $\text{C}_3\text{-C}_8$ 环烷基 $\text{C}_1\text{-C}_6$ 烷基、或 $\text{C}_3\text{-C}_8$ 环烷氧基 $\text{C}_1\text{-C}_6$ 烷基,

[0108] R_1 和 P_1 与 P_1 所键合的氮原子和 R_1 所键合的碳原子一起形成 4~7 元饱和杂环, 或者

[0109] 除了 R_1 和 P_1 形成 4~7 元饱和杂环的情况之外, P_1 是氢或 $\text{C}_1\text{-C}_6$ 烷基,

[0110] R_2 是 $\text{C}_1\text{-C}_6$ 烷基、 $\text{C}_1\text{-C}_6$ 卤代烷基、 $\text{C}_1\text{-C}_6$ 羟烷基、 $\text{C}_1\text{-C}_6$ 烷基磺酰基 $\text{C}_1\text{-C}_6$ 烷基、 $\text{C}_1\text{-C}_6$ 炔基、 $\text{C}_2\text{-C}_6$ 烯基、 $\text{C}_2\text{-C}_6$ 炔基、任选被一个或多个卤素取代的 $\text{C}_1\text{-C}_6$ 烷氧基 $\text{C}_1\text{-C}_6$ 烷基、 $\text{C}_3\text{-C}_8$ 环烷基、 $\text{C}_3\text{-C}_8$ 环烷基 $\text{C}_1\text{-C}_6$ 烷基、或 $\text{C}_3\text{-C}_8$ 环烷氧基 $\text{C}_1\text{-C}_6$ 烷基,

[0111] P_2 是氢,

[0112] R_3 是氢、 C_1-C_6 烷基、 C_1-C_6 羟烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基(该 C_1-C_6 烷氧基 C_1-C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、氨基羰基 C_1-C_6 烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、或 C_7-C_{14} 芳烷基,或者

[0113] R_3 和 P_3 与 P_3 所键合的氮原子和 R_3 所键合的碳原子一起形成4~7元饱和杂环,

[0114] 除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1-C_6 烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_1-C_6 氨基烷基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、或 C_3-C_8 环烷基,

[0115] R_4 是氢、 C_1-C_6 烷基,或者

[0116] R_4 和 P_4 与 P_4 所键合的氮原子和 R_4 所键合的碳原子一起形成4~7元饱和杂环,

[0117] 除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是 C_1-C_6 烷基或 C_1-C_6 烷氧基 C_1-C_6 烷基,

[0118] R_5 是 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_2-C_6 烯基、 C_1-C_6 烷基磺酰基 C_1-C_6 烷基、 C_2-C_6 炔基、任选被一个或多个卤素取代的 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基(该 C_7-C_{14} 芳烷基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷基、 C_1-C_6 卤代烷氧基、或氰基取代)、任选被一个或多个卤素取代的 C_6-C_{10} 芳氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷基,或者 R_5 与 R_8 一起形成 C_4-C_8 亚烷基,

[0119] P_5 是氢或 C_1-C_6 烷基,

[0120] R_6 是氢或 C_1-C_6 烷基,或者

[0121] R_6 和 P_6 与 P_6 所键合的氮原子和 R_6 所键合的碳原子一起形成4~7元饱和杂环,

[0122] 除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1-C_6 烷基、或 C_3-C_8 环烷基,

[0123] R_7 是 C_6-C_{10} 芳氧基 C_1-C_6 烷基(该 C_6-C_{10} 芳氧基 C_1-C_6 烷基任选被独立地选自自由卤素和 C_1-C_6 卤代烷基组成的组中的一个或多个基团所取代)、 C_7-C_{14} 芳烷基(该 C_7-C_{14} 芳烷基任选被独立地选自自由卤素、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、 C_2-C_6 炔基、氰基、 C_1-C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代)、任选被一个或多个卤素取代的 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷基(该5~10元杂芳基 C_1-C_6 烷基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 卤代烷基或 C_1-C_6 烷氧基取代),

[0124] Q_7 是氢或 C_1-C_6 烷基,

[0125] P_7 是氢,

[0126] R_8 是氢、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_1-C_6 羧基烷基、 C_1-C_6 氨基烷基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、氨基羰基 C_1-C_6 烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、任选受保护的4~7元杂环基 C_1-C_6 烷基、任选受保护的4~7元杂环烷叉基 C_1-C_6 烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基(该 C_1-C_6 烷氧基 C_1-C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_2-

C₆烯基、C₂-C₆烯氧基羰基C₁-C₆烷基、C₂-C₆炔基、C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷基(该C₇-C₁₄芳烷基任选被独立地选自自由卤素、羟基、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、5~10元杂芳基烷基(该5~10元杂芳基烷基任选被选自自由C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、或者任选被一个或多个卤素取代的5~10元杂芳基C₁-C₆烷氧基C₁-C₆烷基,或者R₈与R₅一起形成C₄-C₈亚烷基,

[0127] R₈和P₈与P₈所键合的氮原子和R₈所键合的碳原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与3~8元饱和碳环或6~10元芳香环稠合,该4~7元饱和杂环任选被一个或多个卤素、羟基、氧代、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、C₁-C₆羟基烷氧基、C₆-C₁₀芳基、5~10元杂芳基C₁-C₆烷氧基、C₇-C₁₄芳烷氧基(该C₇-C₁₄芳烷氧基任选被一个或多个卤素、C₁-C₆烷基、C₁-C₆烷氧基、或C₁-C₆卤代烷氧基取代)、任选被一个或多个卤素取代的4~8元环状氨基、或5~10元杂芳基所取代,或者

[0128] 除了R₈和P₈形成4~7元饱和杂环的情况之外,P₈是氢、C₁-C₆烷基、C₁-C₆羟烷基、C₁-C₆烷氧基C₁-C₆烷基(该C₁-C₆烷氧基C₁-C₆烷基任选被一个或多个卤素、羟基、二C₁-C₆烷基氨基羰基、C₁-C₆烷氧基、或氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)取代)、氨基羰基C₁-C₆烷基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、C₁-C₆氨基烷基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素或C₁-C₆烷基取代)、C₂-C₆烯基、C₂-C₆羟基烯基、氨基羰基C₂-C₆烯基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)、C₁-C₆烷氧基C₂-C₆烯基、任选被一个或多个卤素取代的C₃-C₈环烷基、4~7元杂环基、4~7元杂环基C₁-C₆烷基、任选被一个或多个卤素取代的C₆-C₁₀芳基、C₇-C₁₄芳烷基、5~10元杂芳基、或5~10元杂芳基C₁-C₆烷基,

[0129] R₉是氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆烯基、C₁-C₆烷氧基C₁-C₆烷基(该C₁-C₆烷氧基C₁-C₆烷基任选被氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)、羟基或任选被一个或多个卤素取代的5~10元杂芳基取代)、C₃-C₈环烷基C₁-C₆烷基、或C₇-C₁₄芳烷基(该C₇-C₁₄芳烷基任选被独立地选自自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、以及氰基所组成的组中的一个或多个基团取代),或者

[0130] R₉和Q₉与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0131] R₉和P₉与P₉所键合的氮原子和R₉所键合的碳原子一起形成4~7元饱和杂环,

[0132] 除了R₉和Q₉形成3~8元脂环或4~7元饱和杂环的情况之外,Q₉是氢或C₁-C₆烷基,

[0133] 除了R₉和P₉形成4~7元饱和杂环的情况之外,P₉是氢或C₁-C₆烷基,

[0134] R₁₀是C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆羟烷基、C₁-C₆烷基磺酰基C₁-C₆烷基、C₂-C₆炔基、任选被一个或多个卤素取代的C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基,或者R₁₀和P₁₀、与P₁₀所键合的氮原子和R₁₀所键合的碳原子一起形成4~7元饱和杂环,

[0135] 除了R₁₀和P₁₀形成4~7元饱和杂环的情况之外,P₁₀是氢或C₁-C₆烷基,

[0136] R₁₁是氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆烯基、C₂-C₆炔基、C₁-C₆烷氧基C₁-C₆烷基(该C₁-C₆烷氧基C₁-C₆烷基任选被羟基、或氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)取代)、任选被一个或多个卤素取代的C₇-C₁₄芳烷基、或氨

基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,该环状氨基任选进一步被一个或多个卤素、一个或多个氧代、一个或多个C₁-C₆烷基、或4~7元杂环基所取代),或者

[0137] R₁₁和M₁₁与R₁₁所键合的碳原子和M₁₁所键合的碳原子一起形成3~8元脂环,或者

[0138] R₁₁和P₁₁与P₁₁所键合的氮原子和R₁₁所键合的碳原子一起形成4~7元饱和杂环,

[0139] 除了R₁₁和M₁₁形成3~8元脂环的情况之外,M₁₁是氢,

[0140] 除了R₁₁和P₁₁形成4~7元饱和杂环的情况之外,P₁₁是氢或C₁-C₆烷基。

[0141] [3][1]或[2]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₁₁是-CONR_{11A}R_{11B},R_{11A}和R_{11B}各自独立地表示氢或C₁-C₆烷基,或者R_{11A}和R_{11B}与它们所键合的氮原子一起形成4~8元饱和杂环,该4~8元饱和杂环任选被独立地选自由卤素、氧代、C₁-C₆烷基和4~7元杂环基组成的组中的一个或多个基团取代。

[0142] [4][1]~[3]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₇是-(CH₂)_x-O_y-(CH₂)_{z1}-C₆-C₁₀芳基或-(CH₂)_x-O_y-(CH₂)_{z2}-5~10元杂芳基,它们任选被独立地选自由卤素、C₁-C₄烷基、C₂-C₄炔基、C₁-C₃卤代烷基、C₁-C₃卤代烷氧基、C₁-C₄烷氧基、-CN、C₁-C₃烷基磺酰基、羟基、以及SF₅组成的组中的1~5个基团所取代,

[0143] 其中,以x、y和z1或z2之和为1~4作为条件,

[0144] x为1、2或3,

[0145] y为0或1,

[0146] z1为0、1、2或3,并且

[0147] z2为1、2或3。

[0148] [5][1]~[4]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₄和P₄与P₄所键合的氮原子和R₄所键合的碳原子一起形成4~7元饱和杂环。

[0149] [6][1]~[5]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₈和P₈与P₈所键合的氮原子和R₈所键合的碳原子一起形成4~7元饱和杂环。

[0150] [7][1]~[6]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₈是-(CH₂)_x-O_y-(CH₂)_{z1}-C₆-C₁₀芳基或-(CH₂)_x-O_y-(CH₂)_{z2}-5~10元杂芳基,它们任选被独立地选自由卤素、C₁-C₄烷基、C₂-C₄炔基、C₁-C₃卤代烷基、C₁-C₃卤代烷氧基、C₁-C₄烷氧基、-CN、C₁-C₃烷基磺酰基、羟基、以及SF₅组成的组中的1~5个基团所取代,

[0151] 其中,以x、y和z1或z2之和为1~4作为条件,

[0152] x是1、2或3,

[0153] y为0或1,

[0154] z1为0、1、2或3,并且

[0155] z2是1、2或3。

[0156] [8][1]~[7]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,R₉是C₁-C₆烷基、C₂-C₆烯基、或者是C₇-C₁₄芳烷基,并且Q₉是C₁-C₆烷基,或者

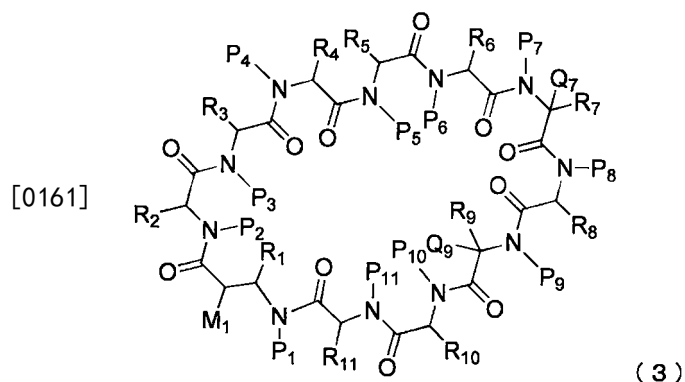
[0157] R₉和Q₉与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0158] [9][1]~[8]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其中,P₁、P₃~P₆以及P₈~P₁₁中的至少3个是烷基。

[0159] [10][1]~[9]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物,其

中, R_2 和 R_3 是 C_1 - C_6 烷基。

[0160] [11][1]中记载的环状肽化合物或其盐、或它们的溶剂合物,所述环状肽化合物由下式(3)表示:



[0162] 式中,

[0163] R_1 是氢或 C_1 - C_6 烷基,

[0164] P_1 是氢或 C_1 - C_6 烷基,

[0165] M_1 是氢,

[0166] R_2 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基 C_1 - C_6 烷基、 C_1 - C_6 氰烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基,

[0167] P_2 是氢,

[0168] R_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基(该 C_1 - C_6 烷氧基 C_1 - C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、氨基羰基 C_1 - C_6 烷基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,或者

[0169] R_3 和 P_3 与 P_3 所键合的氮原子和 R_3 所键合的碳原子一起形成4~7元饱和杂环,

[0170] 除了 R_3 和 P_3 形成4~7元饱和杂环的情况之外, P_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 氨基烷基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、或 C_3 - C_8 环烷基,

[0171] R_4 是氢或 C_1 - C_6 烷基,或者

[0172] R_4 和 P_4 与 P_4 所键合的氮原子和 R_4 所键合的碳原子一起形成4~7元饱和杂环,

[0173] 除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是 C_1 - C_6 烷基或 C_1 - C_6 烷氧基 C_1 - C_6 烷基,

[0174] R_5 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷基磺酰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基(该 C_7 - C_{14} 芳烷基任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷基、 C_1 - C_6 卤代烷氧基、或氰基取代)、任选被一个或多个卤素取代的 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷基,或者 R_5 与 R_8 一起形成 C_4 - C_8 亚烷基,

[0175] P_5 是氢或 C_1 - C_6 烷基,

[0176] R_6 是氢或 C_1-C_6 烷基,或者

[0177] R_6 和 P_6 与 P_6 所键合的氮原子和 R_6 所键合的碳原子一起形成4~7元饱和杂环,

[0178] 除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1-C_6 烷基、或 C_3-C_8 环烷基,

[0179] R_7 是 C_6-C_{10} 芳氧基 C_1-C_6 烷基(该 C_6-C_{10} 芳氧基 C_1-C_6 烷基任选被独立地选自由卤素和 C_1-C_6 卤代烷基组成的组中的一个或多个基团所取代)、 C_7-C_{14} 芳烷基(该 C_7-C_{14} 芳烷基任选被独立地选自由卤素、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、 C_2-C_6 炔基、氰基、 C_1-C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代)、任选被一个或多个卤素取代的 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷基(该5~10元杂芳基 C_1-C_6 烷基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 卤代烷基或 C_1-C_6 烷氧基取代),

[0180] Q_7 是氢或 C_1-C_6 烷基,

[0181] P_7 是氢,

[0182] R_8 是氢、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_1-C_6 羧基烷基、 C_1-C_6 氨基烷基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、 C_1-C_6 氨基羰基 C_1-C_6 烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、任选受保护的4~7元杂环基 C_1-C_6 烷基、任选受保护的4~7元杂环烷叉基 C_1-C_6 烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基(该 C_1-C_6 烷氧基 C_1-C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 烯氧基羰基 C_1-C_6 烷基、 C_2-C_6 炔基、 C_6-C_{10} 芳氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基(该 C_7-C_{14} 芳烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、5~10元杂芳基烷基(该5~10元杂芳基烷基任选被选自由 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、或者任选被一个或多个卤素取代的5~10元杂芳基 C_1-C_6 烷氧基 C_1-C_6 烷基,或者 R_5 与 R_8 一起形成 C_4-C_8 亚烷基,或者

[0183] R_8 和 P_8 与 P_8 所键合的氮原子和 R_8 所键合的碳原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与3~8元饱和碳环或6~10元芳香环稠合,该4~7元饱和杂环任选被一个或多个卤素、羟基、氧代、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、 C_1-C_6 羟基烷氧基、 C_1-C_6 芳基、5~10元杂芳基 C_1-C_6 烷氧基、 C_7-C_{14} 芳烷氧基(该 C_7-C_{14} 芳烷氧基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、或 C_1-C_6 卤代烷氧基取代)、任选被一个或多个卤素取代的4~8元环状氨基、或5~10元杂芳基所取代,或者

[0184] 除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1-C_6 烷基、 C_1-C_6 羟烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基(该 C_1-C_6 烷氧基 C_1-C_6 烷基任选被一个或多个卤素、羟基、二 C_1-C_6 烷基氨基羰基、或 C_1-C_6 烷氧基取代)、氨基羰基 C_1-C_6 烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、 C_1-C_6 氨基烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、 C_2-C_6 烯基、 C_2-C_6 羟基烯基、氨基羰基 C_2-C_6 烯基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)、 C_1-C_6 烷氧基 C_2-C_6 烯基、任选被一个或多个卤素取代的 C_3-C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1-C_6 烷基、任选被一个或多个卤素取代的 C_6-C_{10} 芳基、 C_7-C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1-C_6 烷基,

[0185] R_9 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基(该 C_1 - C_6 烷氧基、 C_1 - C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基(该 C_7 - C_{14} 芳烷基任选被独立地选自自由卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团取代)、或者任选被一个或多个卤素取代的5~10元杂芳基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基,或者

[0186] R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0187] R_9 和 P_9 与 P_9 所键合的氮原子和 R_9 所键合的碳原子一起形成4~7元饱和杂环,

[0188] 除了 R_9 和 Q_9 形成4~7元饱和杂环的情况之外, Q_9 是氢或 C_1 - C_6 烷基,

[0189] 除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1 - C_6 烷基,

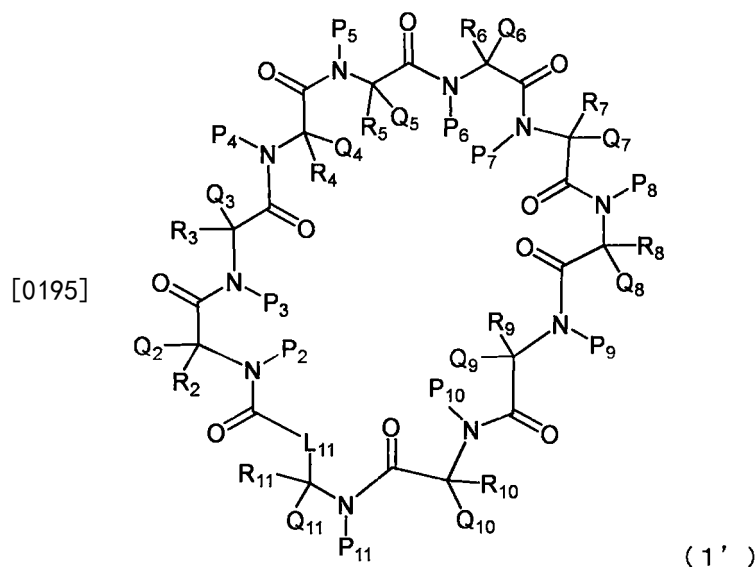
[0190] R_{10} 是 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基、 C_1 - C_6 烷基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,或者

[0191] R_{10} 和 P_{10} 与 P_{10} 所键合的氮原子和 R_{10} 所键合的碳原子一起形成4~7元饱和杂环,

[0192] 除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外, P_{10} 是氢或 C_1 - C_6 烷基,

[0193] R_{11} 是氢、任选被羟基取代的 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、或任选被一个或多个卤素取代的 C_7 - C_{14} 芳烷基,并且 P_{11} 是氢或 C_1 - C_6 烷基。

[0194] [12]由下式(1')表示的环状肽化合物或其盐、或它们的溶剂合物,



[0196] 式中,

[0197] R_2 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基、 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基,其中的每一个任选被独立地选自自由卤素、羟基、氰基和 C_1 - C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

[0198] R_2 和 P_2 与 R_2 所键合的碳原子和 P_2 所键合的氮原子一起形成4~7元饱和杂环,或者

[0199] R_2 和 Q_2 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0200] 除了 R_2 和 P_2 形成4~7元饱和杂环的情况之外, P_2 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基

是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0201] 除了R₂和Q₂形成3~8元脂环或4~7元饱和杂环的情况之外,Q₂为氢或C₁-C₆烷基,

[0202] R₃是氢、C₁-C₆烷基、C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基,其中的每一个任选被独立地选自由羟基和氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,或者

[0203] R₃和P₃与R₃所键合的碳原子和P₃所键合的氮原子一起形成4~7元饱和杂环,或者

[0204] R₃和Q₃与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0205] 除了R₃和P₃形成4~7元饱和杂环的情况之外,P₃是氢、C₁-C₆烷基、C₁-C₆烷氧基C₁-C₆烷基、或C₃-C₈环烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、以及C₁-C₆氨基烷基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,该4~8元环状氨基任选被一个或多个卤素取代)组成的组中的一个或多个基团所取代,

[0206] 除了R₃和Q₃形成3~8元脂环或4~7元饱和杂环的情况之外,Q₃是氢或C₁-C₆烷基,

[0207] R₄是氢或C₁-C₆烷基,或者

[0208] R₄和P₄与R₄所键合的碳原子和P₄所键合的氮原子一起形成4~7元饱和杂环,或者

[0209] R₄和Q₄与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0210] 除了R₄和P₄形成4~7元饱和杂环的情况之外,P₄是氢、C₁-C₆烷基或C₁-C₆烷氧基C₁-C₆烷基,它们中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0211] 除了R₄和Q₄形成3~8元脂环或4~7元饱和杂环的情况之外,Q₄是氢或C₁-C₆烷基,

[0212] R₅是C₁-C₆烷基、C₂-C₆烯基、C₂-C₆炔基、C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、C₇-C₁₄芳烷基、C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷氧基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氰基和C₁-C₆烷基磺酰基所组成的组中的一个或多个基团所取代,或者R₅与R₈一起形成C₄-C₈亚烷基,或者

[0213] R₅和P₅与R₅所键合的碳原子和P₅所键合的氮原子一起形成4~7元饱和杂环,或者

[0214] R₅和Q₅与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0215] 除了R₅和P₅形成4~7元饱和杂环的情况之外,P₅是氢或C₁-C₆烷基,该C₁-C₆烷基任选被独立地选自由卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0216] 除了R₅和Q₅形成3~8元脂环或4~7元饱和杂环的情况之外,Q₅为氢或C₁-C₆烷基,

[0217] R₆是氢或C₁-C₆烷基,或者

[0218] R_6 和 P_6 与 R_6 所键合的碳原子和 P_6 所键合的氮原子一起形成4~7元饱和杂环,或者

[0219] R_6 和 Q_6 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0220] 除了 R_6 和 P_6 形成4~7元饱和杂环的情况之外, P_6 是 C_1 - C_6 烷基或 C_3 - C_8 环烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0221] 除了 R_6 和 Q_6 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_6 为氢或 C_1 - C_6 烷基,

[0222] R_7 是 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基、 C_1 - C_6 烷基磺酰基、以及 SF_5 所组成的组中的一个或多个基团所取代,或者

[0223] R_7 和 P_7 与 R_7 所键合的碳原子和 P_7 所键合的氮原子一起形成4~7元饱和杂环,或者

[0224] R_7 和 Q_7 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0225] 除了 R_7 和 P_7 形成4~7元饱和杂环的情况之外, P_7 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0226] 除了 R_7 和 Q_7 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_7 为氢或 C_1 - C_6 烷基,

[0227] R_8 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_2 - C_6 烯基羰基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、5~10元杂芳基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、羧基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基、氨基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、4~7元杂环烷叉基、受保护的4~7元杂环烷叉基、4~7元杂环基、以及受保护的4~7元杂环基所组成的组中的一个或多个基团所取代,或者 R_8 与 R_5 一起形成 C_4 - C_8 亚烷基,或者

[0228] R_8 和 P_8 与 R_8 所键合的碳原子和 P_8 所键合的氮原子一起形成4~7元饱和杂环,该4~7元饱和杂环任选与饱和碳环或芳香环稠合,该4~7元饱和杂环任选被卤素、氧代、 C_6 - C_{10} 芳基、5~10元杂芳基、4~8元环状氨基(该环状氨基任选被一个或多个卤素取代)、或 OS_8 取代, S_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_7 - C_{14} 芳烷基(该芳烷基任选被一个或多个卤素、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基、或 C_1 - C_6 卤代烷氧基取代)、或5~10元杂芳基 C_1 - C_6 烷基,或者

[0229] R_8 和 Q_8 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0230] 除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_1 - C_6 烷氧基 C_2 - C_6 烯基、 C_3 - C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1 - C_6 烷

基、 C_6-C_{10} 芳基、 C_7-C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0231] 除了 R_8 和 Q_8 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_8 为氢或 C_1-C_6 烷基,

[0232] R_9 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、或5~10元杂芳基 C_1-C_6 烷氧基 C_1-C_6 烷基,其中的每一个任选被独立地选自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)、以及 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代,或者

[0233] R_9 和 P_9 与 R_9 所键合的碳原子和 P_9 所键合的氮原子一起形成4~7元饱和杂环,

[0234] R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0235] 除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0236] 除了 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_9 为氢或 C_1-C_6 烷基,

[0237] R_{10} 是 C_1-C_6 烷基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷基 C_1-C_6 烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、或 C_7-C_{14} 芳烷基,其中的每一个任选被独立地选自由卤素、羟基、以及 C_1-C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者

[0238] R_{10} 和 P_{10} 与 R_{10} 所键合的碳原子和 P_{10} 所键合的氮原子一起形成4~7元饱和杂环,或者

[0239] R_{10} 和 Q_{10} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者

[0240] 除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外, P_{10} 是氢或 C_1-C_6 烷基,其中该 C_1-C_6 烷基任选被独立地选自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0241] 除了 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{10} 为氢或 C_1-C_6 烷基,并且

[0242] L_1 是 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 、或者 $-(CH_2)_nS(O)_2(CH_2)_m-$,其中 n 和 m 各自独立地为1或2,

[0243] R_{11} 是氢、 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、或氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基),其中的每一个任选被独立地选自由卤素、氧代、羟基、 C_1-C_6 烷基、4~7元杂环基、氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)、以及 C_1-C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者 R_{11} 是包含1~4个氨基酸残基的肽链,或者

- [0244] R_{11} 和 P_{11} 与 R_{11} 所键合的碳原子和 P_{11} 所键合的氮原子一起形成4~7元饱和杂环,或者
- [0245] R_{11} 和 Q_{11} 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环,或者
- [0246] R_{11} 和 M_{11} 与 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成3~8元脂环,
- [0247] 除了 R_{11} 和 P_{11} 形成4~7元饱和杂环的情况之外, P_{11} 是氢或 C_1-C_6 烷基,其中该 C_1-C_6 烷基任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,
- [0248] 除了 R_{11} 和 Q_{11} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{11} 为氢或 C_1-C_6 烷基,
- [0249] 除了 R_{11} 和 M_{11} 形成3~8元脂环的情况之外, M_{11} 是氢,
- [0250] $P_2 \sim P_{11}$ 中的至少3个并非是氢。
- [0251] [13][1]或[12]记载的环状肽化合物或其盐、或它们的溶剂合物,其中,所述环状肽化合物选自表24记载的环状肽化合物。
- [0252] [14]一种药物组合物,其含有[1]~[13]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物。
- [0253] [15]表5或表6记载的氨基酸、或其盐或它们的溶剂合物。
- [0254] [16]一种Kras与SOS的键合抑制剂,其含有有效量的[1]~[13]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物。
- [0255] [17]一种用于治疗或预防对象的癌症的药物组合物,该药物组合物包含有效量的[1]~[13]中的任意一项记载的环状肽化合物或其盐、或它们的溶剂合物。
- [0256] [18][17]记载的药物组合物,其中,癌是胰腺癌。
- [0257] [19][17]~[18]中的任意一项记载的药物组合物,其对象是人。
- [0258] 发明效果
- [0259] 根据本发明,可以提供具有抗肿瘤作用的新型环状肽化合物、用于制备该环状肽化合物的非天然氨基酸、以及它们的制备方法。

具体实施方式

- [0260] (缩写)
- [0261] 以下记载本发明中使用的缩写。
- [0262] AA:乙酸铵
- [0263] Alloc基:烯丙氧基羰基
- [0264] Boc基:叔丁氧基羰基
- [0265] Cbz基:苄氧基羰基
- [0266] CSA: (+) -10-樟脑磺酸
- [0267] DBU: 1,8-二氮杂双环[5.4.0]-7-十一烯
- [0268] DCC: N,N'-二环己基碳二亚胺
- [0269] DCM: 二氯甲烷
- [0270] DCE: 1,2-二氯乙烷

- [0271] DEAD:偶氮二甲酸二乙酯
[0272] DMA:二甲基乙酰胺
[0273] DMF:N,N-二甲基甲酰胺
[0274] DIAD:偶氮二甲酸二异丙酯
[0275] DIC:N,N'-二异丙基碳二亚胺
[0276] DIPEA:N,N-二异丙基乙胺
[0277] DMAP:N,N-二甲基-4-氨基吡啶
[0278] t-Bu基:叔丁基
[0279] dtbbpy:4,4'-二叔丁基-2,2'-联吡啶
[0280] EDTA:乙二胺四乙酸
[0281] FA:甲酸
[0282] Fmoc基:9-芴基甲氧基羰基
[0283] NMP:N-甲基-2-吡咯烷酮
[0284] TBME:甲基叔丁基醚
[0285] TES:三乙基硅烷
[0286] TFA:三氟乙酸
[0287] TFE:2,2,2-三氟乙醇
[0288] THF:四氢呋喃
[0289] THP:四氢吡喃基
[0290] TMSCl:三甲基氯硅烷
[0291] HFIP:1,1,1,3,3,3-六氟异丙醇
[0292] HOAt:1-羟基-7-氮杂苯并三唑
[0293] HOBt:1-羟基苯并三唑
[0294] HOOBt:3,4-二氢-3-羟基-4-氧代-1,2,3-苯并三嗪
[0295] IPAC:乙酸异丙酯
[0296] oxyma:氰基(羟基亚氨基)乙酸乙酯
[0297] PPTS:对甲苯磺酸吡啶鎓
[0298] Pis:2-苯基异丙基
[0299] WSCI • HCl:1-乙基-3-(3-二甲基氨基丙基)碳二亚胺盐酸盐
[0300] TIPS:三异丙基硅烷
[0301] TfOH:三氟甲磺酸
[0302] HATU:O-(7-氮杂-1H-苯并三唑-1-基)-N,N,N',N'-四甲基脒六氟磷酸酯
[0303] DMSO:二甲基亚砷
[0304] Fmoc-Cl:氯甲酸(9H-芴-9-基)甲酯
[0305] Fmoc-OSu:9-芴基甲基N-琥珀酰亚胺基碳酸酯
[0306] Ns基:邻硝基苯磺酰基
[0307] Trt基:三苯甲基
[0308] Troc基:2,2,2-三氯乙氧基羰基
[0309] (官能团等的定义)

[0310] 本说明书中作为“卤素原子”可举出F、Cl、Br或I。

[0311] 本说明书中的“烷基”是指从脂肪族烃中除去任意一个氢原子而衍生的一价基团，其在骨架中不含有杂原子（指碳和氢原子以外的原子）或不饱和碳-碳键，具有烃基(hydrocarbyl)或碳氢化合物基团(hydrocarbongroup)结构的子集。烷基不仅包括直链状烷基还包括支链状烷基。作为烷基具体而言，可以举出碳原子数为1~20 ($C_1 \sim C_{20}$ ，以下“ $C_p \sim C_q$ ”是指碳原子数为 $p \sim q$ 个)的烷基，优选 $C_1 \sim C_{10}$ 的烷基，更优选 $C_1 \sim C_6$ 的烷基。作为烷基，具体而言，可以举出甲基、乙基、正丙基、异丙基、正丁基、仲丁基、叔丁基、异丁基(2-甲基丙基)、正戊基、仲戊基(1-甲基丁基)、叔戊基(1,1-二甲基丙基)、新戊基(2,2-二甲基丙基)、异戊基(3-甲基丁基)、3-戊基(1-乙基丙基)、1,2-二甲基丙基、2-甲基丁基、正己基、1,1,2-三甲基丙基、1,2,2-三甲基丙基、1,1,2,2-四甲基丙基、1,1-二甲基丁基、1,2-二甲基丁基、1,3-二甲基丁基、2,2-二甲基丁基、2,3-二甲基丁基、3,3-二甲基丁基、1-乙基丁基、2-乙基丁基等。

[0312] 本说明书中的“烯基”是指具有至少一个双键(两个相邻的 sp^2 碳原子)的一价基团。根据双键和取代基(存在的情况下)的配置，双键的几何学形态可以是entgegen(E)或zusammen(Z)、顺式或反式配置。烯基不仅包括直链状烯基还包括支链状烯基。作为烯基可优选举出 $C_2 \sim C_{10}$ 烯基，更优选举出 $C_2 \sim C_6$ 烯基，具体而言可以举出例如乙烯基、烯丙基、1-丙烯基、2-丙烯基、1-丁烯基、2-丁烯基(包括顺式、反式)、3-丁烯基、戊烯基、3-甲基-2-丁烯基、己烯基等。

[0313] 本说明书中的“炔基”是指具有至少一个三键(两个相邻的 sp 碳原子)的一价基团。炔基不仅包括直链状炔基还包括支链状炔基。作为炔基可优选举出 $C_2 \sim C_{10}$ 炔基，更优选举出 $C_2 \sim C_6$ 炔基，具体而言可以举出例如乙炔基、1-丙炔基、炔丙基、3-丁炔基、戊炔基、己炔基、3-苯基-2-丙炔基、3-(2'-氟苯基)-2-丙炔基、2-羟基-2-丙炔基、3-(3-氟苯基)-2-丙炔基、3-甲基-(5-苯基)-4-戊炔基等。

[0314] 本说明书中的“环烷基”是指饱和或部分饱和的环状的1价脂肪族烃基，包括单环、双环、螺环。作为环烷基可优选举出 $C_3 \sim C_8$ 环烷基，具体而言可以举出例如环丙基、环丁基、环戊基、环己基、环庚基、环辛基、双环[2.2.1]庚基、螺[3.3]庚基等。

[0315] 本说明书中的“芳基”是指一价芳香族烃环，可优选举出 $C_6 \sim C_{10}$ 芳基。作为芳基具体而言可以举出苯基、萘基(例如，1-萘基、2-萘基)等。

[0316] 本说明书中的“杂环基”是指除碳原子外还含有1~5个杂原子的、非芳香族的环状的1价基团。杂环基可以在环中具有双键和/或三键，环中的碳原子可以被氧化而形成羰基，杂环基可以是单环也可以是稠环。构成环的原子数优选为4~10(4~10元杂环基)，更优选为4~7(4~7元杂环基)。作为杂环基具体而言可以举出例如氮杂环丁烷基、环氧乙烷基、氧杂环丁烷基、氮杂环丁烷基、二氢呋喃基、四氢呋喃基、二氢吡喃基、四氢吡喃基、四氢吡啶基、四氢嘧啶基、吗啉基、硫代吗啉基、吡咯烷基、哌啶基、哌嗪基、吡唑烷基、咪唑啉基、咪唑烷基、噁唑烷基、异噁唑烷基、噻唑烷基、异噻唑烷基、1,2-噻嗪烷基、噻二唑烷基、氮杂环丁烷基、噁唑烷酮基、苯并二噁烷基、苯并噁唑基、二氧戊环基、二噁烷基、四氢吡咯并[1,2-c]咪唑基、硫杂环丁基(thietanyl)、3,6-二氮杂双环[3.1.1]庚基、2,5-二氮杂双环[2.2.1]庚基、3-氧杂-8-氮杂双环[3.2.1]辛基、磺内酰胺、2-氧杂螺[3.3]庚基等。

[0317] 本说明书中的“受保护的杂环基”是指上述定义的“杂环基”中所含的一个或多个

官能团例如氨基被任意的保护基所保护的基团,可优选举出受保护的4~7元杂环基。作为保护基具体而言可以举出Boc、Fmoc、Cbz、Troc、Alloc等,作为受保护的杂环基具体而言可以举出例如Boc保护的氮杂环丁烷等。

[0318] 本说明书中的“杂环烷叉基”是指从上述定义的“杂环基”的1个碳原子除去2个氢原子而产生的、自由价形成双键的一部分的二价基团。作为杂环烷叉基可优选举出4~7元杂环烷叉基,具体而言可以举出例如四氢吡喃-4-叉基、氮杂环丁烷-3-叉基等。

[0319] 本说明书中的“受保护的杂环烷叉基”是指上述定义的“杂环烷叉基”中所含的一个或多个官能团例如氨基被任意的保护基所保护的基团,可优选举出受保护的4~7元杂环烷叉基。作为保护基具体而言可以举出Boc、Fmoc、Cbz、Troc、Alloc等,作为受保护的杂环烷叉基具体而言可以举出例如Boc保护的氮杂环丁烷-3-叉基等。

[0320] 本说明书中的“杂芳基”是指除碳原子之外还含有1~5个杂原子的芳香性的环状1价基团。环可以是单环,也可以是与其它环形成的稠环,还可以被部分饱和。构成环的原子数量优选为5~10(5~10元杂芳基),更优选为5~7(5~7元杂芳基)。作为杂芳基具体而言可以举出例如呋喃基、噻吩基、吡咯基、咪唑基、吡唑基、噻唑基、异噻唑基、噁唑基、异噁唑基、噁二唑基、噻二唑基、三唑基、四唑基、吡啶基、嘧啶基、哒嗪基、吡嗪基、三嗪基、苯并呋喃基、苯并噻吩基、苯并噻二唑基、苯并噻唑基、苯并噁唑基、苯并噁二唑基、苯并咪唑基、吲哚基、异吲哚基、吲唑基、喹啉基、异喹啉基、噌啉基、喹唑啉基、喹喔啉基、苯并二噁唑基、中氮茛基(indoliziny)和咪唑并吡啶基等。

[0321] 本说明书中的“烷氧基”是指键合有上述定义的“烷基”的氧基,可优选举出 C_1 - C_6 烷氧基。作为烷氧基具体而言可以举出例如甲氧基、乙氧基、1-丙氧基、2-丙氧基、正丁氧基、异丁氧基、仲丁氧基、叔丁氧基、戊氧基、3-甲基丁氧基等。

[0322] 本说明书中的“烯氧基”是指键合有上述定义的“烯基”的氧基,可优选举出 C_2 - C_6 烯氧基。作为烯氧基具体而言可以举出例如乙烯氧基、烯丙氧基、1-丙烯氧基、2-丙烯氧基、1-丁烯氧基、2-丁烯氧基(包括顺式、反式)、3-丁烯氧基、戊烯氧基、己烯氧基等。

[0323] 本说明书中的“环烷氧基”是指键合有上述定义的“环烷基”的氧基,可优选举出 C_3 - C_8 环烷氧基。作为环烷氧基具体而言可以举出例如环丙氧基、环丁氧基、环戊氧基等。

[0324] 本说明书中的“芳氧基”是指键合有上述定义的“芳基”的氧基,可优选举出 C_6 - C_{10} 芳氧基。作为芳氧基具体而言可以举出例如苯氧基、1-萘氧基、2-萘氧基等。

[0325] 本说明书中的“氨基”在狭义上是指 $-NH_2$,在广义上是指 $-NRR'$,其中R和R'独立地选自氢、烷基、烯基、炔基、环烷基、杂环基、芳基、或杂芳基,或者R和R'与它们所键合的氮原子一起形成环。作为氨基可优选举出 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、4~8元环状氨基等。

[0326] 本说明书中的“单烷基氨基”是指上述定义的“氨基”中R是氢并且R'是上述定义的“烷基”的基团,可优选举出单 C_1 - C_6 烷基氨基。作为单烷基氨基具体而言可以举出例如甲氨基、乙氨基、正丙氨基、异丙氨基、正丁氨基、仲丁氨基、叔丁氨基等。

[0327] 本说明书中的“二烷基氨基”是指上述定义的“氨基”中R和R'独立地表示上述定义的“烷基”的基团,可优选举出二 C_1 - C_6 烷基氨基。作为二烷基氨基具体而言可以举出例如二甲氨基、二乙氨基等。

[0328] 本说明书中的“环状氨基”是指上述定义的“氨基”中R和R'与它们所键合的氮原子

一起形成了环的基团,可优选举出4~8元环状氨基。作为环状氨基具体而言可以举出例如1-氮杂环丁烷基、1-吡咯烷基、1-哌啶基、1-哌嗪基、4-吗啉基、3-噁唑烷基、1,1-二氧硫代吗啉基-4-基、3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基等。

[0329] 本说明书中的“受保护的氨基”是指被任意的保护基保护的氨基。作为受保护的氨基具体而言可以举出例如被Boc、Fmoc、Cbz、Troc、Alloc等保护基保护的氨基。

[0330] 本说明书中的“氨基羰基”是指键合有上述定义的“氨基”的羰基,可优选举出-CONH₂、单C₁-C₆烷基氨基羰基、二C₁-C₆烷基氨基羰基、4~8元环状氨基羰基。作为氨基羰基具体而言可以举出例如-CONH₂、二甲基氨基羰基、1-氮杂环丁烷基羰基、1-吡咯烷基羰基、1-哌啶基羰基、1-哌嗪基羰基、4-吗啉基羰基、3-噁唑烷基羰基、1,1-二氧硫代吗啉基-4-基羰基、3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基羰基等。

[0331] 本说明书中的“烯氧基羰基”是指键合有上述定义的“烯氧基”的羰基,可优选举出C₂~C₆烯氧基羰基。作为烯氧基羰基具体而言可以举出例如乙烯氧基羰基、烯丙氧基羰基、1-丙烯氧基羰基、2-丙烯氧基羰基、1-丁烯氧基羰基、2-丁烯氧基羰基(包括顺式、反式)、3-丁烯氧基羰基、戊烯氧基羰基、己烯氧基羰基等。

[0332] 本说明书中的“烷基磺酰基”是指键合有上述定义的“烷基”的磺酰基,可优选举出C₁-C₆烷基磺酰基。作为烷基磺酰基具体而言可以举出例如甲磺酰基等。

[0333] 本说明书中的“羟烷基”是指上述定义的“烷基”中的一个或多个氢被羟基取代的基团,优选C₁-C₆羟烷基。作为羟烷基具体而言可以举出例如羟甲基、1-羟乙基、2-羟乙基、2-羟基-2-甲基丙基、5-羟戊基等。

[0334] 本说明书中的“卤代烷基”是指上述定义的“烷基”中的一个或多个氢被卤素取代的基团,优选C₁-C₆卤代烷基,更优选C₁-C₆氟烷基。作为卤代烷基具体而言可以举出例如二氟甲基、三氟甲基、2,2-二氟乙基、2,2,2-三氟乙基、3,3-二氟丙基、4,4-二氟丁基、5,5-二氟戊基等。

[0335] 本说明书中的“氰烷基”是指上述定义的“烷基”中的一个或多个氢被氰基取代的基团,优选C₁-C₆氰烷基。作为氰烷基具体而言可以举出例如氰基甲基、2-氰基乙基等。

[0336] 本说明书中的“氨基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“氨基”取代的基团,优选C₁-C₆氨基烷基。作为氨基烷基具体而言可以举出例如1-吡啶基甲基、2-(1-哌啶基)乙基、3-(1-哌啶基)丙基、4-氨基丁基等。

[0337] 本说明书中的“羧基烷基”是指上述定义的“烷基”中的一个或多个氢被羧基取代的基团,优选C₂-C₆羧基烷基。作为羧基烷基具体而言可以举出例如羧甲基等。

[0338] 本说明书中的“烯氧基羰基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“烯氧基羰基”取代的基团,优选C₂-C₆烯氧基羰基C₁-C₆烷基,更优选C₂-C₆烯氧基羰基C₁-C₂烷基。作为烯氧基羰基烷基具体而言可以举出例如烯丙氧基羰基甲基、2-(烯丙氧基羰基)乙基等。

[0339] 本说明书中的“烷氧基烷基”是指上述定义的“烷基”中的一个或多个氢被上述“烷氧基”取代的基团,优选C₁-C₆烷氧基C₁-C₆烷基,更优选C₁-C₆烷氧基C₁-C₂烷基。作为烷氧基烷基具体而言可以举出例如甲氧基甲基、乙氧基甲基、1-丙氧基甲基、2-丙氧基甲基、正丁氧基甲基、异丁氧基甲基、仲丁氧基甲基、叔丁氧基甲基、戊氧基甲基、3-甲基丁氧基甲基、1-甲氧基乙基、2-甲氧基乙基、2-乙氧基乙基等。

[0340] 本说明书中的“环烷基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“环烷基”取代的基团,优选 C_3-C_8 环烷基 C_1-C_6 烷基,更优选 C_3-C_6 环烷基 C_1-C_2 烷基。作为环烷基烷基具体而言可以举出例如环丙基甲基、环丁基甲基、环戊基甲基、环己基甲基等。

[0341] 本说明书中的“环烷氧基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“环烷氧基”取代的基团。优选 C_3-C_8 环烷氧基 C_1-C_6 烷基,更优选 C_3-C_6 环烷氧基 C_1-C_2 烷基。作为环烷氧基烷基具体而言可以举出例如环丙氧基甲基、环丁氧基甲基等。

[0342] 本说明书中的“杂环基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“杂环基”取代的基团,优选4~7元杂环基 C_1-C_6 烷基,更优选4~7元杂环基 C_1-C_2 烷基。作为杂环基烷基具体而言可以举出例如2-(四氢-2H-吡喃-4-基)乙基、2-(氮杂环丁烷-3-基)乙基等。

[0343] 本说明书中的“烷基磺酰基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“烷基磺酰基”取代的基团,优选 C_1-C_6 烷基磺酰基 C_1-C_6 烷基,更优选 C_1-C_6 烷基磺酰基 C_1-C_2 烷基。作为烷基磺酰基烷基具体而言可以举出例如甲磺酰基甲基、2-(甲磺酰基)乙基等。

[0344] 本说明书中的“氨基羰基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“氨基羰基”取代的基团,优选氨基羰基 C_1-C_6 烷基,更优选氨基羰基 C_1-C_4 烷基。作为氨基羰基烷基具体而言可以举出例如甲基氨基羰基甲基、二甲基氨基羰基甲基、叔丁基氨基羰基甲基、1-氮杂环丁烷基羰基甲基、1-吡咯烷基羰基甲基、1-哌啶基羰基甲基、4-吗啉基羰基甲基、2-(甲基氨基羰基)乙基、2-(二甲基氨基羰基)乙基、2-(1-氮杂环丁烷基羰基)乙基、2-(1-吡咯烷基羰基)乙基、2-(4-吗啉基羰基)乙基、3-(二甲基氨基羰基)丙基、4-(二甲基氨基羰基)丁基等。

[0345] 本说明书中的“芳氧基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“芳氧基”取代的基团,优选 C_6-C_{10} 芳氧基 C_1-C_6 烷基,更优选 C_6-C_{10} 芳氧基 C_1-C_2 烷基。作为芳氧基烷基具体而言可以举出例如苯氧基甲基、2-苯氧基乙基等。

[0346] 本说明书中“芳烷基(芳基烷基)”是指上述定义的“烷基”中的一个或多个氢原子被上述定义的“芳基”取代的基团,优选 C_7-C_{14} 芳烷基,更优选 C_7-C_{10} 芳烷基。作为芳烷基具体而言可以举出例如苄基、苄乙基、3-苄基丙基等。

[0347] 本说明书中“芳烷氧基”是指键合有上述定义的“芳烷基”的氧基,优选 C_7-C_{14} 芳烷氧基,更优选 C_7-C_{10} 芳烷氧基。作为芳烷氧基具体而言可以举出苄氧基、苄乙氧基、3-苄基丙氧基等。

[0348] 本说明书中的“芳烷氧基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“芳烷氧基”取代的基团,优选 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基,更优选 C_7-C_{14} 芳烷氧基 C_1-C_2 烷基。作为芳烷氧基烷基具体而言可以举出例如苄氧基甲基、1-(苄氧基)乙基等。

[0349] 本说明书中“杂芳基烷基”是指上述“烷基”中的一个或多个氢原子被上述定义的“杂芳基”取代的基团,优选5~10元杂芳基 C_1-C_6 烷基,更优选5~10元杂芳基 C_1-C_2 烷基。作为杂芳基烷基具体而言可以举出例如3-噻吩基甲基、4-噻唑基甲基、2-吡啶基甲基、3-吡啶基甲基、4-吡啶基甲基、2-(2-吡啶基)乙基、2-(3-吡啶基)乙基、2-(4-吡啶基)乙基、2-(6-喹啉基)乙基、2-(7-喹啉基)乙基、2-(6-吲哚基)乙基、2-(5-吲哚基)乙基、2-(5-苯并呋喃基)乙基等。

[0350] 本说明书中“杂芳基烷氧基”是指键合有上述定义的“杂芳基烷基”的氧基,优选5~10元杂芳基 $C_1\sim C_6$ 烷氧基,更优选5~10元杂芳基 $C_1\sim C_2$ 烷氧基。作为杂芳基烷氧基具体而言可以举出例如3-噻吩基甲氧基、3-吡啶基甲氧基等。

[0351] 本说明书中的“杂芳基烷氧基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“杂芳基烷氧基”取代的基团,优选5~10元杂芳基 $C_1\sim C_6$ 烷氧基 $C_1\sim C_6$ 烷基,更优选5~10元杂芳基 $C_1\sim C_2$ 烷氧基 $C_1\sim C_2$ 烷基。作为杂芳基烷氧基烷基具体而言可以举出3-吡啶基甲氧基甲基等。

[0352] 本说明书中的“杂环烷叉基烷基”是指上述定义的“烷基”中的一个或多个氢被上述定义的“杂环烷叉基”取代的基团,优选4~7元杂环烷叉基 $C_1\sim C_6$ 烷基,更优选4~7元杂环烷叉基 $C_1\sim C_2$ 烷基。作为杂环烷叉基烷基具体而言可以举出例如四氢-4H-吡喃-4-叉基甲基、氮杂环丁烷-3-叉基甲基等。

[0353] 本说明书中的“烷氧基烯基”是指上述定义的“烯基”中的一个或多个氢被上述定义的“烷氧基”取代的基团,优选 $C_1\sim C_6$ 烷氧基 $C_2\sim C_6$ 烯基。作为烷氧基烯基具体而言可以举出例如(E)-4-甲氧基丁-2-烯-1-基等。

[0354] 本说明书中的“氨基羰基烯基”是指上述定义的“烯基”的一个或多个氢被上述定义的“氨基羰基”取代的基团,优选氨基羰基 $C_2\sim C_6$ 烯基。作为氨基羰基烯基具体而言可以举出例如(E)-3-(二甲基氨基羰基羰基)-丙-2-烯-1-基等。

[0355] 本说明书中的“卤代烷氧基”是指上述定义的“烷氧基”的一个或多个氢被卤素取代的基团,优选 $C_1\sim C_6$ 卤代烷氧基。作为卤代烷氧基具体而言可以举出例如二氟甲氧基、三氟甲氧基、2,2-二氟乙氧基、2,2,2-三氟乙氧基等。

[0356] 本说明书中“亚烷基”是指从上述“烷基”进一步除去任意1个氢原子而衍生的二价基团,优选 $C_4\sim C_8$ 亚烷基。作为亚烷基具体而言可以举出例如 $-\text{CH}_2-$ 、 $-(\text{CH}_2)_2-$ 、 $-(\text{CH}_2)_3-$ 、 $-\text{CH}(\text{CH}_3)\text{CH}_2-$ 、 $-\text{C}(\text{CH}_3)_2-$ 、 $-(\text{CH}_2)_4-$ 、 $-\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2-$ 、 $-\text{C}(\text{CH}_3)_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2-$ 、 $-\text{CH}_2\text{C}(\text{CH}_3)_2-$ 、 $-\text{CH}_2\text{CH}_2\text{CH}(\text{CH}_3)-$ 、 $-(\text{CH}_2)_5-$ 、 $-(\text{CH}_2)_6-$ 、 $-(\text{CH}_2)_7-$ 、 $-(\text{CH}_2)_8-$ 等。

[0357] 本说明书中的“脂环”是指非芳香族烃环。脂环可以在环中具有不饱和键,也可以是具有2个以上环的多环性的环。另外,构成环的碳原子可以被氧化形成羰基。作为脂环可优选举出3~8元脂环,具体而言可以举出例如环丙烷环、环丁烷环、环戊烷环、环己烷环、环庚烷环、环辛烷环、双环[2.2.1]庚烷环等。

[0358] 本说明书中的“饱和杂环”是指除碳原子外还含有1~5个杂原子并且在环中不含双键和/或三键的非芳香族杂环。饱和杂环可以是单环,也可以与其它环例如苯环等芳香环形成稠环。在饱和杂环形成稠环时,作为饱和杂环可优选举出4~7元饱和杂环,具体而言可以举出例如氮杂环丁环、氧杂环丁环、四氢呋喃环、四氢吡喃环、吗啉环、硫代吗啉环、吡咯烷环、4-氧代吡咯烷环、哌啶环、4-氧代哌啶环、哌嗪环、吡唑烷环、咪唑烷环、噁唑烷环、异噁唑烷环、噻唑烷环、异噻唑烷环、噻二唑烷环、噁唑烷酮环、二氧戊环环、二噁烷环、硫杂环丁烷环、八氢吡啶环、吡啶啉环等。

[0359] 本说明书中“肽链”是指1、2、3、4或更多个天然氨基酸和/或非天然氨基酸通过酰胺键和/或酯键连接的肽链。作为肽链优选为包含1~4个氨基酸残基的肽链,更优选为由1~4个氨基酸残基构成的肽链。

[0360] 本说明书中“任选被取代”是指某个基团可以被任意取代基取代。

[0361] 本说明书中“任选受保护的”是指某个基团可以被任意保护基保护。

[0362] 本说明书中“一个或多个”是指一个或两个以上的数目。当“一个或多个”使用于与某个基团的取代基相关的语境中时,该用语是指一个到该基团所允许的取代基的最大数目为止的数字。作为“一个或多个”具体而言可以举出例如1、2、3、4、5、6、7、8、9、10和/或更大的数目。

[0363] 本发明的化合物可以是其盐,优选其化学或药学上可容许的盐。另外本发明的化合物或其盐可以是它们的溶剂合物,优选其化学或药学上可容许的溶剂合物。本发明的化合物的盐包括例如盐酸盐,氢溴酸盐,氢碘酸盐,磷酸盐,膦酸盐,硫酸盐,甲磺酸盐、对甲苯磺酸盐等磺酸盐,乙酸盐、柠檬酸盐、苹果酸盐、酒石酸盐、琥珀酸盐、水杨酸盐等羧酸盐,或者,钠盐、钾盐等碱金属盐,镁盐、钙盐等碱土金属盐,铵盐、烷基铵盐、二烷基铵盐、三烷基铵盐、四烷基铵盐等铵盐。这些盐是通过例如使该化合物与可用于制备药物的酸或碱接触而制备的。在本发明中,化合物的溶剂合物是指在溶液中溶质分子强烈地吸引溶剂分子而形成分子集团的现象,如果溶剂为水,则称为水合物。作为本发明化合物的溶剂合物优选水合物,作为这样的水合物,具体而言可以举出一水合物~十水合物,优选一水合物~五水合物,更优选一水合物~三水合物。本发明化合物的溶剂合物不仅包括与水、醇(例如,甲醇、乙醇、1-丙醇、2-丙醇等)、二甲基甲酰胺等的单一溶剂形成的溶剂合物,还包括与多种溶剂形成的溶剂合物。

[0364] 本说明书中的“氨基酸”包括天然和非天然氨基酸。本说明书中的“天然氨基酸”是指Gly、Ala、Ser、Thr、Val、Leu、Ile、Phe、Tyr、Trp、His、Glu、Asp、Gln、Asn、Cys、Met、Lys、Arg、Pro。对于非天然氨基酸没有特别的限定,可以举出 β -氨基酸、 γ -氨基酸、D型氨基酸、N-取代氨基酸、 α,α -二取代氨基酸、侧链与天然不同的氨基酸、羟基羧酸等。作为本说明书中的氨基酸,可以具有任意的立体构型。对于氨基酸侧链的选择没有特别的限定,除了氢原子以外,还可以自由地选自例如烷基、烯基、炔基、芳基、杂芳基、芳烷基、环烷基,这些基团中的不相邻的一个或两个亚甲基任选被氧原子、羰基(-CO-)或磺酰基(-SO₂-)取代。各个基团可以具有取代基,并且对这些取代基也没有限制。例如,可以从包含卤素原子、O原子、S原子、N原子、B原子、Si原子或P原子的任意的取代基中独立地、自由地选择一个或两个。即,可以举出任选取代的烷基、烯基、炔基、芳基、杂芳基、芳烷基、环烷基等。在非限定性的一个实施方式中,本说明书中的氨基酸可以是在同一分子内具有羧基和氨基的化合物(在这种情况下,脯氨酸、羟脯氨酸等亚氨基酸也包括在氨基酸中)。

[0365] 氨基酸的主链氨基可以是未取代的(NH₂基团),也可以是被取代的(即-NHR基团,其中R表示可以具有取代基的烷基、烯基、炔基、芳基、杂芳基、芳烷基、环烷基,这些基团中的一个或两个不相邻的亚甲基也可以被氧原子、羰基(-CO-)或磺酰基(-SO₂-)取代,并且也可以如脯氨酸那样与N原子键合的碳链和 α 位的碳原子形成环)。所述R的取代基可选择与上述氨基酸侧链中的取代基相同的取代基。在主链氨基被取代时,所述R包括在本说明书的“氨基酸的侧链”中。在本说明书中,将像这样的主链氨基被取代的氨基酸称为“N-取代氨基酸”。作为本说明书中的“N-取代氨基酸”可优选举出N-烷基氨基酸、N-C₁-C₆烷基氨基酸、N-C₁-C₄烷基氨基酸、N-甲基氨基酸,但不限于这些。

[0366] 本说明书中的构成肽化合物的“氨基酸”包含对应于每个氨基酸的所有同位素。“氨基酸”的同位素是指至少一个原子被原子序数(质子数)相同但质量数(质子和中子的数

量之和)不同的原子所取代的物质。作为在构成本发明的肽化合物的“氨基酸”中包含的同位素的例子有氢原子、碳原子、氮原子、氧原子、磷原子、硫原子、氟原子、氯原子等,分别包括 ^2H 、 ^3H 、 ^{13}C 、 ^{14}C 、 ^{15}N 、 ^{17}O 、 ^{18}O 、 ^{31}P 、 ^{32}P 、 ^{35}S 、 ^{18}F 、 ^{36}Cl 等。

[0367] 作为本说明书中的含有卤素原子的取代基,可以列举取代基中具有卤素的烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基等,更具体而言可以列举氟烷基、二氟烷基、三氟烷基等。

[0368] 作为含有O原子的取代基,可以举出羟基(-OH)、氧基(-OR)、羰基(-C=O-R)、羧基(-CO₂H)、氧基羰基(-C=O-OR)、羧基氧基(-O-C=O-R)、硫基羰基(-C=O-SR)、羧基硫基(-S-C=O-R)、氨基羰基(-C=O-NHR)、羧基氨基(-NH-C=O-R)、氧基羰基氨基(-NH-C=O-OR)、磺酰基氨基(-NH-SO₂-R)、氨基磺酰基(-SO₂-NHR)、氨基磺酰基氨基(-NH-SO₂-NHR)、硫代羧基(-C=O-SH)、羧基羰基(-C=O-CO₂H)等。

[0369] 作为氧基(-OR)的例子,可以举出烷氧基、环烷氧基、烯氧基、炔氧基、芳氧基、杂芳氧基、芳烷氧基等。作为烷氧基,优选C₁-C₄烷氧基、C₁-C₂烷氧基,更优选其中的甲氧基或乙氧基。

[0370] 作为羰基(-C=O-R)的例子,可以举出甲酰基(-C=O-H)、烷基羰基、环烷基羰基、烯基羰基、炔基羰基、芳基羰基、杂芳基羰基、芳烷基羰基等。

[0371] 作为氧基羰基(-C=O-OR)的例子,可以举出烷氧基羰基、环烷氧基羰基、烯氧基羰基、炔氧基羰基、芳氧基羰基、杂芳氧基羰基、芳烷氧基羰基等。

[0372] 作为羧基氧基(-O-C=O-R)的例子,可以举出烷基羰基氧基、环烷基羰基氧基、烯基羰基氧基、炔基羰基氧基、芳基羰基氧基、杂芳基羰基氧基、芳烷基羰基氧基等。

[0373] 作为硫基羰基(-C=O-SR)的例子,可以举出烷基硫基羰基、环烷基硫基羰基、烯基硫基羰基、炔基硫基羰基、芳基硫基羰基、杂芳基硫基羰基、芳烷基硫基羰基等。

[0374] 作为羧基硫基(-S-C=O-R)的例子,可以举出烷基羰基硫基、环烷基羰基硫基、烯基羰基硫基、炔基羰基硫基、芳基羰基硫基、杂芳基羰基硫基、芳烷基羰基硫基等。

[0375] 作为氨基羰基(-C=O-NHR)的例子,可以举出烷基氨基羰基(可以列举例如C₁-C₆或C₁-C₄烷基氨基羰基,特别是乙基氨基羰基、甲基氨基羰基等)、环烷基氨基羰基、烯基氨基羰基、炔基氨基羰基、芳基氨基羰基、杂芳基氨基羰基、芳烷基氨基羰基等。除了这些之外,可以举出与-C=O-NHR中的N原子键合的H原子进一步被烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基取代的化合物。

[0376] 作为羧基氨基(-NH-C=O-R)的例子,可以举出烷基羰基氨基、环烷基羰基氨基、烯基羰基氨基、炔基羰基氨基、芳基羰基氨基、杂芳基羰基氨基、芳烷基羰基氨基等。除了这些之外,可以举出与-NH-C=O-R中的N原子键合的H原子进一步被烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基取代的化合物。

[0377] 作为氧基羰基氨基(-NH-C=O-OR)的例子,可以举出烷氧基羰基氨基、环烷氧基羰基氨基、烯氧基羰基氨基、炔氧基羰基氨基、芳氧基羰基氨基、杂芳氧基羰基氨基、芳烷氧基羰基氨基等。除了这些之外,可以举出与-NH-C=O-OR中的N原子键合的H原子进一步被烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基取代的化合物。

[0378] 作为磺酰基氨基(-NH-SO₂-R)的例子,可以举出烷基磺酰基氨基、环烷基磺酰基氨基、烯基磺酰基氨基、炔基磺酰基氨基、芳基磺酰基氨基、杂芳基磺酰基氨基、芳烷基磺酰基

氨基等。除了这些之外,可以举出与 $\text{-NH-SO}_2\text{-R}$ 中的N原子键合的H原子进一步被烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基取代的化合物。

[0379] 作为氨基磺酰基($\text{-SO}_2\text{-NHR}$)的例子,可以举出烷基氨基磺酰基、环烷基氨基磺酰基、烯基氨基磺酰基、炔基氨基磺酰基、芳基氨基磺酰基、杂芳基氨基磺酰基、芳烷基氨基磺酰基等。除了这些之外,可以举出与 $\text{-SO}_2\text{-NHR}$ 中的N原子键合的H原子进一步被烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基取代的化合物。

[0380] 作为氨磺酰氨基($\text{-NH-SO}_2\text{-NHR}$)的例子,可以举出烷基氨磺酰氨基、环烷基氨磺酰氨基、烯基氨磺酰氨基、炔基氨磺酰氨基、芳基氨磺酰氨基、杂芳基氨磺酰氨基、芳烷基氨磺酰氨基等。与 $\text{-NH-SO}_2\text{-NHR}$ 中的N原子键合的两个H原子可以独立地进一步被选自烷基、环烷基、烯基、炔基、芳基、杂芳基和芳烷基组成的组中的取代基所取代,另外这两个取代基也可以形成环。

[0381] 作为含有S原子的取代基,可以举出硫醇(-SH)、硫基(-S-R)、亚磺酰基(-S=O-R)、磺酰基($\text{-SO}_2\text{-R}$)、磺基($\text{-SO}_3\text{H}$)等基团等。

[0382] 作为硫基(-S-R)的例子,可以从烷硫基、环烷硫基、烯硫基、炔硫基、芳硫基、杂芳硫基、芳烷硫基等中选择。

[0383] 作为磺酰基($\text{-SO}_2\text{-R}$)的例子,可以举出烷基磺酰基、环烷基磺酰基、烯基磺酰基、炔基磺酰基、芳基磺酰基、杂芳基磺酰基、芳烷基磺酰基等。

[0384] 作为含有N原子的取代基,可以举出叠氨基(-N_3 ,也称为“叠氮”)、氰基(-CN)、伯氨基(-NH_2)、仲氨基(-NH-R ,也称为单取代氨基)、叔氨基(-NR(R') ,也称为二取代氨基)、脒基(-C(=NH)-NH_2)、取代脒基(-C(=NR)-NR'R'')、胍基(-NH-C(=NH)-NH_2)、取代胍基($\text{-NR-C(=NR'')-NR'R''}$)、氨基羰基氨基(-NR-CO-NR'R'')、吡啶基、哌啶基、吗啉基、氮杂环丁烷基等基团。

[0385] 作为仲氨基(-NH-R ,单取代氨基)的例子,可以举出烷基氨基、环烷基氨基、烯基氨基、炔基氨基、芳基氨基、杂芳基氨基、芳烷基氨基等。

[0386] 作为叔氨基(-NR(R') ,二取代氨基)的例子,可以举出例如烷基(芳烷基)氨基等具有任意两个取代基的氨基,所述取代基各自独立地选自烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基等中,这些任意两个取代基也可以形成环。具体而言,可以列举出二烷基氨基,特别是 $\text{C}_1\text{-C}_6$ 二烷基氨基、 $\text{C}_1\text{-C}_4$ 二烷基氨基、二甲氨基和二乙氨基等。本说明书中的“ Cp-Cq 二烷基氨基”是指氨基被两个 Cp-Cq 烷基取代的基团,两个 Cp-Cq 烷基可以相同也可以不同。

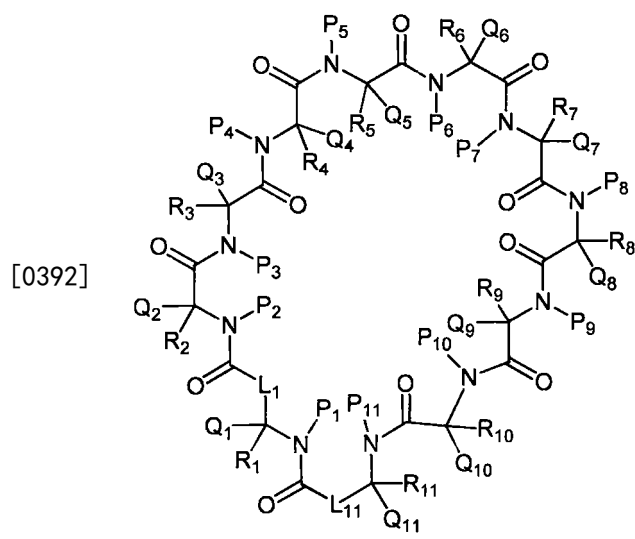
[0387] 作为取代脒基(-C(=NR)-NR'R'')的例子,可以举出N原子上的三个取代基 R 、 R' 和 R'' 各自独立地选自烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基中的基团的取代脒基,例如可以举出烷基(芳烷基)(芳基)脒基等。

[0388] 作为取代胍基($\text{-NR-C(=NR'')-NR'R''}$)的例子,可以举出 R 、 R' 、 R'' 和 R''' 各自独立地选自烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基中的基团,或者是这些取代基形成了环的基团等。

[0389] 作为氨基羰基氨基(-NR-CO-NR'R'')的例子,可以举出 R 、 R' 和 R'' 各自独立地选自氢原子、烷基、环烷基、烯基、炔基、芳基、杂芳基、芳烷基中的基团,或者是这些取代基形成了环的基团等。

[0390] 本说明书中有时将构成肽化合物的“氨基酸残基”简称为“氨基酸”

[0391] 在一个方式中,本发明涉及由下式(1)表示的环状肽化合物或其盐、或它们的溶剂合物。



[0393] 在式(1)中,环由11个氨基酸残基构成。本说明书中,有时将具有 P_1 、 Q_1 、 R_1 和 L_1 的氨基酸残基称为核心(core)1的氨基酸残基,将具有 P_2 、 Q_2 和 R_2 的氨基酸残基称为核心2的氨基酸残基,将具有 P_3 、 Q_3 和 R_3 的氨基酸残基称为核心3的氨基酸残基,将具有 P_4 、 Q_4 和 R_4 的氨基酸残基称为核心4的氨基酸残基,将具有 P_5 、 Q_5 和 R_5 的氨基酸残基称为核心5的氨基酸残基,将具有 P_6 、 Q_6 和 R_6 的氨基酸残基称为核心6的氨基酸残基,将具有 P_7 、 Q_7 和 R_7 的氨基酸残基称为核心7的氨基酸残基,将具有 P_8 、 Q_8 和 R_8 的氨基酸残基称为核心8的氨基酸残基,将具有 P_9 、 Q_9 和 R_9 的氨基酸残基称为核心9的氨基酸残基,将具有 P_{10} 、 Q_{10} 和 R_{10} 的氨基酸残基称为核心10的氨基酸残基,将具有 P_{11} 、 Q_{11} 、 R_{11} 和 L_{11} 的氨基酸残基称为核心11的氨基酸残基。

[0394] 在一个方式中,式(1)中 L_1 是单键、或 $-\text{CHM}_1-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或者 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$, L_{11} 是单键、或 $-\text{CHM}_{11}-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 或者 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$,其中 L_1 和 L_{11} 之一是单键。即,当 L_1 为单键时, L_{11} 为 $-\text{CHM}_{11}-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$,当 L_{11} 为单键时, L_1 为 $-\text{CHM}_1-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 。除了 R_1 和 M_1 形成3~8元脂环的情况以外, M_1 是氢;除了 R_{11} 和 M_{11} 形成3~8元脂环的情况以外, M_{11} 是氢。

[0395] 当 L_1 或 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 时,作为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 具体而言可以举出例如 $-\text{CH}_2\text{SCH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{SCH}_2-$ 、 $-\text{CH}_2\text{SCH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{SCH}_2\text{CH}_2-$ 等。

[0396] 当 L_1 或 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 时,作为 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 具体而言可以举出例如 $-\text{CH}_2\text{S}(\text{O})\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})\text{CH}_2-$ 、 $-\text{CH}_2\text{S}(\text{O})\text{CH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})\text{CH}_2\text{CH}_2-$ 等。

[0397] 当 L_1 或 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时,作为 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 具体而言可以举出例如 $-\text{CH}_2\text{S}(\text{O})_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})_2\text{CH}_2-$ 、 $-\text{CH}_2\text{S}(\text{O})_2\text{CH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})_2\text{CH}_2\text{CH}_2-$ 等。

[0398] 在一个方式中,式(1)中, R_1 为氢、 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基、 C_1 - C_6 烷基,其各自任选被独立地选自卤素、羟基、氨基羰基(该氨基是 $-\text{NH}_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)以及 C_1 - C_6 烷基磺酰基中的一个或多个基团取代。

[0399] 当核心1为 α -氨基酸(即 L_1 为单键)时, R_1 优选为 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基、 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 烷基(该 C_1 - C_6 烷氧基、 C_1 - C_6 烷

基任选被一个或多个卤素、氨基羰基(该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基或4~8元环状氨基)、或羟基取代)、 $\text{C}_3\text{-C}_8$ 环烷基、 $\text{C}_3\text{-C}_8$ 环烷基 $\text{C}_1\text{-C}_6$ 烷基、或 $\text{C}_3\text{-C}_8$ 环烷氧基 $\text{C}_1\text{-C}_6$ 烷基。

[0400] 在该方式中,作为 R_1 更优选为 $\text{C}_1\text{-C}_6$ 烷基, $\text{C}_1\text{-C}_6$ 氟烷基, $\text{C}_1\text{-C}_4$ 羟烷基,甲磺酰基 $\text{C}_1\text{-C}_2$ 烷基, $\text{C}_2\text{-C}_3$ 炔基,任选被一个或多个氟、单 $\text{C}_1\text{-C}_4$ 烷基氨基羰基或羟基取代的 $\text{C}_1\text{-C}_6$ 烷氧基 $\text{C}_1\text{-C}_2$ 烷基, $\text{C}_3\text{-C}_6$ 环烷基, $\text{C}_3\text{-C}_6$ 环烷基 $\text{C}_1\text{-C}_2$ 烷基,或 $\text{C}_3\text{-C}_6$ 环烷氧基 $\text{C}_1\text{-C}_2$ 烷基。

[0401] 在该方式中,作为 R_1 具体而言可以举出例如甲基、乙基、异丙基、正丙基、2-甲基丙基、1-甲基丙基、正丁基、正己基、3-甲基丁基、2-甲基丁基、正戊基、丁-3-炔-1-基、炔丙基、(2-羟基-2-甲基-丙氧基)甲基、(2-(叔丁基氨基)-2-氧代乙氧基)甲基、3,3-二氟丁基、正丙氧基甲基、羟甲基、2,2,2-三氟乙基、5,5-二氟戊基、甲氧基甲基、3-甲基丁氧基甲基、1-羟乙基、环丁氧基甲基、(2,2,2-三氟乙氧基)甲基、1-甲氧基乙基、2-甲氧基乙基、2-甲磺酰基乙基、环己基、环丁基、环丙基、环戊基、环己基甲基、环戊基甲基、环丁基甲基、环丙基甲基、环丙氧基甲基等。

[0402] 当核心1为 β -氨基酸(即 L_1 是 $-\text{CHM}_1-$)时,作为 R_1 优选是氢。

[0403] 在一个方式中,式(1)中, R_1 和 P_1 可以与 R_1 所键合的碳原子和 P_1 所键合的氮原子一起形成4~7元饱和杂环。

[0404] 当 R_1 和 P_1 形成4~7元饱和杂环时,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0405] 在一个方式中,式(1)中, R_1 和 Q_1 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0406] 当 R_1 和 Q_1 形成3~8元脂环或4~7元饱和杂环时,作为3~8元脂环,优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环,优选四氢呋喃环、四氢吡喃环。

[0407] 在一个方式中,式(1)中当核心1为 β -氨基酸时, R_1 和 M_1 可以与 R_1 所键合的碳原子和 M_1 所键合的碳原子一起形成3~8元脂环。

[0408] 当 R_1 和 M_1 形成3~8元脂环时,作为3~8元脂环优选环戊烷环、环己烷环。

[0409] 在一个方式中,式(1)中,当核心1为 β -氨基酸时,除了 R_1 和 M_1 形成3~8元脂环的情况之外, M_1 为氢。

[0410] 在一个方式中,式(1)中,除了 R_1 和 P_1 形成4~7元饱和杂环的情况之外, P_1 为氢或 $\text{C}_1\text{-C}_6$ 烷基,该 $\text{C}_1\text{-C}_6$ 烷基任选被独立地选自自由卤素、羟基、 $\text{C}_1\text{-C}_6$ 烷氧基、氨基(该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-\text{NH}_2$ 、单 $\text{C}_1\text{-C}_6$ 烷基氨基、二 $\text{C}_1\text{-C}_6$ 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代,

[0411] 作为 P_1 优选为氢或 $\text{C}_1\text{-C}_6$ 烷基。作为这样的 P_1 具体而言可以举出例如氢、甲基、乙基、正丙基。

[0412] 在一个方式中,除了 R_1 和 Q_1 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_1 为氢或 $\text{C}_1\text{-C}_6$ 烷基,优选为氢。

[0413] 当核心1为 α -氨基酸时,作为核心1具体而言可以举出例如MeAla、Ala、Pic(2)、MeLeu、MeCha、MeVal、EtAla、nPrAla、MeSer(tBuOH)、MeSer(NtBu-Aca)、MeAla(cPent)、MeAla(cBu)、MeAla(cPr)、MeChg、MeGly(cPent)、MeGly(cBu)、MeGly(cPr)、MeAbu、MeNva、

MeNle、Val、Leu、MeAOC (2)、MeNva (5-F2)、MeHle、MeIle、MeSer (nPr)、MeSer (cPr)、MeSer、MeAbu (4-F3)、MeHnl、MeHnl (7-F2)、MePRA、MeSer (Me)、MeSer (iPen)、MeThr、MeSer (cBu)、MeSer (Tfe)、MeThr (Me)、MeHse (Me)、MeMet (O2)、MeAhxy (2)、EtLeu。

[0414] 当核心1为 β -氨基酸时,作为核心1具体而言可以举出例如bAla、bMeAla。

[0415] 在一个方式中,式(1)中, R_2 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基,其各自任选被独立地选自卤素、羟基、氰基和 C_1 - C_6 烷基磺酰基中的一个或多个基团取代。

[0416] 作为 R_2 优选为 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基 C_1 - C_6 烷基、 C_1 - C_6 氰烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、或 C_3 - C_8 环烷氧基 C_1 - C_6 烷基。

[0417] 作为 R_2 更优选为 C_1 - C_6 烷基、 C_1 - C_6 氟烷基、 C_1 - C_4 羟烷基、甲磺酰基 C_1 - C_2 烷基、 C_2 - C_6 烯基、 C_2 - C_3 炔基、 C_1 - C_6 烷氧基 C_1 - C_2 烷基、 C_3 - C_6 环烷基、 C_3 - C_6 环烷基 C_1 - C_2 烷基、或 C_3 - C_6 环烷氧基 C_1 - C_2 烷基。

[0418] 作为 R_2 具体而言可以举出例如甲基、乙基、正丙基、异丙基、正丁基、2-甲基丙基、1-甲基丙基、正戊基、3-甲基丁基、2-甲基丁基、戊烷-3-基、正丙氧基甲基、环丙氧基甲基、羟甲基、2,2,2-三氟乙基、5,5-二氟戊基、甲氧基甲基、3-甲基-丁氧基-甲基、2-羟乙基、环丁氧基甲基、(2,2,2-三氟乙氧基)甲基、氰基甲基、1-甲氧基乙基、2-甲氧基乙基、2-甲磺酰基乙基、烯丙基、3-甲基丁-2-烯-1-基、炔丙基、环己基、环戊基、环丁基、环丙基、环己基甲基、环戊基甲基、环丁基甲基、环丙基甲基等。

[0419] 在一个方式中,式(1)中, R_2 和 P_2 可以与 R_2 所键合的碳原子和 P_2 所键合的氮原子一起形成4~7元饱和杂环。

[0420] 在 R_2 和 P_2 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0421] 在一个方式中,式(1)中, R_2 和 Q_2 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0422] 在 R_2 和 Q_2 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0423] 在一个方式中,式(1)中,除了 R_2 和 P_2 形成4~7元饱和杂环的情况之外, P_2 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是-NH₂、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。作为 P_2 优选为氢。

[0424] 在一个方式中,除了 R_2 和 Q_2 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_2 为氢或 C_1 - C_6 烷基,优选为氢。

[0425] 作为核心2具体而言可以举出例如Ala、Val、Leu、Ile、Nle、PRA、Chg、Cha、Ala (cPent)、Ala (cBu)、Ala (cPr)、Gly (cPent)、Gly (cBu)、Gly (cPr)、Hle、Ser (nPr)、Ser (cPr)、Ser、Abu (4-F3)、Ahp (2)、Abu、Nva、Hnl (7-F2)、Ser (Me)、Ser (iPen)、Thr、Algly、Pregly、Ser (cBu)、Ser (Tfe)、Ala (CN)、Thr (Me)、Hse (Me)、Met (O2)、Nva (3-Et)。

[0426] 在一个方式中,式(1)中, R_3 是氢、 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、

C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基,其中的每一个任选被独立地选自羟基和氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。

[0427] 作为R₃优选为氢、C₁-C₆烷基、C₁-C₆羟烷基、C₁-C₆烷氧基C₁-C₆烷基(该C₁-C₆烷氧基C₁-C₆烷基任选被氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)或羟基取代)、氨基羰基C₁-C₆烷基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)、C₃-C₈环烷基、C₃-C₈环烷基C₁-C₆烷基、C₃-C₈环烷氧基C₁-C₆烷基、或C₇-C₁₄芳烷基。

[0428] 作为R₃更优选为氢、C₁-C₆烷基、C₁-C₄羟烷基、任选被单C₁-C₄烷基氨基羰基或羟基取代的C₁-C₆烷氧基C₁-C₂烷基、单C₁-C₄烷基氨基羰基C₁-C₂烷基、C₃-C₆环烷基、C₃-C₆环烷基C₁-C₂烷基、苄基、或苯乙基。

[0429] 作为R₃具体而言可以举出例如氢、甲基、乙基、正丙基、异丙基、正丁基、2-甲基丙基、3-甲基丁基、(2-羟基-2-甲基-丙氧基)甲基、(2-(叔丁基氨基)-2-氧代乙氧基)甲基、正丙氧基甲基、环丙氧基甲基、3-甲基丁氧基甲基、1-羟乙基、3-甲基氨基-3-氧代丙基、环己基、环丁基、环丙基、环丙基甲基、环丁基甲基、环戊基甲基、环己基甲基、苄基、苯乙基等。

[0430] 在一个方式中,式(1)中,R₃和P₃可以与R₃所键合的碳原子和P₃所键合的氮原子一起形成4~7元饱和杂环。

[0431] 在R₃和P₃形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0432] 在一个方式中,式(1)中,R₃和Q₃可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0433] 在R₃和Q₃形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0434] 在一个方式中,式(1)中,除了R₃和P₃形成4~7元饱和杂环的情况之外,P₃是氢、C₁-C₆烷基、C₁-C₆烷氧基C₁-C₆烷基、或C₃-C₈环烷基,其中的每一个任选被独立地选自卤素、羟基、C₁-C₆烷氧基、氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)组成的组中的一个或多个基团所取代。

[0435] 作为P₃优选为氢、C₁-C₆烷基、C₁-C₆氨基烷基(该氨基是-NH₂、受保护的氨基、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、或C₃-C₈环烷基。

[0436] 作为P₃更优选为氢、C₁-C₆烷基、C₁-C₄烷氧基C₁-C₂烷基、任选被一个或多个卤素取代的4~8元环状氨基C₁-C₂烷基、或C₃-C₆环烷基。作为这样的P₃具体而言可以举出例如氢、甲基、乙基、正丙基、异丙基、环丙基、正丁基、异丁基、2-乙氧基乙基、2-(4,4-二氟-1-哌啶基)乙基等。

[0437] 在一个方式中,除了R₃和Q₃形成3~8元脂环或4~7元饱和杂环的情况之外,Q₃为氢或C₁-C₆烷基,优选为氢。

[0438] 作为核心3具体而言可以举出例如MeAla、Ala、Pic(2)、MeLeu、MeCha、MeVal、EtAla、MeSer(tBuOH)、MeSer(NtBu-Aca)、MeAla(cPent)、MeAla(cBu)、MeAla(cPr)、MeChg、

MeGly (cBu)、MeGly (cPr)、MeAbu、MeNva、MeNle、MeHle、MeSer (nPr)、MeSer (cPr)、MeSer (iPen)、MeThr、Abu、MeGly、EtGly、Gly、nBuGly、iPrGly、cPrGly、nPrGly、iBuGly、(EtOEt) NGly、2- (pip-4-F2) -EtGly、Pro、Aze (2)、MeGln (Me)、MePhe、MeHph。

[0439] 在一个方式中,式(1)中, R_4 为氢或 C_1-C_6 烷基,优选为氢或 C_1-C_4 烷基。作为 R_4 具体而言可以举出氢、甲基等。

[0440] 在一个方式中,式(1)中, R_4 和 P_4 可以与 R_4 所键合的碳原子和 P_4 所键合的氮原子一起形成4~7元饱和杂环(优选4元或5元饱和杂环)。

[0441] 在 R_4 和 P_4 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0442] 在一个方式中,式(1)中, R_4 和 Q_4 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0443] 在 R_4 和 Q_4 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0444] 在一个方式中,式(1)中除了 R_4 和 P_4 形成4~7元饱和杂环的情况之外, P_4 是氢、 C_1-C_6 烷基、或 C_1-C_6 烷氧基 C_1-C_6 烷基,其中的每一个任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)组成的组中的一个或多个基团所取代。

[0445] 作为 P_4 优选为 C_1-C_6 烷基或 C_1-C_6 烷氧基 C_1-C_6 烷基。

[0446] 作为 P_4 更优选为氢、 C_1-C_6 烷基、 C_1-C_4 烷氧基 C_1-C_2 烷基。作为 P_4 具体而言可以举出例如甲基、乙基、正丙基、正丁基、异丙基、异戊基、2-乙氧基乙基等。

[0447] 在一个方式中,除了 R_4 和 Q_4 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_4 为氢或 C_1-C_6 烷基,优选为氢。

[0448] 作为核心4具体而言可以举出例如MeAla、Pic (2)、MeGly、EtGly、nBuGly、nPrGly、(EtOEt) NGly、Pro、Aze (2)、iPenGly。

[0449] 在一个方式中,式(1)中, R_5 为 C_1-C_6 烷基、 C_2-C_6 烯基、 C_2-C_6 炔基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基、 C_6-C_{10} 芳氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷基,它们各自任选被独立地选自自由卤素、羟基、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、氰基、以及 C_1-C_6 烷基磺酰基所组成的组中的一个或多个基团所取代。

[0450] 作为 R_5 优选 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_2-C_6 烯基、 C_1-C_6 烷基磺酰基 C_1-C_6 烷基、 C_2-C_6 炔基、任选被一个或多个卤素取代的 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、 C_3-C_8 环烷氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷基(该 C_7-C_{14} 芳烷基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷基、 C_1-C_6 卤代烷氧基、或氰基取代)、任选被一个或多个卤素取代的 C_6-C_{10} 芳氧基 C_1-C_6 烷基、 C_7-C_{14} 芳烷氧基 C_1-C_6 烷基、或5~10元杂芳基 C_1-C_6 烷基。

[0451] 作为 R_5 更优选为 C_1-C_6 烷基、 C_1-C_6 氟烷基、 C_1-C_4 羟烷基、 C_2-C_3 烯基、 C_2-C_3 炔基、甲基烷基磺酰基 C_1-C_2 烷基、任选被一个或多个氟取代的 C_1-C_6 烷氧基 C_1-C_2 烷基、 C_3-C_6 环烷基、 C_3-C_6 环烷氧基 C_1-C_2 烷基、任选被一个或多个卤素、甲基、甲氧基、三氟

甲基、三氟甲氧基或氰基取代的苄基或苄乙基、任选被一个或多个卤素取代的苯氧基 C_1-C_2 烷基、苄氧基 C_1-C_2 烷基、5~6元杂芳基 C_1-C_2 烷基。

[0452] 作为 R_5 具体而言可以举出例如甲基、乙基、正丙基、异丙基、正丁基、2-甲基丙基、1-甲基丙基、2-甲基丁基、3-甲基丁基、正戊基、炔丙基、3,3-二氟丁基、正丙氧基甲基、环丙氧基甲基、羟甲基、2,2,2-三氟乙基、5,5-二氟丁基、甲氧基甲基、3-甲基丁氧基甲基、1-羟乙基、环丁氧基甲基、(2,2,2-三氟乙氧基)甲基、1-甲氧基乙基、2-甲氧基乙基、2-甲磺酰基乙基、(2-氯苯氧基)甲基、烯丙基、环丙基、环丁基、环己基、环戊基、环戊基甲基、环己基甲基、环丁基甲基、环丙基甲基、吡啶-3-基甲基、苄乙基、4-氯苄基、2-氰基苄基、3-氰基苄基、4-乙炔基苄基、2-氟苄基、2-氯苄基、3-氯苄基、3-溴苄基、4-溴苄基、2-甲基苄基、3-甲基苄基、4-甲基苄基、2-(三氟甲基)苄基、3-(三氟甲基)苄基、4-(三氟甲基)苄基、4-甲氧基苄基、2-(三氟甲氧基)苄基、3-(三氟甲氧基)苄基、4-(三氟甲氧基)苄基、3,4-二氟苄基、4-碘苄基、苄基、3-氟苄基、4-氟苄基等。

[0453] 在一个方式中,式(1)中, R_5 可以与 R_8 一起形成 C_4-C_8 亚烷基。作为 C_4-C_8 亚烷基优选 $-(CH_2)_8-$ 。

[0454] 在一个方式中,式(1)中, R_5 和 P_5 可以与 R_5 所键合的碳原子和 P_5 所键合的氮原子一起形成4~7元饱和杂环。

[0455] 在 R_5 和 P_5 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0456] 在一个方式中,式(1)中, R_5 和 Q_5 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0457] 在 R_5 和 Q_5 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0458] 在一个方式中,式(1)中,除了 R_5 和 P_5 形成4~7元饱和杂环的情况之外, P_5 为氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。

[0459] 作为 P_5 优选为氢或 C_1-C_2 烷基,具体而言可以举出例如氢、甲基、乙基。

[0460] 在一个方式中,除了 R_5 和 Q_5 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_5 为氢或 C_1-C_6 烷基,优选为氢。

[0461] 作为核心5具体而言可以举出例如MeAla、MeLeu、MeCha、MeVal、MeAla(cPent)、MeAla(cBu)、MeAla(cPr)、MeChg、MeGly(cPent)、MeGly(cBu)、MeGly(cPr)、MeAbu、MeNva、MeNle、MeNva(5-F2)、MeHle、MeIle、MeSer(nPr)、MeSer(cPr)、MeSer、MeAbu(4-F3)、MeHn1、MeHn1(7-F2)、MePRA、MeSer(Me)、MeSer(iPen)、MeThr、MeSer(cBu)、MeSer(Tfe)、MeThr(Me)、MeHse(Me)、MeMet(O2)、MePhe、MeHph、MePhe(4-Cl)、MeThr(Bn)、EtPhe(4-Cl)、MePhe(2-CN)、MePhe(3-CN)、MePhe(4-CN)、MePhe(2-F)、MePhe(3-F)、MePhe(4-F)、MePhe(2-Cl)、MePhe(3-Cl)、MePhe(3-Br)、MePhe(4-Br)、MePhe(2-Me)、MePhe(3-Me)、MePhe(4-Me)、MePhe(2-CF3)、MePhe(3-CF3)、MePhe(4-CF3)、MeTyr(Me)、MePhe(2-OCF3)、MePhe(3-OCF3)、MePhe(4-OCF3)、MeSer(Ph-2-Cl)、MeAlgly、MePhe(34-F2)、MeAla(3-Pyr)、MePhe(4-I)、EtCha、

EtPhe (4-Me)、EtPhe (4-CF₃)、Phe (4-Me)。

[0462] 在一个方式中,式(1)中,R₆为氢或C₁-C₆烷基,优选为氢或C₁-C₃烷基。作为R₆具体而言可以举出例如氢、甲基。

[0463] 在一个方式中,式(1)中,R₆和P₆可以与R₆所键合的碳原子和P₆所键合的氮原子一起形成4~7元饱和杂环。

[0464] 在R₆和P₆形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0465] 在一个方式中,式(1)中,R₆和Q₆可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0466] 在R₆和Q₆形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0467] 在一个方式中,式(1)中除了R₆和P₆形成4~7元饱和杂环的情况之外,P₆为C₁-C₆烷基或C₃-C₈环烷基,其中的每一个任选被独立地选自自由卤素、羟基、C₁-C₆烷氧基氨基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。

[0468] 作为P₆优选为C₁-C₆烷基或C₃-C₈环烷基,更优选为C₁-C₄烷基、C₃-C₆环烷基。作为这样的P₆具体而言可以举出例如甲基、乙基、环丙基等。

[0469] 在一个方式中,除了R₆和Q₆形成3~8元脂环或4~7元饱和杂环的情况之外,Q₆为氢或C₁-C₆烷基,优选为氢。

[0470] 作为核心6具体而言可以举出例如MeAla、MeGly、EtGly、cPrGly、D-Pro、D-MeAla、D-Pic (2)。

[0471] 在一个方式中,在式(1)中,R₇为C₆-C₁₀芳氧基C₁-C₆烷基、C₇-C₁₄芳烷基、C₇-C₁₄芳烷氧基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷基,其中的每一个任选被独立地选自自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆炔基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氰基、C₁-C₆烷基磺酰基、以及SF₅所组成的组中的一个或多个基团所取代。

[0472] 作为R₇优选为C₆-C₁₀芳氧基C₁-C₆烷基(该C₆-C₁₀芳氧基C₁-C₆烷基任选被独立地选自卤素和C₁-C₆卤代烷基中的一个或多个基团取代)、C₇-C₁₄芳烷基(该C₇-C₁₄芳烷基任选被独立地选自自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、C₂-C₆炔基、氰基、C₁-C₆烷基磺酰基以及SF₅构成的一组中的一个或多个基团所取代)、任选被一个或多个卤素取代的C₇-C₁₄芳烷氧基C₁-C₆烷基、或5~10元杂芳基C₁-C₆烷基(该5~10元杂芳基C₁-C₆烷基任选被一个或多个卤素、C₁-C₆烷基、C₁-C₆卤代烷基或C₁-C₆烷氧基所取代)。

[0473] 作为R₇更优选为-(CH₂)_x-O_y-(CH₂)_{z1}-C₆-C₁₀芳基或-(CH₂)_x-O_y-(CH₂)_{z2}-5~10元杂芳基,这些基团任选被独立地选自自由卤素、C₁-C₄烷基(优选甲基)、C₂-C₄炔基(优选乙炔基)、C₁-C₃卤代烷基(优选二氟甲基、三氟甲基)、C₁-C₃卤代烷氧基(优选二氟甲氧基、三氟甲氧基)、C₁-C₄烷氧基(优选甲氧基、乙氧基、异丙氧基、正丁氧基、叔丁氧基)、-CN、C₁-C₃烷基磺酰基(优选甲磺酰基)以及SF₅组成的组中的1~5个基团所取代,其中以x、y和z1或z2之和为1~4作为条件,x为1、2或3,y为0或1,z1为0、1、2或3。作为这样的-(CH₂)_x-O_y-(CH₂)_{z1}-C₆-C₁₀芳基或-(CH₂)_x-O_y-(CH₂)_{z2}-5~10元杂芳基,优选为-CH₂-C₆-C₁₀芳基或-(CH₂)₂-C₆-C₁₀芳基,

它们任选被上述取代基所取代。在 $-(\text{CH}_2)_x-\text{O}_y-(\text{CH}_2)_{z1}-\text{C}_6-\text{C}_{10}$ 芳基具有取代基的情况下,该取代基优选位于基团中的 C_6-C_{10} 芳基上,在 $-(\text{CH}_2)_x-\text{O}_y-(\text{CH}_2)_{z2}-5\sim 10$ 元杂芳基具有取代基的情况下,该取代基优选位于基团中的5~10元杂芳基上。

[0474] 作为 R_7 具体而言可以举出例如((4-氯苄基)氧基)甲基、2-(4-氯苄氧基)乙基、2-(3,4-二氯苄氧基)乙基、2-(4-(三氟甲基苄氧基))乙基、(4-氯苄氧基)甲基、((3-氯苄基)氧基)甲基、((2-氯苄基)氧基)甲基、3-碘苄基、3-氯苄基、3-甲基苄基、3-氟苄基、3,5-二氟苄基、4-甲基苄基、4-(三氟甲基)苄基、3-氯-5-氟苄基、3-氰基苄基、3-(三氟甲氧基)苄基、苄基、4-氟苄基、2-氟-4-(三氟甲基)苄基、3-氯苄基、4-氯苄基、3-氟-4-(三氟甲基)苄基、2,3,4,5,6-五氟苄基、2,4,5-三氟苄基、2,5-二氟苄基、2-氟-4-氯苄基、2,4-二氟苄基、2-氟-6-氯苄基、2,4,6-三氟苄基、3-氯-4-(三氟甲基)苄基、3-三氟甲基苄基、4-(五氟- λ 6-硫烷基)苄基、3,5-二氟-4-(三氟甲基)苄基、3-甲氧基苄基、3,5-二氯苄基、3-氯-4-氟苄基、苄基、3,4-二氯苄基、3-溴苄基、4-氟苄基、2-氟-5-碘苄基、2-氯-5-碘苄基、3-乙炔基苄基、3-氟苄基、3-苄基丙基、2-氟苄基、2-氟-3-碘苄基、2-氟-3-溴苄基、3-碘-5-氟苄基、3-碘-5-氯苄基、3-溴-5-氟苄基、2-溴-5-碘苄基、2-甲基-5-碘苄基、2-氟-5-甲基苄基、2-氯-5-溴苄基、2-甲基-5-溴苄基、2,3-二氟苄基、2,5-二氟苄基、2,6-二氟苄基、3-氟-4-(二氟甲氧基)苄基、3-氰基-4-(三氟甲基)苄基、3-甲氧基-4-(三氟甲基)苄基、2-(2,2-二氟苯并[d][1,3]二氧戊环-5-基)乙基、3-氯-4-(三氟甲氧基)苄基、3-氟-4-(三氟甲氧基)苄基、4-(甲基磺酰基)苄基、3-氟-4-(二氟甲基)苄基、3,4,5-三氯苄基、3,4-二氯-5-甲氧基苄基、3,4-二氯-5-氰基苄基、3,4-二氯-5-异丙氧基苄基、3,4-二氯-5-(正丁氧基)苄基、3,4-二氯-5-(叔丁氧基)苄基、3-(4-(三氟甲基)苯基)丙基、(5-氯噻吩-2-基)甲基、(5-溴噻吩-2-基)甲基、(5-溴吡啶-3-基)甲基、2-(6-(三氟甲基)吡啶-3-基)乙基、2-(喹啉-6-基)乙基、2-(1-甲基-1H-吡啶-6-基)乙基、2-(1-甲基-1H-吡啶-5-基)乙基、2-(6-甲氧基吡啶-3-基)乙基、2-(苯并呋喃-5-基)乙基、2-(6-(二氟甲基)吡啶-3-基)乙基、2-(5-(三氟甲基)吡啶-2-基)乙基、2-(喹啉-7-基)乙基等。

[0475] 在一个方式中,式(1)中, R_7 和 P_7 可以与 R_7 所键合的碳原子和 P_7 所键合的氮原子一起形成4~7元饱和杂环。

[0476] 在 R_7 和 P_7 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0477] 在一个方式中,式(1)中, R_7 和 Q_7 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0478] 在 R_7 和 Q_7 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0479] 在一个方式中,式(1)中除了 R_7 和 P_7 形成4~7元饱和杂环的情况之外, P_7 为氢或 C_1-C_6 烷基,该 C_1-C_6 烷基任选被独立地选自卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-\text{NH}_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-\text{NH}_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。作为 P_7 优选为氢。

[0480] 在一个方式中,除了 R_7 和 Q_7 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_7 为

氢、 C_1 - C_6 烷基或 C_7 - C_{14} 芳烷基,优选为氢。

[0481] 作为核心7,具体而言可以举出例如Phe (3-Cl)、Phe (3-Me)、Phe (3-F)、Phe (35-F2)、Hph (4-Me)、Hph (4-CF3)、Phe (3-Cl-5-F)、Phe (3-I)、Phe (3-CN)、Phe (3-OCF3)、Phe、Hph (4-F)、Hph (4-CF3-2-F)、Hph (3-Cl)、Hph (4-Cl)、Hph (4-CF3-3-F)、Hph (F5)、Hph (245-F3)、Hph (2-F-5-Cl)、Hph (2-F-4-Cl)、Hph (24-F2)、Hph (2-F-6-Cl)、Hph (246-F3)、Hph (4-CF3-3-Cl)、Hph (3-CF3)、Hph (4-SF5)、Hph (4-CF3-35-F2)、Phe (3-OMe)、Phe (35-Cl2)、Phe (3-Cl-4-F)、Hph、Hph (34-Cl2)、Phe (3-Br)、Phe (4-F)、Phe (2-F-5-I)、Phe (2-Cl-5-I)、Ala (2-Thie-5-Cl)、Ala (2-Thie-5-Br)、(Me) Phe (3-I)、Phe (3-C#C)、Hph (3-F)、Phe3、Phe (2-F)、Phe (2-F-3-I)、Phe (2-F-3-Br)、Phe (3-I-5-F)、Phe (3-I-5-Cl)、Ala (3-Pyr-5-Br)、Phe (3-Br-5-F)、Phe (2-Br-5-I)、Phe (2-Me-5-I)、Phe (2-F-5-Br)、Phe (2-Cl-5-Br)、Phe (2-Me-5-Br)、Phe (23-F2)、Phe (25-F2)、Phe (26-F2)、Hph (3-F-4-OCF2)、Hph (3-CN-4-CF3)、Hph (3-OMe-4-CF3)、Abu (3-Pyr-4-CF3)、Abu (34-Cate (CF2))、Hph (3-Cl-4-OCF3)、Hph (3-F-4-OCF3)、Abu (6-Quino)、Abu (1-Me-6-Indo)、Abu (1-Me-5-Indo)、Abu (3-Pyr-4-OMe)、Abu (5-Bzfr)、Abu (3-Pyr-4-CHF2)、Abu (2-Pyr-4-CF3)、Hph (4-SO2Me)、Hph (3-F-4-CHF2)、Abu (7-Quino)、Hph (345-Cl3)、Hph (34-Cl2-5-OMe)、Hph (34-Cl2-5-CN)、Hph (34-Cl2-5-OiPr)、Hph (34-Cl2-5-OnBu)、Hph (34-Cl2-5-OtBu)、Phe3 (4-CF3)、Ser (Bn-4-Cl)、Hse (Ph-4-Cl)、Hse (Ph-34-Cl2)、Hse (Ph-4-CF3)、Ser (Ph-4-Cl)、Ser (Bn-3-Cl)、Ser (Bn-2-Cl)。

[0482] 在一个方式中,式(1)中, R_8 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_2 - C_6 烯氧基羰基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、 C_7 - C_{14} 芳烷氧基 C_1 - C_6 烷基、5~10元杂芳基 C_1 - C_6 烷基、或5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基,其中的每一个任选被独立地选自自由卤素、羟基、羧基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、氰基、氨基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、4~7元杂环烷叉基、受保护的4~7元杂环烷叉基、4~7元杂环基、以及受保护的4~7元杂环基所组成的组中的一个或多个基团所取代。

[0483] 作为 R_8 优选为氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 羧基烷基、 C_1 - C_6 氨基烷基(该氨基是 $-NH_2$ 、受保护的氨基、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、氨基羰基 C_1 - C_6 烷基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、任选受保护的4~7元杂环基 C_1 - C_6 烷基、任选受保护的4~7元杂环烷叉基 C_1 - C_6 烷基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基(该 C_1 - C_6 烷氧基 C_1 - C_6 烷基任选被氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)或羟基取代)、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 烯氧基羰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_6 - C_{10} 芳氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基(该 C_7 - C_{14} 芳烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、 C_1 - C_6 卤代烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、5~10元杂芳基 C_1 - C_6 烷基(该5~10元杂芳基烷基任选被选自自由 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 烷氧基、以及氰基所组成的组中的一个或多个基团所取代)、或者任选被一个或多个卤素取代的5~10元杂芳基 C_1 - C_6 烷氧基 C_1 - C_6 烷基。

[0484] 作为 R_8 更优选为氢、 C_1 - C_6 烷基、 C_1 - C_6 氟烷基、 C_1 - C_4 羟烷基、 C_1 - C_4 羧基烷基、受保护的氨基 C_1 - C_4 烷基、单 C_1 - C_4 烷基氨基羰基 C_1 - C_2 烷基、二 C_1 - C_4 烷基氨基羰基 C_1 - C_2 烷基、任选被一个或多个氟原子取代的4~8元环状氨基羰基 C_1 - C_2 烷基、任选被一个或多个氟原子取代的4~8元环状氨基 C_1 - C_2 烷基、任选受保护的4~7元杂环基 C_1 - C_2 烷基、任选受保护的4~7元杂环烷基 C_1 - C_2 烷基、单 C_1 - C_4 烷基氨基羰基甲氧基 C_1 - C_2 烷基、任选被羟基取代的 C_1 - C_4 烷氧基 C_1 - C_2 烷基、 C_3 - C_6 环烷基、 C_3 - C_6 环烷基 C_1 - C_2 烷基、 C_2 - C_6 烯基、 C_2 - C_3 炔基、 C_2 - C_3 烯氧基羰基 C_1 - C_2 烷基、苯氧基 C_1 - C_2 烷基、任选被独立地选自自由卤素、羟基、甲基、二氟甲基、三氟甲基、甲氧基、三氟甲氧基、羟基以及氰基组成的组中的一个或多个基团取代的苄基或苄乙基、任选被选自自由甲基、三氟甲基、甲氧基以及氰基组成的组中的一个或多个基团取代的5~6元杂芳基 C_1 - C_2 烷基、或任选被一个或多个卤素原子取代的5~6元杂芳基甲氧基 C_1 - C_2 烷基。

[0485] 在一个方式中,作为 R_8 更优选为 $-(CH_2)_x-O_y-(CH_2)_{z1}-C_6-C_{10}$ 芳基或 $-(CH_2)_x-O_y-(CH_2)_{z2}-5\sim 10$ 元杂芳基,它们任选被独立地选自自由卤素、 C_1 - C_4 烷基(优选甲基)、 C_2 - C_4 炔基(优选乙炔基)、 C_1 - C_3 卤代烷基(优选二氟甲基、三氟甲基)、 C_1 - C_3 卤代烷氧基(优选三氟甲氧基)、 C_1 - C_4 烷氧基(优选甲氧基)、 $-CN$ 、 C_1 - C_3 烷基磺酰基(优选甲磺酰基)、羟基、以及 SF_5 组成的组中的1~5个基团所取代,其中以 x 、 y 和 $z1$ 或 $z2$ 之和为1~4作为条件, x 为1、2或3, y 为0或1, $z1$ 为0、1、2或3, $z2$ 为1、2或3。在 $-(CH_2)_x-O_y-(CH_2)_{z1}-C_6-C_{10}$ 芳基具有取代基的情况下,该取代基优选位于基团中的 C_6 - C_{10} 芳基上,在 $-(CH_2)_x-O_y-(CH_2)_{z2}-5\sim 10$ 元杂芳基具有取代基的情况下,该取代基优选位于基团中的5~10元杂芳基上。

[0486] 作为 R_8 具体而言可以举出例如氢、甲基、乙基、异丙基、正丙基、正丁基、2-甲基丙基、1-甲基丙基、新戊基、(2-羟基-2-甲基-丙氧基)甲基、(2-(叔丁基氨基)-2-氧代乙氧基)甲基、3,3-二氟丁基、正丙氧基甲基、3-甲基丁氧基甲基、1-羟乙基、2-甲氧基乙基、2-甲基丁基、5,5-二氟戊基、3-甲基氨基-3-氧代-丙基、((5-氟吡啶-3-基)甲氧基)甲基、4-(((烯丙氧基)羰基)氨基)丁基、2-羟基-2-氧代-乙基、(5-氟吡啶-3-基)甲基、2-(3,3-二氟哌啶基)乙基、2-(4,4-二氟哌啶基)-2-氧代-乙基、2-(烯丙氧基)-2-氧代乙基、苯氧基甲基、羟甲基、2-(四氢-4H-吡喃)-4-亚基)乙基、2-(四氢-2H-吡喃-4-基)乙基、2-(1-(叔丁氧基羰基)氮杂环丁烷-3-亚基)乙基、2-(1-(叔丁氧基羰基)氮杂环丁烷-3-基)乙基、2-(3,3-二氟-氮杂环丁烷-1-基)-2-氧代乙基、2-(3,3-二氟-氮杂环丁烷-1-基)-乙基、3-(二甲氨基)-3-氧代丙基、3-(3,3-二氟-氮杂环丁烷-1-基)-3-氧代丙基、3-(氮杂环丁烷-1-基)-3-氧代丙基、2-(哌啶基)-2-氧代-丙基、3-(吡咯烷-1-基)-3-氧代丙基、3-(吗啉-1-基)-3-氧代丙基、2-(二甲氨基)-2-氧代乙基、2-(氮杂环丁烷基)-2-氧代乙基、2-(哌啶基)-2-氧代乙基、2-(吡咯烷基)-2-氧代乙基、2-(吗啉-1-基)-2-氧代乙基、烯丙基、2-甲基烯丙基、3-甲基丁-2-烯-1-基、戊-4-烯-1-基、炔丙基、3-烯丙氧基-3-氧代丙基、环己基、环戊基甲基、环丙基甲基、苄基、苄乙基、4-氯苄基、3-氰基苄基、4-乙炔基苄基、2-氟苄基、2-氯苄基、3-氯苄基、3-溴苄基、4-溴苄基、2-甲基苄基、3-甲基苄基、4-甲基苄基、4-甲氧基苄基、3-(三氟甲氧基)苄基、4-(三氟甲氧基)苄基、3,4-二氟苄基、4-碘苄基、4-氟苄基、4-二氟甲基苄基、3-氟-4-羟基苄基、4-(三氟甲基)苄基、2-三氟甲基苄基、2-甲氧基苄基、3-三氟甲基苄基、2-(三氟甲氧基)苄基、3-甲氧基苄基、3-碘苄基、3-氟苄基、吡啶-3-基甲基、噻唑-4-基甲基、(6-氰基吡啶-3-基)甲基、(6-甲氧基吡啶-3-基)甲基、(6-三氟甲基吡啶-3-基)甲基、(5-甲基吡啶-3-基)甲基、(5-甲氧基吡啶-3-基)甲基、(吡啶-4-基)甲基、(6-甲基吡

啉-3-基)甲基、2-(吡啉-3-基)乙基、2-(吡啉-4-基)乙基等。

[0487] 在一个方式中,式(1)中, R_8 与 P_8 可以一起形成 C_4-C_8 亚烷基。作为 C_4-C_8 亚烷基优选 $-(CH_2)_8-$ 。

[0488] 在一个方式中,式(1)中, R_8 和 P_8 与 R_8 所键合的碳原子和 P_8 所键合的氮原子一起形成4~7元饱和杂环(优选4元或5元杂环)。该4~7元饱和杂环任选与饱和碳环或芳香环稠合。该4~7元饱和杂环任选被卤素、氧代、 C_6-C_{10} 芳基、5~10元杂芳基、4~8元环状氨基(该环状氨基任选被一个或多个卤素取代)、或 OS_8 取代。其中, S_8 是氢、 C_1-C_6 烷基、 C_1-C_6 卤代烷基、 C_1-C_6 羟烷基、 C_7-C_{14} 芳烷基(该芳烷基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、或 C_1-C_6 卤代烷氧基取代)、或5~10元杂芳基 C_1-C_6 烷基。

[0489] 在 R_8 和 P_8 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。这些饱和杂环可以与3~8元饱和碳环(优选环己烷环)或6~10元芳香环(优选苯环)稠合。在该4~7元饱和杂环具有一个或多个取代基的情况下,该4~7元饱和杂环优选被一个或多个卤素、羟基、氧代、 C_1-C_6 烷氧基、 C_1-C_6 卤代烷氧基、 C_1-C_6 羟基烷氧基、 C_6-C_{10} 芳基、5~10元杂芳基 C_1-C_6 烷氧基、 C_7-C_{14} 芳烷氧基(该 C_7-C_{14} 芳烷氧基任选被一个或多个卤素、 C_1-C_6 烷基、 C_1-C_6 烷氧基、或 C_1-C_6 卤代烷氧基取代)、任选被一个或多个卤素取代的4~8元环状氨基、或5~10元杂芳基所取代。作为该4~7元饱和杂环的取代基可更优选出卤素、羟基、氧代、乙氧基、2-羟乙基、苯基、二氟乙氧基、任选被独立地选自自由卤素、甲基、三氟甲基、甲氧基、二氟甲氧基组成的组中的一个或多个取代基所取代的苄氧基、5~6元杂芳基甲氧基、任选被一个或多个氟取代的4~8元环状氨基、苯基、5~6元杂芳基等。

[0490] 在一个方式中,式(1)中, R_8 和 Q_8 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0491] 在 R_8 和 Q_8 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0492] 在一个方式中,式(1)中,除了 R_8 和 P_8 形成4~7元饱和杂环的情况之外, P_8 是氢、 C_1-C_6 烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基、 C_2-C_6 烯基、 C_1-C_6 烷氧基 C_2-C_6 烯基、 C_3-C_8 环烷基、4~7元杂环基、4~7元杂环基 C_1-C_6 烷基、 C_6-C_{10} 芳基、 C_7-C_{14} 芳烷基、5~10元杂芳基、或5~10元杂芳基 C_1-C_6 烷基,其中的每一个任选被独立地选自自由卤素、羟基、 C_1-C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素或 C_1-C_6 烷基取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。

[0493] 作为 P_8 优选为氢、 C_1-C_6 烷基、 C_1-C_6 羟烷基、 C_1-C_6 烷氧基 C_1-C_6 烷基(该 C_1-C_6 烷氧基 C_1-C_6 烷基任选被一个或多个卤素、羟基、二 C_1-C_6 烷基氨基羰基、 C_1-C_6 烷氧基、或氨基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)取代)、氨基羰基 C_1-C_6 烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素取代)、 C_1-C_6 氨基烷基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被一个或多个卤素或 C_1-C_6 烷基取代)、 C_2-C_6 烯基、 C_2-C_6 羟基烯基、氨基羰基 C_2-C_6 烯基(该氨基是 $-NH_2$ 、单 C_1-C_6 烷基氨基、二 C_1-C_6 烷基氨基、或4~8元环状氨基)、 C_1-C_6 烷氧基 C_2-C_6 烯基、任选被一个或多个卤素取代的 C_3-C_8 环烷基、4

~7元杂环基、4~7元杂环基C₁-C₆烷基、任选被一个或多个卤素取代的C₆-C₁₀芳基、C₇-C₁₄芳烷基、5~10元杂芳基、或5~10元杂芳基C₁-C₆烷基。

[0494] 作为P₈可更优选举出氢、C₁-C₆烷基、C₁-C₆羟烷基、任选被一个或多个氟、羟基、二甲氨基羰基、甲氧基、氨基、甲氨基、二甲氨基取代的C₁-C₄烷氧基C₁-C₂烷基、二甲氨基羰基C₁-C₄烷基、氨基C₁-C₄烷基(该氨基是-NH₂)、任选被一个或多个氟或甲基取代的4~8-元环状氨基C₁-C₄烷基、C₂-C₃烯基、C₂-C₆羟基烯基、二甲氨基羰基C₂-C₃烯基、甲氧基C₂-C₆烯基、任选被一个或多个氟取代的C₃-C₈环烷基、4~7元杂环基、4~7元杂环基C₁-C₂烷基、任选被一个或多个卤素取代的苯基、苄基、5~6元杂芳基、或5~6元杂芳基C₁-C₂烷基等。

[0495] 作为P₈具体而言可以举出例如氢、甲基、乙基、正丁基、烯丙基、2-羟乙基、2-乙氧基乙基、2-(二甲氨基羰基甲氧基)乙基、2-(2-羟基-2-甲基丙氧基)乙基、4-氨基丁基、2-哌嗪-1-基乙基、2-(4-甲基哌嗪-1-基)乙基、2-(2,2,2-三氟乙氧基)乙基、2-(2-甲氧基乙氧基)乙基、2-(2,2-二氟乙氧基)乙基、2-(2-氨基乙氧基)乙基、2-[2-(甲基氨基)乙氧基]乙基、2-[2-(二甲氨基)乙氧基]乙基、5-羟戊基、苯基、3-氯苯基、4-氯苯基、苄基、(E)-3-(二甲氨基羰基)-丙-2-烯-1-基、(E)-5-羟基戊-2-烯-1-基、(E)-4-羟基-4-甲基-戊-2-烯-1-基、(E)-5-羟基-5-甲基-己-2-烯-1-基、(E)-4-甲氧基丁-2-烯-1-基、3-(二甲氨基羰基)丙基、2,2-二氟螺[3.3]庚烷-6-基、3-噻吩基、3-吡啶基甲基、2-氧杂螺[3.3]庚烷-6-基、氧杂环丁烷-3-基甲基、2-(氮杂环丁烷-3-基)乙基、2-(4,4-二氟-1-哌啶基)乙基、3-(4,4-二氟-1-哌啶基)丙基等。

[0496] 在一个方式中,除了R₈和Q₈形成3~8元脂环或4~7元饱和杂环的情况之外,Q₈为氢或C₁-C₆烷基,优选为氢。

[0497] 作为核心8,具体而言可以举出例如MeAla、Ala、Pic(2)、MeLeu、EtAla、MeSer(tBuOH)、MeSer(NtBu-Aca)、MeAla(cPent)、MeAla(cPr)、MeNva、MeNle、Val、Leu、MeNva(5-F2)、MeSer(nPr)、MeHnl(7-F2)、MeSer(iPen)、MeThr、MeHse(Me)、Ile、Nle、PRA、Chg、Abu、Hnl(7-F2)、Ser(iPen)、Algly、Pregly、EtGly、nBuGly、(EtOEt)NGly、Pro、Aze(2)、MeGln(Me)、MePhe、MePhe(4-Cl)、MePhe(3-CN)、MePhe(4-CN)、MePhe(2-F)、MePhe(3-F)、MePhe(4-F)、MePhe(2-Cl)、MePhe(3-Cl)、MePhe(3-Br)、MePhe(4-Br)、MePhe(2-Me)、MePhe(3-Me)、MePhe(4-Me)、MeTyr(Me)、MePhe(3-OCF₃)、MePhe(4-OCF₃)、MeAlgly、MePhe(34-F2)、MeAla(3-Pyr)、MePhe(4-I)、Phe(4-Me)、D-MeAla、Phe(3-Me)、Phe、Hph、Phe(4-F)、Phe(2-F)、Hyp(Et)、Tle、Pro(4-F2)、Ser(tBuOH)、Ser(NtBu-Aca)、Ser(3-F-5-Me-Pyr)、Glu(OAl)、Oic、Hyp、cisHyp、Lys(Alloc)、Phe(4-CHF₂)、Hyp(Bzl)、cisHyp(Et)、Hyp(Bzl(2-Cl))、cisHyp(Bzl(2-Cl))、cisHyp(Bzl(3-Cl))、cisHyp(Bzl(4-Cl))、Hyp(Bzl(3-Cl))、Hyp(Bzl(4-Cl))、Hyp(Bzl(2-Me))、Hyp(Bzl(3-Me))、Hyp(Bzl(3-OMe))、Hyp(Bzl(4-Me))、Hyp(Bzl(4-OCHF₂))、cisHyp(Bzl(2-Me))、cisHyp(Bzl(3-Me))、cisHyp(Bzl(3-OMe))、cisHyp(Bzl(4-Me))、cisHyp(Bzl(4-OCHF₂))、Methagly、MeAsp、Pro(4-keto)、Pic(2)(4-Oxo)、Mor(3)、Thioprop、MeAla(4-Thz)、MeSer(3-F-5-Me-Pyr)、MeTyr(3-F)、MeAla(3-Pyr-4-CN)、Ahpe(2)、Hyp(3-Me-Pyr)、cisHyp(3-Me-Pyr)、cisHyp(Et(2-F2))、Hyp(Et(2-F2))、Tyr(Me)、Phe(4-CF₃)、Phe(4-Cl)、Phe(2-CF₃)、Phe(2-Cl)、Phe(2-Me)、Phe(2-OMe)、Phe(3-CF₃)、MeAbu(pip-3-F2)、MeAsn(pip-4-F2)、Pro(4-pip-4-F2)、cisPro(4-pip-4-F2)、MeAsp(OAl)、Pro(4R-Tri)、Pro(4S-Tri)、Ser(Ph)、IDC、Pro(4R-Ph)、Pro(4S-Ph)、MeAla(3-Pyr-4-OMe)、

MeAla (3-Pyr-4-CF₃)、MeAla (3-Pyr-5-Me)、MeAla (3-Pyr-5-OMe)、MeAla (4-Pyr)、MeAla (3-Pyr-4-Me)、Hyp (3-thie-Me)、PhGly、cisHyp (2-EtOH)、Hyp (2-EtOH)、Phe (2-OCF₃)、BnGly、(3-Thienyl) Gly、(Ph-3-Cl) Gly、(Ph-4-Cl) Gly、(F₂cBucBu) Gly、(OxeMe) Gly、(OxecBu) Gly、D-Ala、D-MeSer (iPen)、D-MeSer、D-Mor (3)、D-MePhe、D-MeAbu、MePhe (4-CHF₂)、MeAbu (3-Pyr)、MeAbu (4-Pyr)、MeAbu (THPdene)、MeAbu (THP)、MeAbu (BocAzedene)、MeAbu (BocAze)、(pip (4-F₂) Et) Gly、(pip (4-F₂) nPr) Gly、(Et (2-F₂) OEt) Gly、(MeOEtOEt) Gly、(Et (2-F₃) OEt) Gly、(4-pyr-Et) Gly、(3-pyr-Et) Gly、(4-pyr-Me) Gly、(3-pyr-Me) Gly、AllylGly、(HOEt) Gly、(HOiPrallyl) Gly、(DMFallyl) Gly、(HOEtallyl) Gly、(5-OH-nPent) Gly、MeAsn (Aze-3-F₂)、MeAbu (Aze-3-F₂)、(Me₂NCONPr) Gly、(HOTBuallyl) Gly、(HOTBuOEt) Gly、(DMAOEt) Gly、(MeOMeallyl) Gly、MeGln (Me₂)、MeGln (Aze-3-F₂)、MeGln (Aze)、MeGln (pip)、MeGln (pyrro)、MeGln (mor)、MeAsn (Me₂)、MeAsn (Aze)、MeAsn (pip)、MeAsn (pyrro)、MeAsn (mor)、MePhe (3-OMe)、MePhe (3-I)、EtPhe (2-Cl)、(4-Me-piz-Et) Gly、(Aze (3) Et) Gly、(H₂NEtOEt) Gly、(H₂NnBu) Gly、(Me₂NEtOEt) Gly、(MeNEtOEt) Gly、(piz-Et) Gly。

[0498] 在一个方式中,式(1)中,R₉是氢、C₁-C₆烷基、C₂-C₆烯基、C₁-C₆烷氧基C₁-C₆烷基、C₃-C₈环烷基C₁-C₆烷基、C₇-C₁₄芳烷基、或5~10元杂芳基C₁-C₆烷氧基C₁-C₆烷基,其中的每一个任选被独立地选自由卤素、羟基、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)、以及C₁-C₆烷基磺酰基所组成的组中的一个或多个基团所取代。

[0499] 作为R₉优选为氢、C₁-C₆烷基、C₁-C₆卤代烷基、C₂-C₆烯基、C₁-C₆烷氧基C₁-C₆烷基(该C₁-C₆烷氧基C₁-C₆烷基任选被氨基羰基(该氨基是-NH₂、单C₁-C₆烷基氨基、二C₁-C₆烷基氨基、或4~8元环状氨基)、羟基、或任选被一个或多个卤素取代的5~10元杂芳基取代)、C₃-C₈环烷基C₁-C₆烷基、或C₇-C₁₄芳烷基(该C₇-C₁₄芳烷基任选被独立地选自由卤素、C₁-C₆烷基、C₁-C₆卤代烷基、C₁-C₆烷氧基、C₁-C₆卤代烷氧基、以及氰基所组成的组中的一个或多个基团取代)。

[0500] 作为R₉更优选为氢、C₁-C₆烷基、C₁-C₆氟烷基、C₂-C₃烯基,任选被单C₁-C₄烷基氨基羰基、羟基、或5~6元杂芳基取代的C₁-C₆烷氧基C₁-C₂烷基,其中所述5~6元杂芳基任选被一个或多个氟取代,任选被独立地选自由C₃-C₆环烷基C₁-C₂烷基、卤素、甲基、三氟甲基、甲氧基、三氟甲氧基以及氰基所组成的组中的一个或多个基团所取代的苄基或苄乙基。

[0501] 作为R₉更具体而言可以举出氢、甲基、乙基、异丙基、2-甲基丙基、2,2,2-三氟乙基、5,5-二氟戊基、甲氧基甲基、正丙氧基甲基、3-甲基丁氧基甲基、3-(二甲基氨基)3-氧代丙基、(2-羟基-2-甲基-丙氧基)甲基、(2-(叔丁基氨基)-2-氧代乙氧基)甲基、(5-氟吡啶-3-基)甲基、烯丙基、环己基甲基、苄基、苄乙基、2-氯苄基、3-氯苄基、4-氯苄基、2-氟苄基、3-氟苄基、4-氟苄基、2-甲基苄基、4-甲基苄基、2-甲氧基苄基、4-甲氧基苄基、2-(三氟甲基)苄基、3-(三氟甲基)苄基、4-(三氟甲基)苄基、2-(三氟甲氧基)苄基、3-(三氟甲氧基)苄基、4-(三氟甲氧基)苄基等。

[0502] 在一个方式中,式(1)中,R₉和P₉可以与R₉所键合的碳原子和P₉所键合的氮原子一起形成4~7元饱和杂环。

[0503] 在R₉和P₉形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0504] 在一个方式中,式(1)中, R_9 和 Q_9 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0505] 在 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0506] 在一个方式中,式(1)中除了 R_9 和 P_9 形成4~7元饱和杂环的情况之外, P_9 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。作为 P_9 优选氢或 C_1 - C_6 烷基,更优选氢、甲基、正丙基、正丁基。

[0507] 在一个方式中,除了 R_9 和 Q_9 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_9 为氢或 C_1 - C_6 烷基,优选为氢或甲基。

[0508] 对于 R_9 和 Q_9 而言,优选 R_9 是 C_1 - C_6 烷基、 C_2 - C_6 烯基、或者是 C_7 - C_{14} 芳烷基,并且 Q_9 是 C_1 - C_6 烷基,或者 R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0509] 作为核心9,具体而言可以举出例如MeAla、Ala、MeLeu、MeCha、MeVal、MeSer(tBuOH)、MeSer(NtBu-Aca)、Val、Leu、MeSer(nPr)、Me Hnl(7-F2)、MeSer(iPen)、Ser(nPr)、Abu(4-F3)、Abu、Ser(Me)、Gly、nBuGly、nPrGly、MePhe、MeHph、MePhe(4-Cl)、MePhe(2-F)、MePhe(3-F)、MePhe(4-F)、MePhe(2-Cl)、MePhe(3-Cl)、MePhe(2-Me)、MePhe(4-Me)、MePhe(2-CF3)、MePhe(3-CF3)、MePhe(4-CF3)、MeTyr(Me)、MePhe(2-OCF3)、MePhe(3-OCF3)、MePhe(4-OCF3)、D-Pro、Phe、Ser(NtBu-Aca)、MeSer(3-F-5-Me-Pyr)、D-Ala、MeGln(Me2)、MeAib、Aib、cLeu、cHex、cVal、(Me)Phe、MecLeu、D-(Me)Abu、D-(Me)Algly、l-ACPrC、(Me)Abu、(Me)Algly、(Me)Leu、Athpc、MePhe(2-OMe)、Me(Me)Phe、D-Val、D-Algly。

[0510] 在一个方式中,式(1)中, R_{10} 是 C_1 - C_6 烷基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基,其中的每一个任选被独立地选自自由卤素、羟基、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代。

[0511] 作为 R_{10} 优选为 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_1 - C_6 羟烷基、 C_1 - C_6 烷基磺酰基 C_1 - C_6 烷基、 C_2 - C_6 炔基、任选被一个或多个卤素取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_3 - C_8 环烷基、 C_3 - C_8 环烷基 C_1 - C_6 烷基、 C_3 - C_8 环烷氧基 C_1 - C_6 烷基、或 C_7 - C_{14} 芳烷基。

[0512] 作为 R_{10} 更优选为 C_1 - C_6 烷基、 C_1 - C_6 氟烷基、 C_1 - C_4 羟烷基、甲磺酰基 C_1 - C_2 烷基、 C_2 - C_3 炔基、任选被一个或多个氟取代的 C_1 - C_4 烷氧基 C_1 - C_2 烷基、 C_3 - C_6 环烷基、 C_3 - C_6 环烷基 C_1 - C_2 烷基、 C_3 - C_6 环烷氧基 C_1 - C_2 烷基、苄基、苄乙基。

[0513] 作为 R_{10} 更具体而言可以举出甲基、乙基、正丙基、异丙基、2-甲基丙基、1-甲基丙基、正丁基、2-甲基丁基、3-甲基丁基、正戊基、炔丙基、3,3-二氟丁基、5,5-二氟戊基、甲氧基甲基、1-甲氧基乙基、2-甲氧基乙基、正丙氧基甲基、1-羟乙基、环丙氧基甲基、环丁氧基甲基、(2,2,2-三氟乙氧基)甲基、2-甲基磺酰基乙基、环丙基、环丁基、环戊基、环己基、环丙基甲基、环丁基甲基、环戊基甲基、环己基甲基、苄基、苄乙基等。

[0514] 在一个方式中,式(1)中, R_{10} 和 P_{10} 可以与 R_{10} 所键合的碳原子和 P_{10} 所键合的氮原子一起形成4~7元饱和杂环。

[0515] 在 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷

环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0516] 在一个方式中,式(1)中, R_{10} 和 Q_{10} 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0517] 在 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0518] 在一个方式中,式(1)中除了 R_{10} 和 P_{10} 形成4~7元饱和杂环的情况之外, P_{10} 是氢或 C_1 - C_6 烷基,该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)所组成的组中的一个或多个基团所取代。作为 P_{10} 优选为氢或 C_1 - C_6 烷基,具体而言可以举出例如氢、甲基。

[0519] 在一个方式中,除了 R_{10} 和 Q_{10} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{10} 为氢或 C_1 - C_6 烷基,优选为氢。

[0520] 作为核心10,具体而言可以举出例如MeAla、MeLeu、MeCha、MeVal、MeAla(cPent)、MeAla(cBu)、MeAla(cPr)、MeChg、MeGly(cPent)、MeGly(cBu)、MeGly(cPr)、MeAbu、MeNva、MeNle、Val、Leu、MeNva(5-F2)、MeHle、MeIle、MeSer(nPr)、MeSer(cPr)、MeHnl、MeHnl(7-F2)、MePRA、MeSer(Me)、MeThr、MeSer(cBu)、MeSer(Tfe)、MeThr(Me)、MeHse(Me)、MeMet(02)、Ile、Nle、Chg、Ala(cBu)、Gly(cPent)、Hle、Nva、Phe、Hph。

[0521] 在一个方式中,式(1)中, R_{11} 是氢、 C_1 - C_6 烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基、 C_7 - C_{14} 芳烷基、或氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基),其中的每一个任选被独立地选自由卤素、氧代、羟基、 C_1 - C_6 烷基、4~7元杂环基、氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)、以及 C_1 - C_6 烷基磺酰基组成的组中的一个或多个基团所取代,或者 R_{11} 是包含1~4个氨基酸残基的肽链。在 R_{11} 是包含1~4个氨基酸残基的肽链的情况下,构成该肽链的1~4个氨基酸残基可以是天然氨基酸残基也可以是非天然氨基酸残基,并且可以相同也可以不同。

[0522] 当核心11为 α -氨基酸(即 L_{11} 为单键)时, R_{11} 优选为氢、任选被羟基取代的 C_1 - C_6 烷氧基 C_1 - C_6 烷基、任选被一个或多个卤素取代的 C_7 - C_{14} 芳烷基。

[0523] 当核心11为 α -氨基酸时,作为 R_{11} 更优选为氢、任选被羟基取代的 C_1 - C_6 烷氧基 C_1 - C_2 烷基、任选被氟取代的苄基,具体而言可以举出氢、(2-羟基-2-甲基-丙氧基)甲基、苄基、3-氟苄基、4-氟苄基。

[0524] 当核心11为 β -氨基酸(即 L_{11} 为 $-CHM_{11}-$)时, R_{11} 优选为氢、 C_1 - C_6 烷基、 C_1 - C_6 卤代烷基、 C_2 - C_6 烯基、 C_2 - C_6 炔基、 C_1 - C_6 烷氧基 C_1 - C_6 烷基(该 C_1 - C_6 烷氧基 C_1 - C_6 烷基任选被羟基、或氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)取代)、任选被一个或多个卤素取代的 C_7 - C_{14} 芳烷基、或氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,该环状氨基任选进一步被一个或多个卤素、一个或多个氧代、一个或多个 C_1 - C_6 烷基、或4~7元杂环基所取代)。

[0525] 当核心11为 β -氨基酸时, R_{11} 更优选氢、 C_1 - C_6 烷基、 C_1 - C_6 氟烷基、 C_2 - C_3 烯基、 C_2 - C_3 炔基、任选被单 C_1 - C_4 烷基氨基羰基取代的 C_1 - C_6 烷氧基 C_1 - C_2 烷基、二甲基氨基羰基、任选被一

个或多个氟原子、 C_1 - C_4 烷基或4~7元杂环基取代的4~8元环状氨基羰基、苄基、苯乙基。

[0526] 当核心11为 β -氨基酸时,作为 R_{11} 具体而言可以举出氢、甲基、异丁基、三氟甲基、烯丙基、丙-2-炔-1-基、(异戊氧基)甲基、{2-(叔丁基氨基)-2-氧代乙氧基}甲基、二甲基氨基羰基、氮杂环丁烷基羰基、吡咯烷基羰基、3,3-二甲基吡咯烷基羰基、3,3,4,4-四氟吡咯烷基羰基、4-甲基哌啶基羰基、4-(叔丁基)-哌啶基羰基、3,3,4,4,5,5-六氟哌啶基羰基、3,3-二氟哌啶基羰基、4,4-二氟哌啶基羰基、哌啶基羰基、吗啉代羰基、噁唑烷-3-基羰基、3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基羰基、1,1-二氧硫代吗啉基羰基、1-(氧杂环丁烷-3-基)-哌嗪-4-基羰基、苯乙基等。

[0527] 当核心11的 L_{11} 为 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 或 $-(CH_2)_nS(O)_2(CH_2)_m-$ 时, R_{11} 优选为氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基)。

[0528] 在一个方式中,式(1)中, R_{11} 和 P_{11} 可以与 R_{11} 所键合的碳原子和 P_{11} 所键合的氮原子一起形成4~7元饱和杂环。

[0529] 在 R_{11} 和 P_{11} 形成4~7元饱和杂环的情况下,作为4~7元饱和杂环优选氮杂环丁烷环、吡咯烷环、哌啶环、哌嗪环、吗啉环。

[0530] 在一个方式中,式(1)中, R_{11} 和 Q_{11} 可以与它们所键合的碳原子一起形成3~8元脂环或4~7元饱和杂环。

[0531] 在 R_{11} 和 Q_{11} 形成3~8元脂环或4~7元饱和杂环的情况下,作为3~8元脂环优选环丙烷环、环丁烷环、环戊烷环、环己烷环,作为4~7元饱和杂环优选四氢呋喃环、四氢吡喃环。

[0532] 在一个方式中,式(1)中,当核心11为 β -氨基酸时, R_{11} 和 M_{11} 可以与 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成3~8元脂环。

[0533] 在 R_{11} 和 M_{11} 形成3~8元脂环的情况下,作为3~8元脂环优选环戊烷环、环己烷环。

[0534] 在一个方式中,式(1)中,当核心11为 β -氨基酸时,除了 R_{11} 和 M_{11} 形成3~8元脂环的情况之外, M_{11} 是氢。

[0535] 在一个方式中,式(1)中,除了 R_{11} 和 P_{11} 形成4~7元饱和杂环的情况之外, P_{11} 是氢或 C_1 - C_6 烷基,其中该 C_1 - C_6 烷基任选被独立地选自由卤素、羟基、 C_1 - C_6 烷氧基、氨基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基、或4~8元环状氨基,其中的每一个任选被卤素取代)、以及氨基羰基(该氨基是 $-NH_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基或4~8元环状氨基)所组成的组中的一个或多个基团所取代。

[0536] 作为 P_{11} 优选为氢或 C_1 - C_6 烷基。作为这样的 P_{11} 具体而言可以举出例如氢、甲基、乙基、正丙基等。

[0537] 在一个方式中,除了 R_{11} 和 Q_{11} 形成3~8元脂环或4~7元饱和杂环的情况之外, Q_{11} 为氢或 C_1 - C_6 烷基,优选为氢。

[0538] 在一个方式中, R_{11} 优选 $-CONR_{11A}R_{11B}$,其中 R_{11A} 和 R_{11B} 各自独立地表示氢或 C_1 - C_6 烷基(优选甲基),或者 R_{11A} 和 R_{11B} 与它们所键合的氮原子一起形成4~8元饱和杂环。该4~8元饱和杂环任选被独立地选自由卤素(优选氟)、1个或多个氧代、1个或多个 C_1 - C_6 烷基(优选 C_1 - C_4 烷基)以及4~7元杂环基(优选氧杂环丁烷-3-基)组成的组中的一个或多个基团取代。

[0539] 当核心11为 α -氨基酸时,作为核心11具体而言可以举出例如MeSer(tBuOH)、

MeGly、MePhe、MePhe (3-F)、MePhe (4-F)、D-MePhe。

[0540] 当核心11为 β -氨基酸时,作为核心11具体而言可以举出例如bAla、bMeAla、2-ACHxC、2-ACPnC、3-CF3-bAla、Asp-mor、Asp-mor (26-bicyc)、Asp-mor (S02)、Asp-NMe2、Asp-oxz、Asp-pip、Asp-pip (345-F6)、Asp-pip (4-Me)、Asp-pip-tBu、Asp-piz (oxe)、Asp-pyrro、Asp-pyrro (34-F4)、Asp-pyrro (3-Me2)、D-(Propargyl) Gly- (C#CH2)、D-3-Abu、D-3-MeAbu、D-Gly (Allyl)- (C#CH2)、D-Hph- (C#CH2)、D-Leu- (C#CH2)、D-MeAsp-pyrro、D-MeLeu- (C#CH2)、D-Pic (2)- (C#CH2)、D-Pro- (C#CH2)、D-Ser (iPen)- (C#CH2)、D-Ser (NtBu-Aca)- (C#CH2)、EtAsp-pip、MeAsp-aze、MeAsp-mor、MeAsp-mor (26-bicyc)、MeAsp-mor (S02)、MeAsp-NMe2、MeAsp-oxz、MeAsp-pip、MeAsp-pip (345-F6)、MeAsp-pip (3-F2)、MeAsp-pip (4-F2)、MeAsp-pip (4-Me)、MeAsp-piz (oxe)、MeAsp-pyrro、MeAsp-pyrro (34-F4)、MeAsp-pyrro (3-Me2)、nPrAsp-pip。

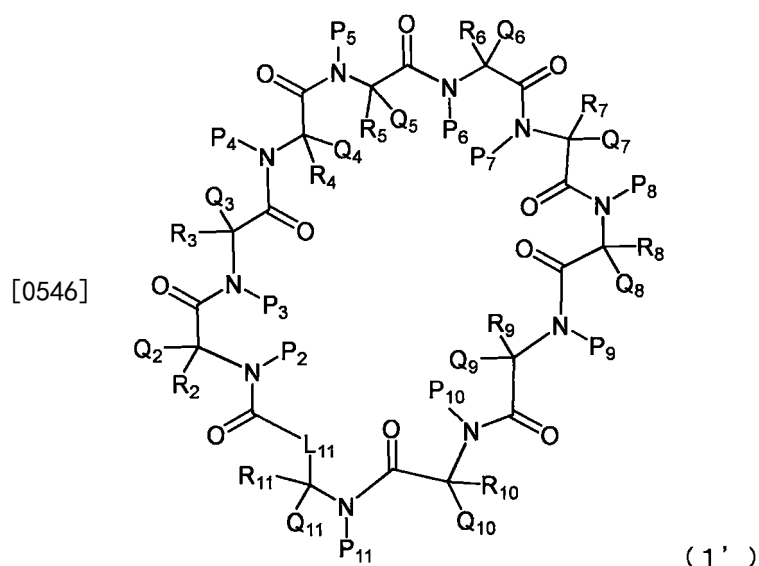
[0541] 在 L_{11} 为 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 或 $-(CH_2)_nS(O)_2(CH_2)_m-$ 时,作为核心11具体而言可以举出例如MeCys (AcOH)-NMe2。

[0542] 在一个方式中,式(1)中, $P_1 \sim P_{11}$ 中的至少3个并非是氢。

[0543] 在一个方式中,式(1)中,优选 $P_1 \sim P_{11}$ 中的至少3个、至少4个、至少5个或至少6个是 C_1-C_6 烷基,作为该 C_1-C_6 烷基优选甲基或乙基。

[0544] 在一个方式中,本发明的化合物可以是所述式(1)中,式中的 $-CO-L_1-$ 或 $-CO-L_{11}-$ 的一者被 $-(CH_2)_nC\equiv CCH_2S(CH_2)_m-$ 、 $-(CH_2)_nCH=CHCH_2S(CH_2)_m-$ 或 $-(CH_2)_{n+3}S(CH_2)_m-$ 所置换而成的化合物,其中n为1、2或3,m为1或2。 $-S-$ 可以被氧化成 $-S(O)-$ 或 $-S(O)_2-$ 。其中,当 $-CO-L_1-$ 被 $-(CH_2)_nC\equiv CCH_2S(CH_2)_m-$ 、 $-(CH_2)_nCH=CHCH_2S(CH_2)_m-$ 或 $-(CH_2)_{n+3}S(CH_2)_m-$ 所置换时, L_{11} 是单键,当 $-CO-L_{11}-$ 被 $-(CH_2)_nC\equiv CCH_2S(CH_2)_m-$ 、 $-(CH_2)_nCH=CHCH_2S(CH_2)_m-$ 或 $-(CH_2)_{n+3}S(CH_2)_m-$ 所置换时, L_1 是单键。式(1)中的 L_1 和 L_{11} 以外的基团如上所述。

[0545] 在一个方式中,本发明涉及由下式(1')表示的环状肽化合物或其盐、或它们的溶剂合物。



[0547] 式(1')中, L_{11} 为 $-CHM_{11}-$ 、 $-(CH_2)_nS(CH_2)_m-$ 、 $-(CH_2)_nS(O)(CH_2)_m-$ 或 $-(CH_2)_nS(O)_2(CH_2)_m-$,

[0548] n和m各自独立地为1或2,

[0549] $R_2 \sim R_{11}$ 、 $P_2 \sim P_{11}$ 、 $Q_2 \sim Q_{11}$ 以及 M_{11} 的含义分别与上式 (1) 中的 $R_2 \sim R_{11}$ 、 $P_2 \sim P_{11}$ 、 $Q_2 \sim Q_{11}$ 以及 M_{11} 的含义相同。

[0550] 在式 (1') 中, 环由 10 个氨基酸残基构成。与式 (1) 同样, 将具有式中的 P_2 、 Q_2 和 R_2 的氨基酸残基称为核心 2 的氨基酸残基, 将具有 P_3 、 Q_3 和 R_3 的氨基酸残基称为核心 3 的氨基酸残基, 将具有 P_4 、 Q_4 和 R_4 的氨基酸残基称为核心 4 的氨基酸残基, 将具有 P_5 、 Q_5 和 R_5 的氨基酸残基称为核心 5 的氨基酸残基, 将具有 P_6 、 Q_6 和 R_6 的氨基酸残基称为核心 6 的氨基酸残基, 将具有 P_7 、 Q_7 和 R_7 的氨基酸残基称为核心 7 的氨基酸残基, 将具有 P_8 、 Q_8 和 R_8 的氨基酸残基称为核心 8 的氨基酸残基, 将具有 P_9 、 Q_9 和 R_9 的氨基酸残基称为核心 9 的氨基酸残基, 将具有 P_{10} 、 Q_{10} 和 R_{10} 的氨基酸残基称为核心 10 的氨基酸残基, 将具有 P_{11} 、 Q_{11} 、 R_{11} 和 L_{11} 的氨基酸残基称为核心 11 的氨基酸残基。

[0551] 在一个方式中, 式 (1') 中, L_{11} 是 $-\text{CHM}_1-$ 、 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 。 M_{11} 的含义与式 (1) 中的 M_{11} 的含义相同。

[0552] 当 L_{11} 为 $-\text{CHM}_{11}-$ 时, M_{11} 可以是氢, 或者 M_{11} 可以与 R_{11} 、 R_{11} 所键合的碳原子和 M_{11} 所键合的碳原子一起形成 3~8 元脂环。作为 3~8 元脂环优选环戊烷环、环己烷环。

[0553] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 时, 作为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 具体而言可以举出例如 $-\text{CH}_2\text{SCH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{SCH}_2-$ 、 $-\text{CH}_2\text{SCH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{SCH}_2\text{CH}_2-$ 等。

[0554] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 时, 作为 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 具体而言可以举出例如 $\text{CH}_2\text{S}(\text{O})\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})\text{CH}_2-$ 、 $-\text{CH}_2\text{S}(\text{O})\text{CH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})\text{CH}_2\text{CH}_2-$ 等。

[0555] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, 作为 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 具体而言可以举出例如 $\text{CH}_2\text{S}(\text{O})_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})_2\text{CH}_2-$ 、 $-\text{CH}_2\text{S}(\text{O})_2\text{CH}_2\text{CH}_2-$ 、 $-\text{CH}_2\text{CH}_2\text{S}(\text{O})_2\text{CH}_2\text{CH}_2-$ 等。

[0556] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, R_{11} 优选为氨基羰基 (该氨基是 $-\text{NH}_2$ 、单 C_1 - C_6 烷基氨基、二 C_1 - C_6 烷基氨基或 4~8 元环状氨基)。

[0557] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, 作为 R_{11} 更优选为 $-\text{CONR}_{11A}R_{11B}$, 其中 R_{11A} 和 R_{11B} 各自独立地表示氢或 C_1 - C_6 烷基 (优选甲基), 或者 R_{11A} 和 R_{11B} 与它们所键合的氮原子一起形成 4~8 元饱和杂环。该 4~8 元饱和杂环任选被独立地选自一个或多个卤素 (优选氟)、一个或多个氧代、一个或多个 C_1 - C_6 烷基 (优选 C_1 - C_4 烷基) 以及 4~7 元杂环基 (优选氧杂环丁烷-3-基) 组成的组中的一个或多个基团取代。作为 R_{11} 具体而言可以举出例如二甲氨基羰基。

[0558] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, Q_{11} 优选为氢或 C_1 - C_6 烷基, 更优选为氢。

[0559] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, P_{11} 优选为氢或 C_1 - C_6 烷基。作为这样的 P_{11} 具体而言可以举出例如氢、甲基、乙基、正丙基等。

[0560] 当 L_{11} 为 $-(\text{CH}_2)_n\text{S}(\text{CH}_2)_m-$ 、 $-(\text{CH}_2)_n\text{S}(\text{O})(\text{CH}_2)_m-$ 、或 $-(\text{CH}_2)_n\text{S}(\text{O})_2(\text{CH}_2)_m-$ 时, 作为核心 11 具体而言可以举出例如 $\text{MeCys}(\text{AcOH})-\text{NMe}_2$ 。

[0561] 式 (1') 的核心 2~11 的各核心中的优选基团可以与式 (1) 的相应的各核心中的优选基团相同。另外, 作为式 (1) 的核心 2~11 列举的具体氨基酸可以用作式 (1') 相应的各核心的氨基酸。

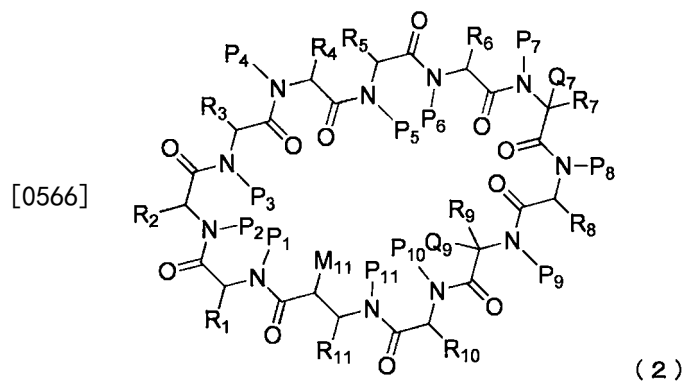
[0562] 作为由式 (1') 表示的环状肽化合物具体而言可以举出如下化合物:

[0563] (2172) (3S, 9S, 18S, 24R, 27S, 33S) -18-[(2S) -丁烷-2-基]-3-[2-[3-氯-4-(三氟

甲基) 苯基] 乙基]-9-(环己基甲基)-27-环戊基-N,N,7,10,13,16,25,28-八甲基-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺,

[0564] (2173) (3S,9S,18S,24R,27S,33S)-18,27-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,25,28-八甲基-9-[(4-甲基苯基)甲基]-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺。

[0565] 在一个方式中,本发明的环状肽化合物可以是由下式(2)表示的环状肽化合物,下式(2)是对上述式(1)的进一步限定。



[0567] 式(2)中的各基团的定义与式(1)的各基团的定义相同。作为由式(2)表示的环状肽化合物可优选举出以下各基团。

[0568] R_1 是 C_1 - C_6 烷基(优选 C_1 - C_4 烷基,更优选甲基或2-甲基丙基), P_1 是 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基),和/或

[0569] R_2 是 C_1 - C_6 烷基(优选 C_3 - C_6 烷基,更优选1-甲基丙基), P_2 是氢或 C_1 - C_6 烷基(优选氢或 C_1 - C_3 烷基,更优选氢或甲基),和/或

[0570] R_3 是氢或 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基), P_3 是氢或 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基),和/或

[0571] R_4 是氢并且 P_4 是 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基),或者 R_4 和 P_4 与 R_4 所键合的碳原子和 P_4 所键合的氮原子一起形成4~7元饱和杂环(优选氮杂环丁烷环、吡咯烷环或哌啶环,更优选氮杂环丁烷环或吡咯烷环),和/或

[0572] R_5 是 C_1 - C_6 烷氧基 C_1 - C_6 烷基(优选 C_2 - C_6 烷氧基 C_1 - C_2 烷基,更优选 C_3 - C_5 烷氧基甲基),任选被独立地选自由卤素(优选氟或氯)、 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基)、 C_1 - C_6 卤代烷基(优选 C_1 - C_3 氟烷基,更优选三氟甲基)以及 C_1 - C_6 烷氧基(优选 C_1 - C_3 烷氧基,更优选甲氧基)组成的组中的基团取代的 C_7 - C_{14} 芳烷基(优选苄基或苯乙基,更优选苄基), C_3 - C_8 环烷基(优选 C_3 - C_6 环烷基,更优选 C_5 - C_6 环烷基),或 C_3 - C_8 环烷基 C_1 - C_6 烷基(优选 C_3 - C_6 环烷基 C_1 - C_2 烷基,更优选 C_5 - C_6 环烷基甲基,进一步优选环己基甲基), P_5 是 C_1 - C_2 烷基(优选甲基、乙基),和/或

[0573] R_6 是氢或 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基)并且 P_6 是 C_1 - C_6 烷基(优选 C_1 - C_3 烷基,更优选甲基或乙基),或者 R_6 和 P_6 与 R_6 所键合的碳原子和 P_6 所键合的氮原子一起形成4~7元饱和杂环(优选氮杂环丁烷环、吡咯烷环或哌啶环,更优选吡咯烷环),和/或

[0574] R_7 是任选被独立地选自由卤素(优选氟、氯或碘)以及 C_1 - C_6 卤代烷基(优选 C_1 - C_3 氟

烷基,更优选三氟甲基)组成的组中的1~5个(优选1~3个)基团取代的 C_7-C_{14} 芳烷基(优选苄基或苯乙基), P_7 是氢, Q_7 是氢,和/或

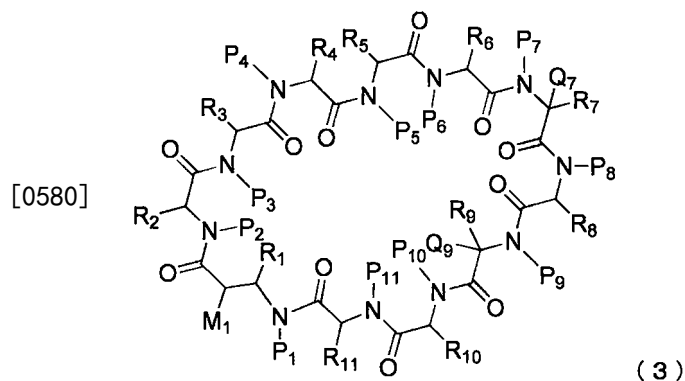
[0575] R_8 是 C_1-C_6 烷基(优选 C_1-C_4 烷基,更优选2-甲基丙基、异丙基或正丁基)、 C_2-C_6 炔基(优选 C_2-C_3 炔基,更优选炔丙基)、任选被1~5个(优选1~3个)氟原子取代的4~8元环状氨基羰基 C_1-C_6 烷基(优选4~8元环状氨基羰基 C_1-C_2 烷基,更优选4~8元环状氨基羰基甲基)、5~10元杂芳基 C_1-C_6 烷基(优选5~10元杂芳基 C_1-C_2 烷基,更优选5~10元杂芳基甲基)、或任选被1~3个卤素原子(优选氯)取代的 C_7-C_{14} 芳烷基(优选苄基或苯乙基),并且 P_8 是氢、 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基)、任选被1~5个(优选1~3个) C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基)取代的4~8元环状氨基 C_1-C_6 烷基(优选哌嗪基 C_1-C_2 烷基)、4~7元杂环基 C_1-C_6 烷基(优选4~7元杂环基 C_1-C_2 烷基,更优选氮杂环丁烷基乙基)、氨基(NH_2)、 C_1-C_6 烷基氨基(优选甲基氨基)、或被二- C_1-C_6 烷基氨基(优选二甲基氨基)取代的 C_1-C_6 烷氧基 C_1-C_6 烷基(优选 C_1-C_3 烷氧基 C_1-C_2 烷基,更优选乙氧基乙基)、或氨基(NH_2) C_1-C_6 烷基;或者 R_8 和 P_8 与 R_9 所键合的碳原子和 P_9 所键合的氮原子一起形成4~7元饱和杂环(优选氮杂环丁烷环、吡咯烷环、哌啶环,更优选氮杂环丁烷环或吡咯烷环),其中4~7元饱和杂环任选被1~5个(优选1~3个)卤素(优选氟)或 C_1-C_6 烷氧基(优选 C_1-C_3 烷氧基,更优选甲氧基或乙氧基)取代,和/或

[0576] R_9 是苄基并且 Q_9 为氢,或者 R_9 和 Q_9 各自独立地为 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),或者 R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环(优选3~6元脂环,更优选环丁烷环或环戊烷环), P_9 是氢或 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),和/或

[0577] R_{10} 是 C_1-C_6 烷基(优选 C_1-C_4 烷基,更优选异丙基、1-甲基丙基或2-甲基丙基)或 C_3-C_8 环烷基(优选 C_3-C_6 环烷基,更优选环戊基或环己基), P_{10} 是氢或 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),和/或

[0578] R_{11} 是 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基)、二- C_1-C_6 烷基氨基羰基(优选二- C_1-C_3 烷基氨基羰基,更优选二甲基氨基羰基)或4~8元环状氨基羰基(优选氮杂环丁烷基羰基、吡咯烷基羰基、哌啶基羰基、4-吗啉基羰基或3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基羰基), P_{11} 是氢或 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基), M_{11} 是氢。

[0579] 在一个方式中,本发明的环状肽化合物可以是由下式(3)表示的环状肽化合物,下式(3)是对上述式(1)的进一步限定。



[0581] 式(3)中的各基团的定义与式(1)的各基团的定义相同。作为由式(3)表示的环状肽化合物可优选举出以下各基团。

[0582] R_1 是氢, P_1 是氢或 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基), M_1 是氢,和/或

[0583] R_2 是氢或 C_1-C_6 烷基(优选 C_3-C_6 烷基,更优选1-甲基丙基), P_2 是氢或 C_1-C_6 烷基(优选氢或 C_1-C_3 烷基,更优选氢或甲基),和/或

[0584] R_3 是氢, P_3 是 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),和/或

[0585] R_4 是氢, P_4 是 C_1-C_6 烷基(优选氢、 C_1-C_3 烷基,更优选甲基),和/或

[0586] R_5 是 C_3-C_8 环烷基 C_1-C_6 烷基(优选 C_3-C_6 环烷基 C_1-C_2 烷基,更优选 C_5-C_6 环烷基甲基), P_5 是 C_1-C_2 烷基(优选甲基),和/或

[0587] R_6 是氢, P_6 是 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),和/或

[0588] R_7 是任选被独立地选自自由卤素和 C_1-C_6 卤代烷基(优选 C_1-C_3 氟代烷基,更优选三氟甲基)组成的组中的1~5个(优选1~3个)基团取代的 C_7-C_{14} 芳烷基(优选苄基或苯乙基,更优选苄基), P_7 是氢, Q_7 是氢,和/或

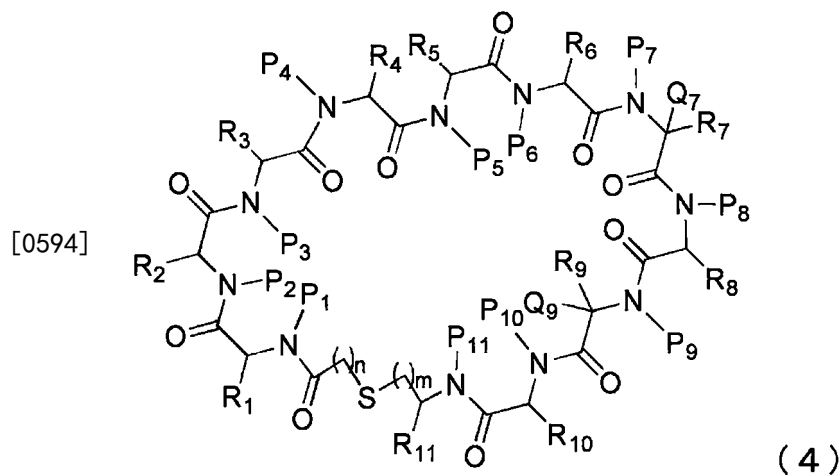
[0589] R_8 和 P_8 与 R_8 所键合的碳原子和 P_8 所键合的氮原子一起形成4~7元饱和杂环(优选氮杂环丁烷环、吡咯烷环、哌啶环,更优选吡咯烷环),和/或

[0590] R_9 和 Q_9 与它们所键合的碳原子一起形成3~8元脂环(优选3~6元脂环,更优选环丁烷环、环戊烷环), P_9 是氢,和/或

[0591] R_{10} 是 C_3-C_8 环烷基(优选 C_3-C_6 环烷基,更优选环戊基或环己基), P_{10} 是 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基),和/或

[0592] R_{11} 是氢、任选被1~5个(优选1~3个)卤素(优选氟)取代的 C_7-C_{14} 芳烷基(优选苄基、苯乙基,更优选苄基)、任选被一个羟基取代的 C_1-C_6 烷氧基 C_1-C_6 烷基(优选 C_2-C_6 烷氧基 C_1-C_2 烷基,更优选 C_3-C_5 烷氧基甲基), P_{11} 为 C_1-C_6 烷基(优选 C_1-C_3 烷基,更优选甲基)。

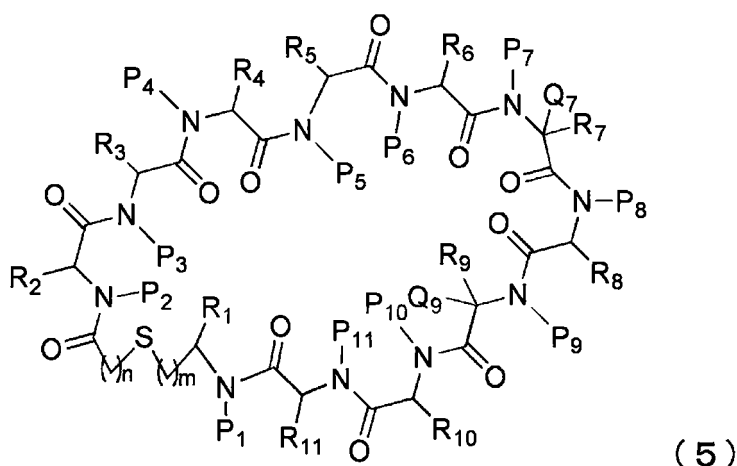
[0593] 在一个方式中,本发明的环状肽化合物可以是由下式(4)表示的环状肽化合物,下式(4)是对上述式(1)的进一步限定。



[0595] 式(4)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义分别与上式(2)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义相同, n 和 m 各自独立地为1或2。另外,式(4)中的-S-可以被氧化成-S(0)-或-S(0)₂⁻。

[0596] 在一个方式中,本发明的环状肽化合物可以是由下式(5)表示的环状肽化合物,下式(5)是对上述式(1)的进一步限定。

[0597]

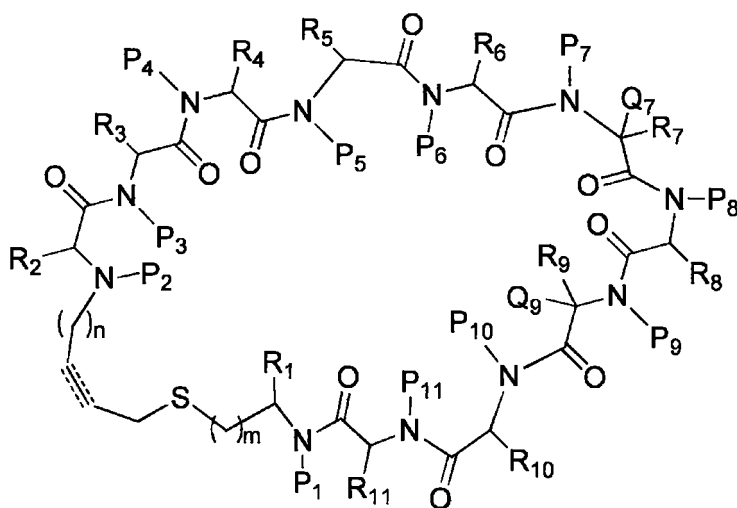


(5)

[0598] 式(5)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义分别与上式(2)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义相同, n 和 m 各自独立地为1或2。另外, 式(5)中的-S-可以被氧化成-S(O)-或-S(O)₂-。

[0599] 在一个方式中, 本发明的环状肽化合物可以是上式(1)中的-CO-L₁-被-(CH₂)_nC≡CCH₂S(CH₂)_m-、-(CH₂)_nCH=CHCH₂S(CH₂)_m-或-(CH₂)_{n+3}S(CH₂)_m-置换并且L₁₁是单键的、由下式(6)表示的化合物。

[0600]

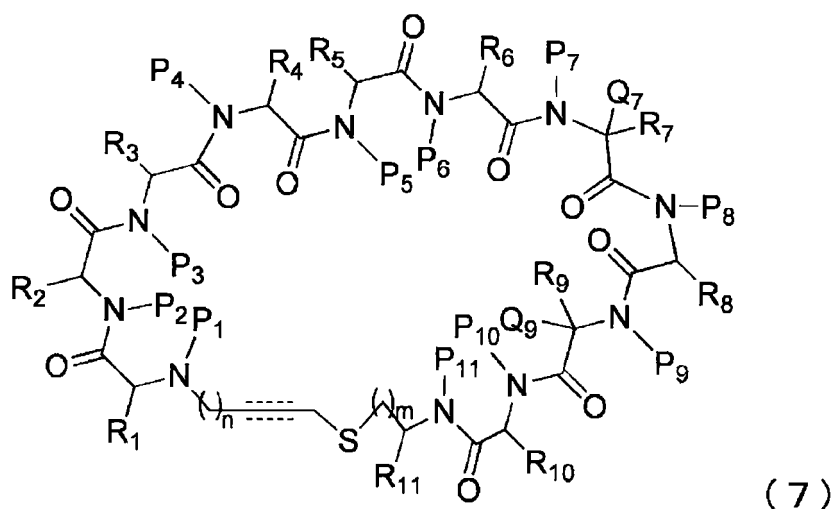


(6)

[0601] 式(6)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义分别与上式(2)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义相同, $\equiv$ 表示单键、双键或三键, n 为1、2或3, m 为1或2。另外, 式(6)中的-S-可以被氧化成-S(O)-或-S(O)₂-。

[0602] 在一个方式中, 本发明的环状肽化合物可以是上式(1)中的-CO-L₁-被-(CH₂)_nC≡CCH₂S(CH₂)_m-、-(CH₂)_nCH=CHCH₂S(CH₂)_m-或-(CH₂)_{n+3}S(CH₂)_m-置换并且L₁是单键的、由下式(7)表示的化合物。

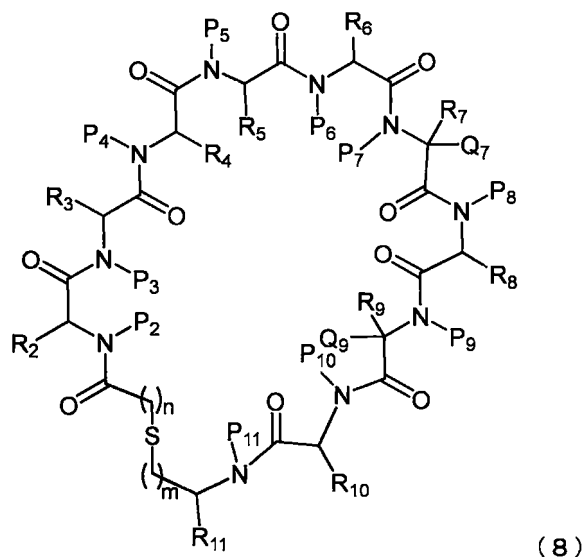
[0603]



[0604] 式(7)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义分别与上式(2)中的 $R_1 \sim R_{11}$ 、 $P_1 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义相同， --- 表示单键、双键或三键， n 为1、2或3， m 为1或2。另外，式(7)中的-S-可以被氧化成-S(0)-或-S(0)₂-。

[0605] 在一个方式中，本发明可以是由下式(8)表示的环状肽化合物。

[0606]



[0607] 式(8)中的 $R_2 \sim R_{11}$ 、 $P_2 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义分别与上式(1)中的 $R_2 \sim R_{11}$ 、 $P_2 \sim P_{11}$ 、 Q_7 以及 Q_9 的含义相同， n 和 m 各自独立地为1或2。另外，式(8)中的-S-可以被氧化成-S(0)-或-S(0)₂-。

[0608] 作为本发明的环状肽化合物具体而言可以举出如下化合物。需要说明的是，以下化合物(1)至(762)、(764)~(845)、(847)~(1027)、(1029)~(1146)、(1148)~(2186)的结构式示于表24中。即，对以下化合物附上的序号分别对应于对表24中记载的化合物附上的序号。

[0609] (1) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,18-双(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮，

[0610] (2) (8S,11S,17S,26S,29S,33R,36S)-17-(环己基甲基)-11-[2-[3-氟-4-(三氟甲

基) 苯基] 乙基] -8,29,36-三异丁基-6,15,18,21,24,30,33,34-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0611] (3) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0612] (4) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0613] (5) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-33-乙基-11-异丁基-N,N,5,6,12,16,19,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯(日文:ウンデカアザシクロテトラトリアコンチン,英文:

undecaazacyclotetratriacontine)-21,1'-环戊烷]-15-甲酰胺,

[0614] (6) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-[[6-(三氟甲基)-3-吡啶基] 甲基] 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0615] (7) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-8-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0616] (8) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-(环戊基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0617] (9) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0618] (10) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-

36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-[[6-(三氟甲基)-3-吡啶基]甲基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0619] (11) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0620] (12) N-[4-[(3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]丁基]氨基甲酸烯丙酯,

[0621] (13) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-9-(2-苯基乙基)-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0622] (14) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环丙基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0623] (15) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0624] (16) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0625] (17) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-8-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0626] (18) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-9,18-双[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,

27,30,33-十一酮,

[0627] (19) (3S,9S,12S,18S,27S,30S,34R)-12-[2-(4-氯苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0628] (20) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0629] (21) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-18-[(4-氯苯基)甲基]-12-[(3,5-二氟苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0630] (22) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异戊基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0631] (23) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-36-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0632] (24) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0633] (25) (6S,12S,21S,24S,26aR,29aR,32S,35S,37aS)-35-苄基-21-((S)-仲丁基)-12-(4-氯苄基)-32-异丁基-10,13,16,19,24,25,33,36-八甲基-6-(4-(三氟甲基)苯乙基)二十六氢-1H-环戊并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5,8,11,14,17,20,23,26,31,34,37(37aH)-十一酮,

[0634] (26) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吡咯烷-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0635] (27) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-(异戊氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺

[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0636] (28) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-(4-氟苯基)乙基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0637] (29) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-16-乙基-3-异丙基-4,7,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0638] (30) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0639] (31) (4R,7S,13S,16S,22S,31S,34S)-22-(环己基甲基)-7,13-二异丁基-4,8,10,10,14,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[0640] (32) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0641] (33) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0642] (34) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0643] (35) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0644] (36) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(4-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0645] (37) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环戊基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0646] (38) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,35-双(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0647] (39) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0648] (40) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0649] (41) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(丙氧基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0650] (42) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(3-氯苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0651] (43) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(2-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0652] (44) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-

氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0653] (45) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-8-(环丁氧基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0654] (46) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-3,6,9-三异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0655] (47) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0656] (48) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0657] (49) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0658] (50) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0659] (51) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0660] (52) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0661] (53) N-叔丁基-2-[[(3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基) 甲基]-3,9-二异丁基-4,16,19,22,25,30,31-七甲基-27-[(1S) -1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基] 甲氧基] 乙酰胺,

[0662] (54) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-11-戊基-35-(4-(三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0663] (55) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0664] (56) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基)-26-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0665] (57) (6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0666] (58) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-环己基-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0667] (59) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0668] (60) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-(环戊基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0669] (61) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-8,36-二异丁基-9,15,18,21,24,29,30,33,37-九甲基-26-[(1S) -1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0670] (62) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0671] (63) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0672] (64) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11,15-二异丁基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0673] (65) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0674] (66) (3S,9S,18S,21S,25R,28S,34S,36R) -28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0675] (67) (3S,6S,9S,13S,16S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0676] (68) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(环丙基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0677] (69) (8S,11S,17S,26S,29S,33S,36S) -8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0678] (70) N-(叔丁基)-2-(((5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)甲氧基)乙酰胺,

[0679] (71) (3S,6S,10R,13S,16S,19S,22S,28S,34S) -16-苄基-28-[(4-氯苯基)甲基]-

19-异丁基-13-异丙基-6,7,10,14,17,20,26,29,32-九甲基-3-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,11,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,12,15,18,21,24,27,30,33-十一酮,

[0680] (72) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0681] (73) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0682] (74) (3S,9S,18S,21S,25R,28S,34S,36R)-9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0683] (75) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0684] (76) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-18'-异丁基-25'-异丙基-7',10',13',19',22',26'-六甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[0685] (77) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-异丙基-6,11,12,15,19,38-六甲基二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

[0686] (78) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(5,5-二氟戊基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0687] (79) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0688] (80) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -35- (环己基甲基) -18- 异丙基-11- ((R) -1-甲氧基乙基) -5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0689] (81) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21- 异丁基-28- 异丙基-7,10,13,16,22,25,26,29- 八甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0690] (82) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'- ((S) -仲丁基) -30'- (3-氯-4- (三氟甲基) 苯乙基) -36'- (2-氯苄基) -19'- 环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[0691] (83) (3S,9S,12S,18S,27S,30S,34R) -3- 丁基-18- [(4-氯苯基) 甲基] -12- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -9,30- 二异丁基-1,6,6,7,16,19,22,25,31,34- 十甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

[0692] (84) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -8- (环戊基甲基) -11- 异丁基-18- 异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0693] (85) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18- 二 ((S) -仲丁基) -29- (3,5-二氟-4- (三氟甲基) 苯乙基) -36- 乙基-25,25- 二氟-11- 异丁基-5,6,12,15,16,19,33-七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0694] (86) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -35- (环己基甲基) -5- ((2-羟基-2-甲基丙氧基) 甲基) -11- 异丁基-18- 异丙基-6,12,16,19,33,36-六甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0695] (87) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -18,35- 双 (环己基甲基) -11- 异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0696] (88) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9-

(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0697] (89) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0698] (90) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-苯基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0699] (91) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-((R)-1-羟基乙基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0700] (92) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0701] (93) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,29,31,31,32-十一甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0702] (94) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(5,5-二氟戊基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0703] (95) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(3-氟苄基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0704] (96) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苄基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-6,6,7,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0705] (97) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-N,N,9,15,18,21,24,30,37-九甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

[0706] (98) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-异丁基-5,6,11,12,15,19,32,33,36-九甲基-二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0707] (99) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0708] (100) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环丙基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0709] (101) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环丙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0710] (102) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0711] (103) (2aS,5S,11S,14S,20S,23S,30aS,33S,36S) -33-((S)-仲丁基)-14-丁基-11-(3-氯-4-(三氟甲基)苯乙基)-5-(4-氯苄基)-20-异丁基-4,7,16,17,17,22,35,36-八甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

[0712] (104) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(2,2,2-三氟乙基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0713] (105) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]

乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0714] (106) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环己基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0715] (107) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0716] (108) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0717] (109) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0718] (110) (3S,9S,18S,21S,25R,28S,34S)-21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(4-碘苯基)甲基]-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0719] (111) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[2-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0720] (112) (5S,8S,12S,15S,20aS,26S,32S,37aS)-5-((S)-仲丁基)-26-(4-氯苯乙基)-32-(环己基甲基)-8-异丁基-15-异丙基-9,13,16,30,33,36-六甲基-12-(哌啶-1-羰基)二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

[0721] (113) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-8,33,36-三异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0722] (114) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,25,29-七甲基-18-[(1S)-1-甲基丙基]-22-丙

基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0723] (115) (8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,16,19,32,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0724] (116) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]-16-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0725] (117) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(3-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0726] (118) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(1R)-1-羟基乙基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0727] (119) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-12-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0728] (120) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0729] (121) (3S,9S,18S,21S,25R,28S,34S) -9-[4-氯苯基]甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0730] (122) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0731] (123) (3S,9S,18S,21S,25R,28S,34S) -16-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-

甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0732] (124) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基) 甲基]-9,30-二异丁基-3-异丙基-4,7,10,16,19,22,25,31,34-九甲基-27-[(1S) -1-甲基丙基]-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0733] (125) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-9-丁基-12-[(3-碘苯基) 甲基]-3,30-二异丁基-18-[(4-甲氧基苯基) 甲基]-1,6,7,16,19,22,25,31-八甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0734] (126) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0735] (127) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-环丁基-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0736] (128) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0737] (129) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-6-(丙氧基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0738] (130) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基) 乙基]-9-异丁基-19-(甲氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0739] (131) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0740] (132) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊

基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0741] (133) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0742] (134) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0743] (135) (6'S,15'S,18'S,22'S,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-异丙基-7',10',13',18',19',23',26'-七甲基-22'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[0744] (136) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0745] (137) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-22-乙基-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0746] (138) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0747] (139) (5S,8S,12S,15S,20aS,26S,32S,37aS)-5-((S)-仲丁基)-32-(环己基甲基)-26-(3-氟-4-(三氟甲基)苯乙基)-8-异丁基-15-异丙基-9,13,16,30,33,36-六甲基-12-(哌啶-1-羰基)二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

[0748] (140) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧

杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0749] (141) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0750] (142) (6'S,12'S,21'S,24'S,27a'R,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-6'-(3-氟-4-(三氟甲基)苯乙基)-24'-异丁基-34'-异丙基-10',13',16',19',25',35'-六甲基二十六氢螺[环戊烷-1,37'-吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',33',36',39'(38'H)-十一酮,

[0751] (143) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[3-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0752] (144) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,12,16,19,33,36-七甲基-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0753] (145) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(5,5-二氟戊基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0754] (146) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(4-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0755] (147) (8S,11S,15S,18S,23aS,25S,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-6,12,16,19,33,36-六甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0756] (148) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-(甲氧基甲基)-7,10,13,16,22,26,29-七甲

基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0757] (149) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0758] (150) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0759] (151) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0760] (152) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0761] (153) (3S,9S,12S,18S,27S,30S,34R)-12-[2-(3-氯苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0762] (154) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(丙氧基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0763] (155) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,12,16,19,33,36-六甲基-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0764] (156) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-29-异丁基-36-异丙基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0765] (157) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙

基)-8-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0766] (158) (6S,9S,13R,16S,22S,25S,31S,34S)-31-[4-氯苯基]甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0767] (159) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0768] (160) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-乙基-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0769] (161) (3S,9S,18S,21S,25S,28S,34S)-21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[4-碘苯基]甲基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0770] (162) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-28-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0771] (163) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,12,16,19,33,36-六甲基-11-戊基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0772] (164) (3S,9S,18S,21S,25S,28S,34S)-18-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0773] (165) (3S,9S,12S,18S,27S,30S,34R)-9-丁基-18-[4-氯苯基]甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0774] (166) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-

羰基)-9-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0775] (167) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0776] (168) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-6-[(2-氯苯基)甲基]-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0777] (169) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0778] (170) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,6,6,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0779] (171) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(3,4-二氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0780] (172) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环丙基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0781] (173) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0782] (174) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-(2-(甲磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0783] (175) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-(2-甲氧基乙基)-5,6,12,16,19,33,36-七

甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0784] (176) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0785] (177) (8S,11S,17S,26S,29S,33S,36S)-11-[2-(4-氯苯基)乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0786] (178) (6S,9S,13R,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0787] (179) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[3-氯苯基]甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0788] (180) 3-((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)-N-甲基丙酰胺,

[0789] (181) (5S,8S,12R,15S,20aS,26S,32S,34aS,38aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-8-异丁基-15-异丙基-9,12,16,30,33-五甲基二十二氢-25H-螺[双(氮杂环丁二烯并)[1,2-g:1',2'-j]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,38(2H,11H,19H,34aH)-十一酮,

[0790] (182) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0791] (183) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊

烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0792] (184) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-18-[(4-氯苯基)甲基]-12-[(3-氟苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0793] (185) (6'S,9'S,13'R,16'S,21a'S,27'S,33'S,38a'S)-6'-((S)-仲丁基)-27'-(3-氯-4-(三氟甲基)苯乙基)-33'-(环己基甲基)-9'-异丁基-16'-异丙基-10',13',17',31',34',37'-六甲基二十二氢-1'H-螺[环戊烷-1,19'-二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',15',18',21',26',29',32',35',38'(12'H,20'H,38a'H)-十一酮,

[0794] (186) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(3-氯苄基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0795] (187) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0796] (188) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(4-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0797] (189) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-30-异丙基-4,10,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,25,28,31-十一氮杂双环[32.4.0]三十八烷-6,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0798] (190) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0799] (191) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0800] (192) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(间甲苯基甲基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂

螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0801] (193) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -18-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-8-(戊烷-3-基)三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[0802] (194) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(3-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0803] (195) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0804] (196) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0805] (197) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0806] (198) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (199) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苄基)甲基]-3,9-二异丁基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0807] (200) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(环丙基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0808] (201) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,

16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0809] (202) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-12-[(3-氯-5-氟-苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0810] (203) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0811] (204) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-7-环丙基-21-异丁基-28-异丙基-10,13,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0812] (205) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0813] (206) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(4-氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0814] (207) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0815] (208) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0816] (209) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,12,16,19,33,36-六甲基-11-戊基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0817] (210) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-乙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-

甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0818] (211) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0819] (212) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0820] (213) (4R,7S,13S,16S,22S,31S,34S) -16-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-(环己基甲基)-7,13-二异丁基-4,8,14,20,23,26,29-七甲基-31-[(1S)-1-甲基丙基]螺[1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-10,1'-环戊烷]-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[0821] (214) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0822] (215) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-22-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[0823] (216) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0824] (217) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8,29,36-三异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0825] (218) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-N,N,9,15,18,21,24,30,34,37-十甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

[0826] (219) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-3,9-二异丁基-4,6,6,

10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0827] (220) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0828] (221) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0829] (222) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(2,2,2-三氟乙基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0830] (223) (3S,9S,18S,21S,25R,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0831] (224) (3S,6S,9S,12S,18S,27S,30S,34S)-6,9-二苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-25-乙基-3-异丙基-4,7,16,19,22,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0832] (225) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0833] (226) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁氧基甲基)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0834] (227) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S)-21'-((S)-仲丁基)-12'-(4-氯苄基)-34'-异丁基-10',13',16',19',31',35'-六甲基-6'-(4-(三氟甲基)苯乙基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

[0835] (228) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-

(三氟甲基)苯乙基)-35-(环己基甲基)-18-((R)-1-羟基乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0836] (229) (3S,9S,18S,21S,25S,28S,34S)-9-[4-氯苯基]甲基]-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0837] (230) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁基甲基)-9-(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0838] (231) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0839] (232) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,7,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0840] (233) 2-[[(3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]-N-叔丁基-乙酰胺,

[0841] (234) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0842] (235) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(2-(甲基磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0843] (236) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0844] (237) (3S,9S,18S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环

己基-9-(环己基甲基)-25-[3-氟苯基]甲基]-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[0845] (238) 3-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

[0846] (239) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0847] (240) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-6-乙基-30-异丁基-3-异丙基-1,4,10,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0848] (241) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0849] (242) (3S,9S,18S,21S,25R,28S,31S,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0850] (243) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0851] (244) (3S,9S,18S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-25-[(2-羟基-2-甲基-丙氧基)甲基]-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[0852] (245) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0853] (246) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0854] (247) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0855] (248) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环丙基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0856] (249) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0857] (250) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-22-(异戊氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0858] (251) (7S,10S,16S,25S,28S,32S,35S) -10-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-(环己基甲基)-7-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-28-异丁基-35-异丙基-8,14,17,20,23,29,33,36-八甲基-25-[(1S)-1-甲基丙基]-32-(哌啶-1-羰基)-5,8,11,14,17,20,23,26,29,33,36-十一氮杂螺[3.33]三十七烷-6,9,12,15,18,21,24,27,30,34,37-十一酮,

[0859] (252) 3-[[(3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-12-基]甲基]苄腈,

[0860] (253) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0861] (254) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-((2,2,2-三氟乙氧基)甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并

[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0862] (255) (9'S,12'S,16'S,19'S,24a'S,26'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环己基-36'-(环己基甲基)-12'-异丁基-7',13',17',20',34',37'-六甲基-26'-苯基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0863] (256) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0864] (257) (3S,9S,12S,18S,27S,30S,34R)-9-丁基-18-[(4-氯苯基)甲基]-19-乙基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,22,25,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0865] (258) (3S,9S,18S,21S,25R,28S,34S)-9-[(4-氯苯基)甲基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0866] (259) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-6-[(2-甲氧基苯基)甲基]-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0867] (260) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((R)-1-羟基乙基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0868] (261) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0869] (262) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0870] (263) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,12,16,19,33,36-六甲基-15-(吗啉-

4-羰基)-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[0871] (264) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0872] (265) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-(2-苯基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0873] (266) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0874] (267) (8S,11S,15R,18S,23aS,29S,31aR,38S,40aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-6,11,12,15,19,39-六甲基二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40 (14H,22H,31aH)-十一酮,

[0875] (268) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0876] (269) (3S,9S,18S,21S,25R,28S,34S)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0877] (270) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-18-环戊基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[0878] (271) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0879] (272) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-

4-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0880] (273) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0881] (274) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0882] (275) (3S,9S,18S,21S,25R,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0883] (276) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0884] (277) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0885] (278) 2-((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-8-基)乙腈,

[0886] (279) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0887] (280) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环丙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0888] (281) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

18-环己基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0889] (282) (8S,11S,17S,26S,29S,33S,36S)-8-[(3-氯苯基) 甲基]-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0890] (283) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0891] (284) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0892] (285) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9,21-双(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0893] (286) (4R,7S,13S,16S,22S,31S,34S)-22-[(4-氯苯基) 甲基]-7,13-二异丁基-4,8,10,10,14,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基) 苯基] 乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[0894] (287) (3S,9S,18S,21S,25S,28S,31R,34S)-31-烯丙基-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0895] (288) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0896] (289) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-35-(丙氧基甲基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0897] (290) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环丁基甲基)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊

烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0898] (291) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-5,6,11,12,15,19,21,21,22,33,36-十一甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[0899] (292) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0900] (293) (5S,8S,11S,15S,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-异丙基-5,6,11,12,16,19,38-七甲基-15-(哌啶-1-羰基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

[0901] (294) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8,9,15,18,21,24,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0902] (295) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0903] (296) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0904] (297) (6'S,9'S,13'S,16'S,25'S,31'S,33a'S,37a'S,38a'S) -16'-((S)-仲丁基)-31'-(3-氯-4-(三氟甲基)苯乙基)-6'-环己基-25'-(环己基甲基)-13'-异丁基-5',8',12',18',21',24',27'-七甲基-9'-(哌啶-1-羰基)二十六氢-4'H-螺[环戊烷-1,3'-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶]-1',4',7',11',14',17',20',23',26',29',32'(2'H,8'H)-十一酮,

[0905] (298) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0906] (299) (3S,9S,18S,21S,25R,28S,31S,34S) -31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,5,8,

11,14,17,20,23,27,30,33-十一酮,

[0907] (300) (3S,9S,18S,21S,25R,28S,34S)-21-丁-3-炔基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(4-碘苯基)甲基]-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0908] (301) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0909] (302) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0910] (303) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0911] (304) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-((2,2,2-三氟乙氧基)甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (305) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-16,28-二异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0912] (306) 3-[(3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]丙酸烯丙酯,

[0913] (307) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[0914] (308) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0915] (309) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁氧基甲基)-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0916] (310) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(3,4-二氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0917] (311) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0918] (312) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0919] (313) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0920] (314) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-N,N,5,6,12,16,19,21,33,36-十甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[0921] (315) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0922] (316) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-35-(丙氧基甲基)三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,

1'-环戊烷]-15-甲酰胺,

[0923] (317) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-N,N,9,15,18,21,24,29,30,34,37-十一甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

[0924] (318) (5S,8S,12S,15S,20aS,26S,32S,34aS,38aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-8-异丁基-15-异丙基-9,13,16,30,33-五甲基-12-(哌啶-1-羰基)二十二氢-25H-螺[双(氮杂环丁二烯并)[1,2-g:1',2'-j]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,38(2H,11H,19H,34aH)-十一酮,

[0925] (319) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0926] (320) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0927] (321) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,21-双(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0928] (322) (3S,9S,18S,21S,25R,28S,31S,34S,36R)-31-苄基-9-[(4-氯苯基)甲基]-36-乙氧基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0929] (323) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0930] (324) (10'S,13'S,17'S,20'S,25a'S,31'S,37'S,39a'S)-10'-((S)-仲丁基)-37'-(环己基甲基)-31'-(3,4-二氯苯乙基)-13'-异丁基-20'-异丙基-8',14',18',21',35',38'-六甲基-17'-(哌啶-1-羰基)二十四氢-2'H,6'H-螺[环戊烷-1,23'-吡啶并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',19',22',25',30',33',36',39'(16'H,24'H)-十一酮,

[0931] (325) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十

七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0932] (326) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0933] (327) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0934] (328) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-氯苯基)甲基]-10-乙基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,13,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0935] (329) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-(2-乙氧基乙基)-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0936] (330) (3S,9S,12S,18S,27S,30S,34S)-9-[(4-氯苯基)甲基]-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0937] (331) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0938] (332) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-9,27-双[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0939] (333) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环戊基-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0940] (334) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0941] (335) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁

基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(邻甲基苯基)-13-(哌啶-1-羰基)-31-(对甲基苯基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0942] (336) (3S,9S,12S,18S,27S,30S,34S)-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0943] (337) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0944] (338) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-[(5-甲基-3-吡啶基)甲基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0945] (339) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲基苯基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0946] (340) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22,31-双(对甲基苯基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0947] (341) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[0948] (342) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0949] (343) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-11-戊基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0950] (344) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8- ((S) -仲丁基) -18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0951] (345) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0952] (346) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0953] (347) (6'S,12'S,21'S,24'S,26a'R,29a'R,32'S,37a'S) -21'-((S) -仲丁基) -6'-(3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-24'-异丁基-32'-异丙基-10',13',16',19',25',33'-六甲基二十六氢螺[环戊烷-1,35'-环戊并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',31',34',37' (36'H) -十一酮,

[0954] (348) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0955] (349) (5S,8S,11S,15S,18S,23aS,29S,31aR,38S,40aS) -8- ((S) -仲丁基) -29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-5,6,11,12,16,19,39-七甲基-15-(哌啶-1-羰基)二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40 (14H,22H,31aH) -十一酮,

[0956] (350) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,33,34,37-九甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[0957] (351) (3S,6S,9S,12S,18S,27S,30S) -6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0958] (352) (2aS,5S,11S,14S,20S,23S,30aS,33S) -33-((S) -仲丁基) -14-丁基-11-(3-氯-4-(三氟甲基)苯乙基)-5-(4-氯苄基)-20-异丁基-4,7,16,17,17,22,35-七甲基-23-

(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

[0959] (353) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0960] (354) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,21,21,33,36-九甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[0961] (355) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0962] (356) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0963] (357) 2-[[(3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

[0964] (358) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0965] (359) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0966] (360) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0967] (361) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙

基]-28-环戊基-6,7,9,10,13,16,21,22,25,29-十甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0968] (362) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0969] (363) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[0970] (364) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0971] (365) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0972] (366) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0973] (367) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0974] (368) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0975] (369) (3S,9S,18S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,

17,20,24,27,30,33-十一酮,

[0976] (370) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0977] (371) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0978] (372) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-7,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0979] (373) 3-[[(3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-12-基]甲基]苄基,

[0980] (374) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0981] (375) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0982] (376) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-9-[[3-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[0983] (377) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (378) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,

33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0984] (379) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0985] (380) (3S,6R,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0986] (381) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0987] (382) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,22,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0988] (383) (3S,9S,18S,21S,25R,28S,31S,34S)-9-[4-氯苯基]甲基]-31-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0989] (384) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0990] (385) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[4-氟苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[0991] (386) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[0992] (387) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -35- (环己基甲基) -18- 异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) -11- ((2,2,2-三氟乙氧基) 甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0993] (388) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -18- 环戊基-35- (4-氟苄基) -11- 异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0994] (389) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25- [2-[3-氯-4-(三氟甲基) 苯基]乙基] -31- (环己基甲基) -16- 环戊基-22- [2-(3,3-二氟-1-哌啶基) 乙基] -9- 异丁基-19- 异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6- [(1S) -1-甲基丙基] -2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[0995] (390) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-29- (3-氟-4-(三氟甲基) 苯乙基) -11- 异丁基-5,6,12,16,19,33,36-七甲基-15- (吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0996] (391) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -35- (环己基甲基) -18- 环戊基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) -11- 丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[0997] (392) (6S,9S,13S,16S,22S,25S,31S,34S) -25- [2-[3-氯-4-(三氟甲基) 苯基]乙基] -16- 环己基-31- (环己基甲基) -9- 异丁基-4,10,14,17,23,29,32-七甲基-6- [(1S) -1-甲基丙基] -13- (哌啶-1-羰基) -22- 丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[0998] (393) (3S,9S,18S,21S,25S,28S,34S) -3- [2-[3-氯-4-(三氟甲基) 苯基]乙基] -9- (环己基甲基) -21- 环戊基-28- 异丙基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[0999] (394) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -35- (环己基甲基) -21- 乙基-11- 异丁基-18- 异丙基-5,6,12,16,19,21,33,36-八甲基-15- (哌啶-1-羰基) 二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

[1000] (395) (3S,9S,18S,21S,25R,28S,34S) -3- [2-[3-氯-4-(三氟甲基) 苯基]乙基] -9-

(环己基甲基)-7-乙基-21-异丁基-28-异丙基-10,13,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1001] (396) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,35,36-十甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1002] (397) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-11-(2-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1003] (398) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-12-[2-(对甲苯基)乙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1004] (399) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环戊基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1005] (400) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1006] (401) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1007] (402) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1008] (403) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并

[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1009] (404) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1010] (405) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]-13-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1011] (406) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,4,7,16,19,22,25,30,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1012] (407) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1013] (408) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1014] (409) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1015] (410) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1016] (411) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1017] (412) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R) -15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-异丙基-7',10',13',18',19',22',

26'-七甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[1018] (413) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-乙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1019] (414) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1020] (415) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1021] (416) (7S,10S,14R,17S,22aS,28S,34S,36aS,40aS)-7-((S)-仲丁基)-28-(3-氯-4-(三氟甲基)苯乙基)-34-(环己基甲基)-10-异丁基-17-异丙基-11,14,18,32,35-五甲基二十四氢-27H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-20,1'-环戊烷]-6,9,12,16,19,22,27,30,33,36,40(2H,13H,21H,36aH)-十一酮,

[1022] (417) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1023] (418) (6S,9S,13R,16S,22S,25S,31S,34S)-31-[4-氯苯基]甲基]-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1024] (419) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-11-(2-(甲基磺酰基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1025] (420) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1026] (421) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-

(环己基甲基)-18-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1027] (422) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1028] (423) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-19-乙基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1029] (424) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1030] (425) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(5,5-二氟戊基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1031] (426) (3S,9S,12S,18S,27S,30S,34S)-9-[2-(2-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,6,6,10,16,19,22,25,30,31-十一甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1032] (427) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1033] (428) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-苄基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1034] (429) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-异丁基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1035] (430) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己

基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1036] (431) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3,5-二氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1037] (432) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1038] (433) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1039] (434) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1040] (435) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5-((异戊氧基)甲基)-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1041] (436) (3S,9S,12S,18S,27S,30S,34R)-25-丁基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1042] (437) (3S,9S,18S,21S,25S,28S,34S)-25-(氮杂环丁烷-1-羰基)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1043] (438) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1044] (439) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-

(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1045] (440) 2-[(3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-18-基]乙腈,

[1046] (441) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(噻唑-4-基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1047] (442) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基) 甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1048] (443) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-6-乙基-11-异丁基-18-异丙基-5,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1049] (444) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3-异丙基-1,4,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1050] (445) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1051] (446) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1052] (447) (8S,11S,15S,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-37-(环己基甲基)-18-异丙基-6,11,12,16,19,38-六甲基-15-(哌啶-1-羰基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,

17,20,23,28,31,36,39 (14H,22H) -十一酮,

[1053] (448) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1054] (449) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(间甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1055] (450) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-((R)-1-羟基乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1056] (451) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁基甲基)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1057] (452) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-29-异丁基-36-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1058] (453) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,19,33,36-六甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1059] (454) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,26,29,31,31,32-十二甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1060] (455) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环丁基甲基)-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1061] (456) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环己基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基

丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1062] (457) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-9-乙基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1063] (458) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)-29-(4-(三氟甲基)苯乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1064] (459) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(2-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1065] (460) (3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-(4,4-二氟-1-哌啶基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1066] (461) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1067] (462) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1068] (463) (3S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3-异丙基-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1069] (464) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(2-氯苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1070] (465) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -11-环丁基-35- (环己基甲基) -18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1071] (466) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8- ((S) -仲丁基) -18-环戊基-29- (3,5-二氟-4- (三氟甲基) 苯乙基) -25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1072] (467) (3S,6S,9S,12S,18S,27S,30S,34S) -6,9-二苄基-18-[(4-氯苯基) 甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S) -1-甲基丙基]-12- (间甲苯基甲基) -34- (吡咯烷-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1073] (468) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-9- (环己基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1074] (469) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基) -8,18-二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1075] (470) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -11-异丁基-35- ((异戊氧基) 甲基) -18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1076] (471) (3S,9S,12S,18S,27S,30S,34R) -9-苄基-18-[(4-氯苯基) 甲基]-12-[2-[3-氟-4- (三氟甲基) 苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1077] (472) (6S,9S,13S,16S,19S,22S,25S,31S,34S) -19-苄基-22-丁基-31- (环己基甲基) -25-[(3-碘苯基) 甲基]-9,16-二异丁基-4,10,14,20,29,32-六甲基-6-[(1S) -1-甲基丙基]-13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1078] (473) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基) 甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S) -1-甲基丙基]-34- (哌啶-1-羰基) -12-[[3- (三氟甲氧基) 苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-

2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1079] (474) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1080] (475) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1081] (476) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1082] (477) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-22-[(5-甲基-3-吡啶基)甲基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1083] (478) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1084] (479) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-[[6-(三氟甲基)-3-吡啶基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1085] (480) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1086] (481) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,

31,34,37 (14H,22H) -十一酮,

[1087] (482) (3S,6R,9S,18S,21S,25R,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1088] (483) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-6-[(3-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1089] (484) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1090] (485) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-8-((异戊氧基)甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1091] (486) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1092] (487) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1093] (488) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1094] (489) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(吡啶-3-基甲基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[1095] (490) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环丙基-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1096] (491) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1097] (492) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(2-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1098] (493) (3S,6R,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3-异丙基-1,4,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1099] (494) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1100] (495) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1101] (496) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((R)-1-羟基乙基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1102] (497) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-8-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1103] (498) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙

基]-34-(哌啶-1-羰基)-6-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1104] (499) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-7,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1105] (500) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(噻唑-4-基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1106] (501) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1107] (502) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1108] (503) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1109] (504) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-13-乙基-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1110] (505) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1111] (506) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1112] (507) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29,31,31,32-十一甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三

十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1113] (508) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1114] (509) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,6,12,16,19,33,36-七甲基-11-戊基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1115] (510) (3S,9S,18S,21S,25R,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1116] (511) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1117] (512) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基)甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂双环[32.4.0]三十八烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1118] (513) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-9-[(5-氟-3-吡啶基)甲氧基甲基]-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1119] (514) (6'S,9'S,13'S,16'S,25'S,31'S,38a'S) -16'-((S)-仲丁基)-31'-(3-氯-4-(三氟甲基)苯乙基)-6'-环己基-25'-(环己基甲基)-13'-异丁基-5',8',12',18',21',24',27'-七甲基-9'-(哌啶-1-羰基)-5',6',9',10',12',13',15',16',18',19',21',22',24',25',27',28',30',31',38',38a'-二十氢-4'H-螺[环戊烷-1,3'-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶]-1',4',7',11',14',17',20',23',26',29',32'(2'H,8'H)-十一酮,

[1120] (515) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1121] (516) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',16',20',

33',34',37'-八甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1122] (517) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-6-[(5-氟-3-吡啶基)甲氧基甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1123] (518) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1124] (519) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1125] (520) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1126] (521) (6S,9R,13S,16S,25S,31S,33aS,37aS,38aS)-16-((S)-仲丁基)-25-(4-氯苄基)-6-异丁基-3,3,5,9,12,13,18,21,24,27-十甲基-31-(4-(三氟甲基)苯乙基)二十八氢-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-1,4,7,11,14,17,20,23,26,29,32(8H)-十一酮,

[1127] (522) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31,31-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1128] (523) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(3,3-二氟丙基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1129] (524) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-18-环戊基-11-异丁基-5,6,12,19,33,36-六甲基-15-(哌啶-1-羰基)-16-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1130] (525) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i]

[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1131] (526) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环己基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1132] (527) (6S,9S,13S,16S,22S,25S,31S,34S) -22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1133] (528) (3S,9S,18S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-[(4-氟苯基)甲基]-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[1134] (529) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1135] (530) (6'S,9'S,13'S,16'S,21a'S,27'S,33'S,38a'S) -6'-((S)-仲丁基)-27'-(4-氯苯乙基)-33'-(环己基甲基)-9'-异丁基-16'-异丙基-10',14',17',31',34',37'-六甲基-13'-(哌啶-1-羰基)二十二氢-1'H-螺[环戊烷-1,19'-二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',15',18',21',26',29',32',35',38'(12'H,20'H,38a'H) -十一酮,

[1136] (531) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-5,6,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1137] (532) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-26-乙基-7,10,13,16,21,22,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1138] (533) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环丙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1139] (534) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙

基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1140] (535) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1141] (536) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-6-(环己基甲基)-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1142] (537) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,18-双(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1143] (538) (3S,6S,10R,13S,19S,22S,28S,34S)-28-[(4-氯苯基)甲基]-13,19-二异丁基-6-异丙基-7,10,14,20,26,29,32-七甲基-3-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,11,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-16,1'-环戊烷]-2,5,8,12,15,18,21,24,27,30,33-十一酮,

[1144] (539) (3S,6R,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1145] (540) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1146] (541) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1147] (542) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-环丙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1148] (543) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-10-乙基-21-异丁基-7,13,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1149] (544) (3S,9S,18S,21S,25S,28S,34S,36S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1150] (545) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1151] (546) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,
- [1152] (547) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1153] (548) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1154] (549) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苄基)-36'-(4-氯苄基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,
- [1155] (550) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1156] (551) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1157] (552) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18,28-二环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环

戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1158] (553) (8S,11S,15S,18S,23aS,29S,31aR,38S,40aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-38-(环己基甲基)-18-异丙基-6,11,12,16,19,39-六甲基-15-(哌啶-1-羰基)二十四氢-2H,4H,28H-螺[氮杂环丁二烯并[2,1-u]吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,37,40(14H,22H,31aH)-十一酮,

[1159] (554) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1160] (555) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1161] (556) (3S,9S,12S,18S,27S,30S,34S) -9-[(2-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1162] (557) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(3-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1163] (558) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1164] (559) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1165] (560) (3S,9S,18S,21S,25R,28S,31S,34S) -9-[(4-氯苯基)甲基]-28-异丁基-31-异丙基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1166] (561) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环丙基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1167] (562) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1168] (563) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1169] (564) 4-[[(3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,
- [1170] (565) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环丙基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1171] (566) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-9-丁基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,7,16,19,22,25,31,34-八甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,
- [1172] (567) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1173] (568) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-N,N,5,6,12,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,
- [1174] (569) (6S,12S,21S,24S,26aR,30aR,33S,38aS)-21-((S)-仲丁基)-6-(3-氯-4-(三氟甲基)苯乙基)-12-(环己基甲基)-24-异丁基-33-异丙基-10,13,16,19,34-五甲基二十六氢-5H-螺[苯并[f1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-36,1'-环戊烷]-5,8,11,14,17,20,23,26,32,35,38(26aH,37H)-十一酮,
- [1175] (570) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-环戊基-18-异丙基-5,6,12,15,19,33,36-七甲

基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1176] (571) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1177] (572) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,35-双(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1178] (573) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1179] (574) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1180] (575) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1181] (576) (3S,9S,18S,21S,25R,28S,34S)-3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1182] (577) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,28-双(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1183] (578) (3S,9S,18S,21S,25R,28S,34S)-9-[(4-氯苯基)甲基]-21-(环己基甲基)-28-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1184] (579) (3S,9S,18S,21S,25R,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1185] (580) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-8-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1186] (581) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S) -21'-((S)-仲丁基)-6'-(3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-34'-异丙基-10',13',16',19',31',35'-六甲基二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

[1187] (582) (3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-6-[2-(羟基-2-甲基-丙氧基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1188] (583) (8S,11S,17S,26S,29S,33R,36S) -17-[(4-氯苯基)甲基]-29-(环己基甲基)-8,36-二异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1189] (584) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(4-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1190] (585) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁氧基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1191] (586) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异戊基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1192] (587) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,

28,31,34,37 (14H,22H) - 十一酮,

[1193] (588) (3S,6S,9S,12S,18S,27S,30S,34R) - 18-[(4-氯苯基)甲基]-3,9-二异丁基-6-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1194] (589) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[1195] (590) 3-[(8S,11S,17S,26S,29S,33S,36S) - 11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]-N-甲基-丙酰胺,

[1196] (591) (3S,9S,18S,21S,25S,28S,31S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1197] (592) (8S,11S,17S,26S,29S,33S,36S) - 11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-[(6-甲氧基-3-吡啶基)甲基]-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1198] (593) (3S,9S,18S,21S,25R,28S,34S) - 3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1199] (594) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) - 8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[1200] (595) (3S,9S,12S,18S,27S,30S,34R) - 18-[(4-氯苯基)甲基]-30-(环己基甲基)-3,9-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1201] (596) (3S,9S,12S,18S,27S,30S,34S) - 12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1202] (597) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(3,4-二氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1203] (598) (5S,8S,11S,15R,18S,21R,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-21-异丙基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1204] (599) (8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1205] (600) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1206] (601) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1207] (602) (3S,9S,12S,18S,27S,30S,34R)-22-丁基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1208] (603) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1209] (604) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-19-苄基-25-[(3-碘苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,9,10,14,20,22,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(吡咯烷-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1210] (605) (3S,9S,18S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-[(2-羟基-2-甲基-丙氧基)甲基]-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十

七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[1211] (606) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1212] (607) (8S,11S,17S,26S,29S,33S,36S) -11-[2-(4-氯苯基)乙基]-8-[(2-氯苯基)甲基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1213] (608) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1214] (609) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3-异丙基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1215] (610) (8S,11S,17S,26S,29S,33S,36S) -17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1216] (611) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1217] (612) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3-异丙基-4,7,9,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1218] (613) (3S,6S,9S,12S,18S,27S,30S,34S) -6,12-二苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1219] (614) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-22-[(6-甲氧基-3-吡啶基)甲基]-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1220] (615) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-30-(环己基甲基)-3,9-二异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1221] (616) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(2-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1222] (617) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1223] (618) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-(4-氟苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1224] (619) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,9,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1225] (620) (3S,9S,18S,21S,25S,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1226] (621) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-异丁基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1227] (622) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,12,16,19,33,36-七甲基-11-戊基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1228] (623) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1229] (624) (3S,6S,9S,12S,18S,27S,30S,34S) -9-[(2-氯苯基)甲基]-12-[2-[3-氯-4-

(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,6,10,16,19,22,25,30,31-十甲基-27-[(1S) -1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1230] (625) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1231] (626) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1232] (627) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1233] (628) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1234] (629) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1235] (630) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1236] (631) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1237] (632) (6S,12S,21S,23aS,31R,34S,37S,39aS) -37-苄基-21-((S)-仲丁基)-12-(4-氯苄基)-34-异丁基-10,13,16,19,31,35,38-七甲基-6-(4-(三氟甲基)苯乙基)二十四氢-1H-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-5,8,11,14,17,20,23,29,33,36,39(23aH,30H,39a H)-十一酮,

[1238] (633) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-3-(3-苯基丙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1239] (634) (3S,9S,18S,21S,25S,28S,31S,34S,36R) -31-苄基-9-[(4-氯苯基)甲基]-36-乙氧基-3-[(3-碘苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1240] (635) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-16-[2-(4,4-二氟-1-哌啶基)乙基]-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1241] (636) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-11-(甲氧基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1242] (637) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1243] (638) (6S,9S,13S,16S,22S,25S,31S,34S) -22-[(2-氟苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1244] (639) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1245] (640) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1246] (641) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1247] (642) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-8-环己基-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1248] (643) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(环戊基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1249] (644) (3S,9S,18S,21S,25R,28S,31S,34S) -31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1250] (645) (6S,9S,13R,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-16,22-二异丁基-9-异丙基-4,10,13,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-25-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1251] (646) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-12-[2-(4-氟苯基)乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1252] (647) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1253] (648) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1254] (649) (4R,7S,13S,16S,22S,31S,34S) -22-(环己基甲基)-16-[2-[3-氟-4-(三氟甲基)苯基]乙基]-7,13-二异丁基-4,5,10,10,11,20,23,26,29-九甲基-31-[(1S)-1-甲基丙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[1255] (650) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1256] (651) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苯乙基)-18-环戊基-35-乙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1257] (652) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1258] (653) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(5,5-二氟戊基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1259] (654) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1260] (655) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-3-异丙基-6-(甲氧基甲基)-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1261] (656) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1262] (657) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-12-[(3-氯-5-氟-苯基)甲基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1263] (658) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-30-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1264] (659) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-29-(3-苯基丙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37

(14H,22H)-十一酮,

[1265] (660) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-21-异丙基-N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1266] (661) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-((异戊氧基)甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1267] (662) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-氧杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1268] (663) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1269] (664) (3S,9S,18S,21S,25R,28S,34S)-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,25,29,31,31-十甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1270] (665) (3S,9S,18S,21S,25R,28S,31R,34S)-31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1271] (666) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(环己基甲基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

[1272] (667) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-12-乙基-11-异丁基-18-异丙基-5,6,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1273] (668) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苄基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1274] (669) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-丙-2-炔基-11-[2-[4-(三氟甲基)苄基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1275] (670) (6'S,12'S,21'S,23a'S,31'S,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-6'-(3-氟-4-(三氟甲基)苄基)-34'-异丙基-10',13',16',19',32',35'-六甲基-31'-(哌啶-1-羰基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

[1276] (671) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-35-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1277] (672) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环丁基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1278] (673) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1279] (674) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1280] (675) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-3,9-二异丁基-6-(异戊氧基甲基)-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苄基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1281] (676) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-35-(环己基甲基)-5-(环丙氧基甲基)-11-异丁基-18-异丙基-6,12,

16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1282] (677) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-N,N,5,6,12,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1283] (678) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1284] (679) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-(2,2,2-三氟乙基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1285] (680) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1286] (681) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(2-氟苯基)甲基]-3,30-二异丁基-6,18-双[(4-甲氧基苯基)甲基]-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1287] (682) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-22-[2-(3,3-二氟-1-哌啶基)乙基]-16-异丙基-3,4,9,10,14,17,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1288] (683) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1289] (684) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-

15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1290] (685) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟苯乙基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1291] (686) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1292] (687) (3S,9S,12S,18S,27S,30S,34R)-18-[4-氯苯基]甲基]-12-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1293] (688) 2-[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙酸,

[1294] (689) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1295] (690) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1296] (691) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环戊基甲基)-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1297] (692) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(丙氧基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1298] (693) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-

35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1299] (694) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1300] (695) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1301] (696) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-6-(邻甲苯基甲基)-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1302] (697) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1303] (698) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1304] (699) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁氧基甲基)-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1305] (700) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,19,33,36-六甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1306] (701) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1307] (702) (3S,6R,9S,12S,18S,27S,30S,34S) -9-[(2-氯苯基) 甲基]-12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环己基甲基)-3-异丙基-1,4,6,10,16,19,22,25,30,31-十甲基-27-[(1S) -1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1308] (703) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基) 甲基]-9,16-二异丁基-22-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1309] (704) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1310] (705) (3S,9S,18S,21S,25R,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21,31-二异丁基-28-异丙基-7,10,13,16,22,25,29,31-八甲基-18-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1311] (706) (3S,9S,12S,18S,27S,30S,34S) -9-[(2-氯苯基) 甲基]-12-[(3-碘苯基) 甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1312] (707) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1313] (708) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,29-七甲基-18,28-双[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1314] (709) (6S,9S,13S,16S,21aS,27S,33S,35aS,39aS) -6-((S)-仲丁基)-27-(3-氯-4-(三氟甲基) 苯乙基)-33-(环己基甲基)-9-异丁基-16-异丙基-10,14,17,31,34-五甲基-13-(哌啶-1-羰基) 二十二氢-1H,26H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-19,1'-环戊烷]-5,8,11,15,18,21,26,29,32,35,39(12H,20H,35aH,39aH)-十一酮,

[1315] (710) 3-[[(3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基] 甲基] 苄腈,

[1316] (711) (3S,9S,12S,18S,27S,30S,34S) -18-(环己基甲基)-9-[(4-氟苯基) 甲基]-

12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1317] (712) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1318] (713) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1319] (714) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,25,26,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1320] (715) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,22,23,29,32-十二甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1321] (716) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1322] (717) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1323] (718) (8S,11S,17S,26S,29S,33S,36S)-8-[(4-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1324] (719) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-13-(氮杂环丁烷-1-羰基)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1325] (720) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1326] (721) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1327] (722) (3S,6S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-6,7,10,13,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1328] (723) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1329] (724) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环己基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1330] (725) (8S,11S,15S,18S,23aS,31S,37S,39aS)-8-((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-37-(环己基甲基)-11-异丁基-6,12,16,19,35,38-六甲基-15-(哌啶-1-羰基)-1,5,6,8,9,11,12,15,16,18,19,23a,24,31,32,34,35,37,38,39a-二十氢-2H,4H-螺[氮杂环丁二烯并[2',1':21,22][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-21,1'-环戊烷]-4,7,10,13,17,20,23,30,33,36,39(14H,22H)-十一酮,

[1331] (726) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1332] (727) N-叔丁基-2-[[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲氧基]乙酰胺,

[1333] (728) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1334] (729) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-(3-甲基丁-2-烯-1-基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1335] (730) (8S,11S,17S,26S,29S,33S,36S)-8-丁基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1336] (731) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1337] (732) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1338] (733) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-8-(环丁基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1339] (734) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1340] (735) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1341] (736) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,22,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1342] (737) (3S,9S,18S,21S,25S,28S,34S) -25- (4-叔丁基哌啶-1-羰基) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1343] (738) (3S,9S,18S,21S,25R,28S,34S) -28-环己基-9- (环己基甲基) -3- [2- [3,5-二氟-4- (三氟甲基) 苯基] 乙基] -36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1344] (739) (3S,6S,9S,12S,18S,27S,30S,34S) -18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27- [(1S) -1-甲基丙基] -6- (丙氧基甲基) -34- (吡咯烷-1-羰基) -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1345] (740) (3S,9S,12S,18S,27S,30S,34R) -18- [(4-氯苯基) 甲基] -12- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -3,9-二异丁基-30-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-27- [(1S) -1-甲基丙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1346] (741) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18,21-二异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H) -十一酮,

[1347] (742) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18- [(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1348] (743) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环己基-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1349] (744) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-28- (2-甲氧基乙基) -7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1350] (745) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-烯丙基-29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1351] (746) (7'S,16'S,19'S,23'R,26'S,31a'S,37'S,39a'R)-16'-((S)-仲丁基)-37'-(3-氯-4-(三氟甲基)苯乙基)-7'-(环己基甲基)-26'-异丙基-8',11',14',19',20',23',27'-七甲基二十四氢-2'H,6'H-螺[环戊烷-1,29'-吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',18',21',25',28',31',36',39'(22'H,30'H)-十一酮,

[1352] (747) (6'S,12'S,21'S,24'S,27a'R,34'S,39a'S)-21'-((S)-仲丁基)-6'-(3-氯-4-(三氟甲基)苯乙基)-12'-(环己基甲基)-24'-异丁基-34'-异丙基-10',13',16',19',25',35'-六甲基二十六氢螺[环戊烷-1,37'-吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',33',36',39'(38'H)-十一酮,

[1353] (748) (3S,6R,9S,12S,18S,27S,30S,34S)-6-烯丙基-9-[2-氯苯基]甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1354] (749) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(4-(三氟甲基)苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1355] (750) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1356] (751) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-[4-氯苯基]甲基]-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1357] (752) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[4-氯苯基]甲基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1358] (753) (3S,9S,18S,25R,28S,34S)-25-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,23,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[1359] (754) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-22-[(2-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1360] (755) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4-(三氟甲基) 苯乙基) -11- (环丁氧基甲基) -35- (环己基甲基) -18-异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1361] (756) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28-环己基-9- (环己基甲基) -21- [(1R) -1-羟基乙基] -7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1362] (757) (6S,9S,13S,16S,22S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -16-环己基-31- (环己基甲基) -9-异丁基-4,10,14,17,23,29,32-七甲基-6- [(1S) -1-甲基丙基] -13- (哌啶-1-羰基) -22- (3-吡啶基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1363] (758) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-12- [(3-氯苯基) 甲基] -18- [(4-氯苯基) 甲基] -3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27- [(1S) -1-甲基丙基] -34- (吡咯烷-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1364] (759) N-叔丁基-2- [[(8S,11S,17S,26S,29S,33S,36S) -17- [(4-氯苯基) 甲基] -8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26- [(1S) -1-甲基丙基] -7,10,13,16,19,22,25,28,31,35,38-十一氧代-11- [2- [4- (三氟甲基) 苯基] 乙基] -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-基] 甲氧基] 乙酰胺,

[1365] (760) (2aS,5S,11S,14S,20S,23S,30aS,33S) -33- ((S) -仲丁基) -14-丁基-11- (3-氯-4- (三氟甲基) 苯乙基) -5- (环己基甲基) -20-异丁基-4,7,16,17,17,22,35-七甲基-23- (哌啶-1-羰基) 二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37 (1H,22H,27H) -十一酮,

[1366] (761) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -31- (环己基甲基) -16-环戊基-22- [2- (3,3-二氟氮杂环丁烷-1-基) -2-氧代-乙基] -9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6- [(1S) -1-甲基丙基] -2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1367] (762) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -9- (环己基甲基) -21-异丁基-28-异戊基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1368] (764) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-9-叔丁基-18- [(4-氯苯基) 甲基] -3-异丁基-4,7,16,19,22,25,30,31,34-九甲基-27- [(1S) -1-甲基丙基] -12- [2- [4- (三氟甲基) 苯基] 乙基] -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,

11,14,17,20,23,26,29,32-十一酮,

[1369] (765) (3S,9S,12S,18S,27S,30S,34S) -3,9-二丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1370] (766) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1371] (767) 2-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

[1372] (768) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1373] (769) (8S,11S,17S,26S,29S,33S,36S) -17-[(4-氯苯基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1374] (770) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-22-[(5-甲氧基-3-吡啶基)甲基]-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1375] (771) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1376] (772) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-9-环己基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1377] (773) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基

丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1378] (774) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1379] (775) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1380] (776) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1381] (777) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,13,14,17,23,29,32-九甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1382] (778) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1383] (779) (3S,6S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-6-(5,5-二氟戊基)-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1384] (780) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-13-(1,1-二氧化-1,4-噻嗪烷-4-羰基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1385] (781) (6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1386] (782) (6S,9S,13R,16S,19S,22S,25S,31S,34S)-19-苄基-31-[(4-氯苯基)甲基]-

25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1387] (783) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(3-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1388] (784) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-21-异丙基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1389] (785) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,12,15,16,19,33-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1390] (786) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-4,10,14,17,23,29,32-七甲基-6-[(1S)-1-甲基丙基]-22-[(6-甲基-3-吡啶基)甲基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1391] (787) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1392] (788) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1393] (789) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(2-羟基-2-甲基-丙氧基)甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1394] (790) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,

10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1395] (791) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基) 甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-22-[2-(三氟甲基) 苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1396] (792) 2-[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙酸烯丙酯,

[1397] (793) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-3-异丙基-6-(甲氧基甲基)-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1398] (794) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1399] (795) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-35-(3-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1400] (796) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-36-环己基-17-(环己基甲基)-8-(5,5-二氟戊基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1401] (797) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基) 甲基]-12-[2-[3-氟-4-(三氟甲基) 苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1402] (798) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11,15-二异丁基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1403] (799) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯

烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1404] (800) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-3,27-双[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1405] (801) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-13-异戊基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1406] (802) (3S,9S,18S,21S,25R,28S,34S)-3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,4'-四氢吡喃]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1407] (803) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁氧基甲基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1408] (804) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1409] (805) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1410] (806) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1411] (807) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1412] (808) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二

异丁基-4,7,16,19,22,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1413] (809) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)-5-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1414] (810) 3-((5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基)-N-甲基丙酰胺,

[1415] (811) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1416] (812) (5S,8S,11S,15S,18S,23aS,31S,37S,39aS)-8-((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-37-(环己基甲基)-11-异丁基-5,6,12,16,19,35,38-七甲基-15-(哌啶-1-羰基)-1,5,6,8,9,11,12,15,16,18,19,23a,24,31,32,34,35,37,38,39a-二十氢-2H,4H-螺[氮杂环丁二烯并[2',1':21,22][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-21,1'-环戊烷]-4,7,10,13,17,20,23,30,33,36,39(14H,22H)-十一酮,

[1417] (813) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[2-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1418] (814) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1419] (815) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1420] (816) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-

4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1421] (817) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-19-(丙氧基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1422] (818) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲基苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1423] (819) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1424] (820) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1425] (821) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(4-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1426] (822) (5S,8S,11S,15S,18S,20aR,26S,29S,35S,37aS) -8-((S)-仲丁基)-26-丁基-29-(3-碘苄基)-11,18-二异丁基-5,6,12,16,33,36-六甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十四氢-4H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-f][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,25,28,31,34,37 (2H,14H) -十一酮,

[1427] (823) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,39'S,41a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-39'-(环己基甲基)-19'-异丙基-7',12',13',17',20',40'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H,29'H-螺[环戊烷-1,22'-吡啶并[2,1-o]二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',38',41'(15'H,23'H,32a'H) -十一酮,

[1428] (824) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-22-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1429] (825) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-

羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1430] (826) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-6-异丁基-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1431] (827) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1432] (828) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1433] (829) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,21,33,36-十甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1434] (830) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(3-氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1435] (831) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1436] (832) (3S,9S,12S,18S,27S,30S)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1437] (833) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,

13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[1438] (834) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,39'S,41a'S) - 9' - ((S) - 仲丁基) - 30' - (3-氯-4-(三氟甲基)苯乙基) - 39' - (环己基甲基) - 19' - 异丙基-7',12',13',16',20',40' - 六甲基二十六氢-5'H,29'H-螺[环戊烷-1,22'-吡啶并[2,1-o]二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',38',41' (15'H,23'H,32a'H) - 十一酮,

[1439] (835) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8 - ((S) - 仲丁基) - 29 - (3-氯-4-(三氟甲基)苯乙基) - 35 - (环丁氧基甲基) - 18 - 环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15 - (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[1440] (836) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8 - ((S) - 仲丁基) - 29 - (3-氯-4-(三氟甲基)苯乙基) - 18 - 环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35 - (丙氧基甲基) - 15 - (吡咯烷-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[1441] (837) (3S,9S,18S,21S,25R,28S,34S) - 3 - [2-[3-氯-4-(三氟甲基)苯基]乙基] - 9 - (环己基甲基) - 21 - 异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18 - [(1S) - 1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1442] (838) (3S,6S,9S,13S,16S,22S,25S,31S,34S) - 22 - [(4-氯苯基)甲基] - 25 - [2-[3-氯-4-(三氟甲基)苯基]乙基] - 9 - 异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S) - 1-甲基丙基] - 2,5,8,11,15,18,21,24,27,30,33-十一氧代-31 - (对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1443] (839) (3S,9S,12S,18S,27S,30S,34R) - 18 - (环己基甲基) - 3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27 - [(1S) - 1-甲基丙基] - 12 - [2-[4-(三氟甲基)苯基]乙基] - 1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1444] (840) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) - 8,18-二((S) - 仲丁基) - 29 - (3-氯-4-(三氟甲基)苯乙基) - 11-异丁基-N,N,5,12,16,19,33,36-八甲基-35 - (4-甲基苄基) - 4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1445] (841) (6'S,12'S,21'S,23a'S,31'S,34'S,39a'S) - 21' - ((S) - 仲丁基) - 6' - (4-氯苯乙基) - 12' - (环己基甲基) - 34' - 异丙基-10',13',16',19',32',35' - 六甲基-31' - (哌啶-1-羰基) 二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39' (23a'H,30'H,38'H) - 十一酮,

[1446] (842) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1447] (843) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-8,29,36-三异丁基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1448] (844) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环丙基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1449] (845) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1450] (847) (4R,7S,13S,16S,22S,31S,34S)-22-[(4-氯苯基)甲基]-7,13-二异丁基-4,8,14,20,23,26,29-七甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]螺[1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-10,1'-环戊烷]-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[1451] (848) (11S,17S,26S,29S,33S,36S)-9-丁基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1452] (849) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21,28-二环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1453] (850) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1454] (851) (8S,11S,17S,26S,29S,33R,36S)-17-[(4-氯苯基)甲基]-11-[2-[3-氟-4-(三氟甲基)苯基]乙基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1455] (852) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-5-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,

10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1456] (853) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1457] (854) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1458] (855) (9'S,12'S,16'S,19'S,24a'S,32'S,38'S,40a'S)-9'-((S)-仲丁基)-32'-(3-氯-4-(三氟甲基)苯乙基)-19'-环己基-38'-(环己基甲基)-12'-异丁基-7',13',17',20',36',39'-六甲基-16'-(哌啶-1-羰基)-1',2',3',6',7',9',10',12',13',16',17',19',20',24a',25',32',33',35',36',38',39',40a'-二十二氢-5'H-螺[环戊烷-1,22'-吡咯并[2',1':21,22][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶]-5',8',11',14',18',21',24',31',34',37',40'(15'H,23'H)-十一酮,

[1459] (856) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1460] (857) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环戊基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1461] (858) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-9-[[4-(二氟甲基)苯基]甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1462] (859) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1463] (860) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(4-氟苯乙基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1464] (861) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-

[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1465] (862) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-((R)-1-羟基乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1466] (863) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1467] (864) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-13-(2-乙氧基乙基)-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1468] (865) (3S,9S,18S,21S,25R,28S,31S,34S) -31-苄基-9-[(4-氯苯基)甲基]-28-异丙基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1469] (866) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1470] (867) 4-[[(3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈, (868) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1471] (869) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1472] (870) (3S,9S,18S,21S,25R,28S,31S,34S) -31-苄基-9-[(4-氯苯基) 甲基]-36, 36-二氟-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1473] (871) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1474] (872) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-36-环己基-17-(环己基甲基)-9-(2-乙氧基乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S) -1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1475] (873) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-环己基-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1476] (874) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-28-环丙基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1477] (875) (3S,9S,18S,21S,25S,28S,34S,36R) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基) 苯基] 乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1478] (876) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基) 甲基]-12-[(3-碘苯基) 甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-6-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1479] (877) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9,28-二环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1480] (878) (3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基) 甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S) -1-甲基丙基]-6-(2-苯基乙基)-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1481] (879) (3S,9S,18S,21S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基) 苯

基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1482] (880) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1483] (881) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1484] (882) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1485] (883) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1486] (884) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1487] (885) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁氧基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1488] (886) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1489] (887) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-[(5-甲氧基-3-吡啶基)甲基]-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1490] (888) 4-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈,

[1491] (889) N-叔丁基-2-[[(3S,6S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]甲氧基]乙酰胺,

[1492] (890) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1493] (891) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1494] (892) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1495] (893) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(4-氯苯基)乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1496] (894) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(2,2,2-三氟乙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (895) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-19-乙基-3,30-二异丁基-1,6,6,7,16,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1497] (896) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1498] (897) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-3-环己基-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-

27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1499] (898) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1500] (899) (11S,17S,26S,29S,33S,36S) -9-烯丙基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S) -1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1501] (900) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1502] (901) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-(环戊基甲基)-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1503] (902) (3S,9S,18S,21S,25R,28S,31S,34S) -9-[(4-氯苯基) 甲基]-28,31-二异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1504] (903) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(4-氯苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1505] (904) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1506] (905) (3S,6S,10R,13S,19S,22S,28S,34S) -28-(环己基甲基)-22-[2-[3-氟-4-(三氟甲基)苯基]乙基]-6,13,19-三异丁基-7,10,11,16,16,17,26,29,32-九甲基-3-[(1S) -1-甲基丙基]-1,4,7,11,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,12,15,18,21,24,27,30,33-十一酮,

[1507] (906) (7S,10S,16S,25S,28S,32S,35S) -7-[(2-氯苯基) 甲基]-10-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-(环己基甲基)-35-异丙基-8,14,17,20,23,28,29,33,36-九甲

基-25-[(1S)-1-甲基丙基]-32-(吡咯烷-1-羰基)-5,8,11,14,17,20,23,26,29,33,36-十一氮杂螺[3.33]三十七烷-6,9,12,15,18,21,24,27,30,34,37-十一酮,

[1508] (907) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1509] (908) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1510] (909) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1511] (910) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1512] (911) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁基甲基)-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1513] (912) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-22-(间甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1514] (913) (6S,9S,13R,16S,19S,22S,25S,31S,34S)-19-苄基-31-[(4-氯苯基)甲基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-25-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1515] (914) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-(4,4-二氟-1-哌啶基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一

酮,

[1516] (915) (3S,6S,9S,13S,16S,19S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1517] (916) (8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(4-氯苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1518] (917) (3S,9S,18S,21S,25S,28S,31R,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1519] (918) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1520] (919) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-(3-吡啶基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1521] (920) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1522] (921) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (922) (6S,9R,13S,16S,25S,31S,33aS,37aS,38aS) -16-((S)-仲丁基)-25-(4-氯苄基)-6,13-二异丁基-3,3,5,9,12,18,21,24,27-九甲基-31-(4-(三氟甲基)苯乙基)二十八氢-[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯并[10,9-a]吡啶-1,4,7,11,14,17,20,23,26,29,32(8H)-十一酮,

[1523] (923) (8S,11S,17S,26S,29S,36S) -17-[(4-氯苄基)甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,37-七甲基-26-[(1S)-1-甲基丙基]-11-[2-[4-(三氟甲基)苯基]

乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1524] (924) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1525] (925) (3S,9S,18S,21S,25S,28S,31S,34S,36R)-3-[(3-氯苯基)甲基]-9-[(4-氯苯基)甲基]-36-乙氧基-28-异丁基-31-(异戊氧基甲基)-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1526] (926) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1527] (927) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-1,4,7,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1528] (928) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1529] (929) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-35-((R)-1-甲氧基乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1530] (930) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丙基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1531] (931) (6S,9S,13S,16S,22S,25S,31S,34S)-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(2-苯基乙基)-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1532] (932) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-

七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1533] (933) (5S,8S,11S,15R,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-21-异丙基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1534] (934) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-6,18-双[(4-氯苄基)甲基]-12-[(3-碘苄基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1535] (935) 2-[[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基]甲基]苄腈, (936) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-9-环丁基-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1536] (937) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-18-环己基-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1537] (938) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1538] (939) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苄基]乙基]-17-(环己基甲基)-29-异丁基-36-异丙基-8,9,15,18,21,24,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1539] (940) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苄基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1540] (941) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苄基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-(2-甲氧基乙基)-7,10,13,16,22,26,29-七甲

基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1541] (942) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1542] (943) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1543] (944) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1544] (945) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-8-[(3-氟苯基)甲基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1545] (946) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1546] (947) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1547] (948) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-9-(环己基甲基)-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1548] (949) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1549] (950) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

36-环己基-17-(环己基甲基)-8-[(5-氟-3-吡啶基)甲氧基甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1550] (951) (5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-36-乙基-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1551] (952) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1552] (953) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(4-氯苯乙基)-36'-(环己基甲基)-12'-异丁基-19'-异丙基-7',13',17',20',34',37'-六甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1553] (954) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(3-氯苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1554] (955) N-叔丁基-2-[[(3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-基]甲氧基]乙酰胺,

[1555] (956) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-27-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1556] (957) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,22,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺, (958) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1557] (959) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1558] (960) (8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-6,12,16,19,33,36-六甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1559] (961) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1560] (962) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1561] (963) (8S,11S,17S,26S,29S,33S,36S) -8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1562] (964) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,38'S,40a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(环己基甲基)-19'-异丙基-7',12',13',17',20',39'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40' (15'H,23'H) -十一酮,

[1563] (965) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1564] (966) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-环戊基-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1565] (967) (3S,9S,12S,18S,27S,30S,34R) -18-(环己基甲基)-12-[2-[3-氟-4-(三氟

甲基) 苯基] 乙基]-9,30-二异丁基-3-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1566] (968) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-(环丁基甲基)-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1567] (969) (3S,9S,12S,18S,27S,30S,34S) -18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基) 苯基] 乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1568] (970) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-16,21-二异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1569] (971) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -11-(丁-3-炔-1-基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环己基-35-(4-碘苄基)-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1570] (972) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基) 甲基]-9,34-二异丁基-3-异丙基-4,7,10,16,19,22,25,30,31-九甲基-27-[(1S) -1-甲基丙基]-12-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1571] (973) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1572] (974) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1573] (975) 3-[[(3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-9-基] 甲基] 苄腈,

[1574] (976) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基

甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-29-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1575] (977) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1576] (978) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-4,7,9,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1577] (979) (3S,9S,18S,21S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1578] (980) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-环丙基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1579] (981) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1580] (982) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(噻唑-4-基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1581] (983) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,21-双(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1582] (984) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1583] (985) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1584] (986) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,18-双(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1585] (987) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1586] (988) (7S,10S,14S,17S,22aS,28S,34S,36aS,40aS) -7-((S)-仲丁基)-28-(3-氯-4-(三氟甲基)苯乙基)-34-(环己基甲基)-10-异丁基-17-异丙基-11,15,18,32,35-五甲基-14-(哌啶-1-羰基)二十四氢-27H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-20,1'-环戊烷]-6,9,12,16,19,22,27,30,33,36,40(2H,13H,21H,36aH)-十一酮,

[1587] (989) (3S,6S,9S,12S,18S,27S,30S,34S) -6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1588] (990) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-(2-氟苄基)-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1589] (991) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环戊基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1590] (992) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-25-(异戊氧基甲基)-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1591] (993) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,22,23,29,32-十二甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1592] (994) (6S,9S,13R,16S,19S,22S,25S,31S,34S) -19-苄基-31-[(4-氯苯基) 甲基]-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-22-异丁基-16-异丙基-4,9,10,13,17,20,23,29,32-九甲基-6-[(1S) -1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1593] (995) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1594] (996) (1R,4S,7S,16S,22S,25S,31S,34R) -16-[(4-氯苯基) 甲基]-25,31-二异丁基-4-异丙基-3,9,12,15,18,24,30-七甲基-7-[(1S) -1-甲基丙基]-22-[2-[4-(三氟甲基) 苯基] 乙基]螺[3,6,9,12,15,18,21,24,27,30,33-十一氮杂双环[32.3.0]三十七烷-28,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1595] (997) (3S,6S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基) 甲基]-6-[(4-氟苯基) 甲基]-12-[(3-碘苯基) 甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1596] (998) N-(叔丁基)-2-(((5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-15-(哌啶-1-羰基) 三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-5-基) 甲氧基) 乙酰胺,

[1597] (999) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1598] (1000) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-22-[(3-氟苯基) 甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S) -1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1599] (1001) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)-21-(2,2,2-三氟乙基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1600] (1002) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]

吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,(1003)(3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,(1004)(9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1601] (1005)(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-丙基-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1602] (1006)(5S,8S,11S,15R,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1603] (1007)(3S,9S,18S,25S,28S,34S)-25-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,23,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,24,27,30,33-十一酮,

[1604] (1008)(5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1605] (1009)(3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1606] (1010)(5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-21-异丙基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1607] (1011)(5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(吡啶-3-基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1608] (1012) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1609] (1013) (3S,9S,18S,21S,25R,28S,34S)-9-[4-氯苯基]甲基]-21,28-二异丁基-7,10,13,16,22,25,29,31,31-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1610] (1014) (8S,11S,17S,26S,29S,33R,36S)-17-[4-氯苯基]甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1611] (1015) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-苄基-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1612] (1016) (5S,8S,11S,15S,18S,23aS,25S,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-25-苯基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,(1017) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1613] (1018) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氯苄基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1614] (1019) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙基甲基)-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1615] (1020) (5S,8S,12R,15S,20aS,26S,32S,37aS)-5-((S)-仲丁基)-26-(3-氯-4-(三

氟甲基) 苯乙基) -32- (环己基甲基) -8-异丁基-15-异丙基-9,12,16,30,33,36-六甲基二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37 (2H,11H,19H) -十一酮,

[1616] (1021) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(五氟- λ^6 -硫烷基) 苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1617] (1022) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-9- (环己基甲基) -21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33,36-十二酮, (1023) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-6-乙基-11-异丁基-5,12,15,19,33,36-六甲基-35-(4-甲基苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1618] (1024) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基) 苯乙基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1619] (1025) (8R,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-17-(环己基甲基)-8-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1620] (1026) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基]乙基]-28-环己基-21-异丁基-9-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1027) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1621] (1029) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,

4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1622] (1030) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1623] (1031) (3S,9S,18S,21S,25R,28S,31S,34S)-31-苄基-9-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1624] (1032) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,25-二异丁基-28-异丙基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1625] (1033) (3S,9S,18S,21S,25R,28S,34S)-13-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,16,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1626] (1034) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,21,21,22,33,36-十一甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[1627] (1035) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-6-[(2-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1628] (1036) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-环丁基-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[1629] (1037) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(甲氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1630] (1038) (3S,9S,18S,21S,25R,28S,31R,34S)-31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九

甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1631] (1039) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1632] (1040) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1633] (1041) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-[(1R)-1-羟基乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1634] (1042) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1635] (1043) (3S,9S,12S,18S,27S,30S,34S)-12-苄基-9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1636] (1044) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-6-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1637] (1045) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-乙基-29-异丁基-8,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1638] (1046) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1639] (1047) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-35-环丁基-18-环戊基-16-乙基-11-异丁基-5,6,12,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1640] (1048) (3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1641] (1049) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1050) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-12'-异丁基-19'-异丙基-7',13',16',20',34',37'-六甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1642] (1051) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-22-乙基-28-异丙基-7,10,13,16,21,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1643] (1052) (3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-6-[[3-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1644] (1053) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-25-苄基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1054) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-9-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1645] (1055) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(对甲苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1646] (1056) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-

(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1647] (1057) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1648] (1058) (6S,9S,13S,16S,19S,22S,25S,31S,34S)-19-苄基-22-丁基-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-4,10,14,19,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1649] (1059) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-15-甲酰胺,

[1650] (1060) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1651] (1061) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-氯苯基)甲基]-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1652] (1062) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-25,25-二氟-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1653] (1063) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1654] (1064) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-18-环戊基-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-25-

(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1655] (1065) (3S,6R,9S,18S,21S,25R,28S,34S)-9-[4-氯苯基]甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1656] (1066) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-35-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1657] (1067) (3S,9S,12S,18S,27S,30S,34R)-18-[(1R)-1-苄氧基乙基]-3,9-二异丁基-4,6,6,10,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1658] (1068) (3S,9S,18S,21S,25R,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,31-二异丁基-28-异丙基-7,10,13,16,22,25,26,29,31-九甲基-18-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1659] (1069) (8S,11S,17S,26S,29S,33R,36S)-17-[4-氯苯基]甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-8-异丁基-29,36-二异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1660] (1070) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1071) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[1661] (1072) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-[(1R)-1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1662] (1073) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三

十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1663] (1074) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1075) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-9-[(3,4-二氟苯基)甲基]-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1664] (1076) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1665] (1077) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-36'-(2-氟苄基)-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1666] (1078) (3S,6S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-30-异丁基-3,6-二异丙基-1,4,10,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1667] (1079) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1668] (1080) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1669] (1081) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1670] (1082) (6S,9S,13R,16S,21aS,27S,33S,35aS,39aS)-6-((S)-仲丁基)-27-(3-氯-4-(三氟甲基)苯乙基)-33-(环己基甲基)-9-异丁基-16-异丙基-10,13,17,31,34-五甲基

二十二氢-1H,26H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-g:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-19,1'-环戊烷]-5,8,11,15,18,21,26,29,32,35,39(12H,20H,35aH,39aH)-十一酮,

[1671] (1083) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环戊基-7',12',13',16',20',34',37'-七甲基-36'-(3-甲基苄基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1672] (1084) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9,30-二异丁基-3-异丙基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1673] (1085) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,16,19,22,25,30,31-七甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1674] (1086) (3S,9S,18S,21S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1675] (1087) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-8-[(5-甲基-3-吡啶基)甲基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1676] (1088) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-(间甲基苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1677] (1089) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33,36-十二酮, (1090) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-28-异丁基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1678] (1091) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七

甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1679] (1092) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-9-(5,5-二氟戊基)-3-异丁基-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1680] (1093) (3S,9S,18S,21S,25S,28S,34R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-硫杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1681] (1094) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(2-甲基磺酰基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1682] (1095) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-6,6,7,16,19,22,25,31-八甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂双环[32.4.0]三十八烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1683] (1096) (9'S,12'S,16'S,19'S,24a'S,26'R,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-环己基-36'-(环己基甲基)-12'-异丁基-7',13',17',20',34',37'-六甲基-26'-苄基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1684] (1097) (6'S,12'S,21'S,23a'S,31'R,34'S,39a'S)-21'-((S)-仲丁基)-12'-(环己基甲基)-34'-异丁基-10',13',16',19',31',35'-六甲基-6'-(4-(三氟甲基)苯乙基)二十四氢螺[环戊烷-1,37'-吡啶并[1,2-a]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',29',33',36',39'(23a'H,30'H,38'H)-十一酮,

[1685] (1098) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-35-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1686] (1099) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18,35-二环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1687] (1100) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基) 甲基]-3,30-二异丁基-9-[(2-甲氧基苯基) 甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1688] (1101) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-异丁基-28-[(1R) -1-甲氧基乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1689] (1102) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-5-(环丙氧基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1690] (1103) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1691] (1104) (3S,6S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环己基甲基)-9-[2-(3,3-二氟氮杂环丁烷-1-基) 乙基]-3-异丙基-1,4,10,16,19,22,25,30,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-6-(2,2,2-三氟乙基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1692] (1105) (3S,6S,9S,12S,18S,27S,30S,34R) -6-苄基-18-[(4-氯苯基) 甲基]-12-[2-[3-氟-4-(三氟甲基) 苯基] 乙基]-9-异丁基-3-异丙基-4,7,10,16,19,22,25,30,31,34-十甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1693] (1106) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,33,36-六甲基-15-(哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1694] (1107) (8S,11S,17S,26S,29S,33R,36S) -17-[(4-氯苯基) 甲基]-8,36-二异丁基-29-异丙基-9,15,18,21,24,30,33,37-八甲基-26-[(1S) -1-甲基丙基]-11-[2-[4-(三氟甲基) 苯基] 乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1695] (1108) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-22-[2-(3,3-二氟氮杂环丁烷-1-基)-2-氧代-乙基]-9-异丁基-19-(甲氧基甲基)-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S) -1-甲

基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1696] (1109) (3S,9S,18S,21S,25S,28S,31S,34S)-31-烯丙基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1110) (4R,7S,10S,13S,16S,22S,31S,34S)-10-苄基-22-[4-氯苯基]甲基]-13-异丁基-7-异丙基-4,8,11,14,20,23,26,29-八甲基-31-[(1S)-1-甲基丙基]-16-[2-[4-(三氟甲基)苯基]乙基]-1,5,8,11,14,17,20,23,26,29,32-十一氮杂双环[32.4.0]三十八烷-2,6,9,12,15,18,21,24,27,30,33-十一酮,

[1697] (1111) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1698] (1112) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8,18-二((S)-仲丁基)-35-(环己基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1699] (1113) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙基-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1700] (1114) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环丁基甲基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1701] (1115) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(异戊氧基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1702] (1116) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1703] (1117) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基

甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代-11-戊基三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1704] (1118) (7'S,16'S,19'S,23'S,26'S,31a'S,37'S,39a'R)-16'-((S)-仲丁基)-37'-(3-氯-4-(三氟甲基)苯乙基)-7'-(环己基甲基)-26'-异丙基-8',11',14',19',20',24',27'-七甲基-23'-(哌啶-1-羰基)二十四氢-2'H,6'H-螺[环戊烷-1,29'-吡啶并[2,1-o]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-6',9',12',15',18',21',25',28',31',36',39'(22'H,30'H)-十一酮,

[1705] (1119) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-18-[(4-氯苯基)甲基]-3-异丁基-9-(异戊氧基甲基)-4,7,16,19,22,25,30,31-八甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1706] (1120) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-N,N,5,6,12,16,19,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1707] (1121) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[1708] (1122) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-((2-羟基-2-甲基丙氧基)甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1123) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(5,5-二氟戊基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1709] (1124) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1710] (1125) (8S,11S,17S,26S,29S,33S,36S)-8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-

甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[1711] (1126) (1R,4S,7S,16S,22S,25S,31S,34R)-16-[(4-氯苯基)甲基]-25,31-二异丁基-4-异丙基-9,12,15,18,24,30-六甲基-7-[(1S)-1-甲基丙基]-22-[2-[4-(三氟甲基)苯基]乙基]螺[3,6,9,12,15,18,21,24,27,30,33]-十一氮杂双环[32.4.0]三十八烷-28,1'-环戊烷]-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1712] (1127) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-9-[[2-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1713] (1128) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环丁基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1714] (1129) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-22-[[2-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1715] (1130) (3S,9S,18S,21S,25S,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-31-乙基-21-异丁基-28-异丙基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1716] (1131) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代-22-丙基三十六氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-15-甲酰胺,

[1717] (1132) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1718] (1133) (3S,9S,12S,18S,27S,30S,34R)-18-[(4-氯苯基)甲基]-27-环己基-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1719] (1134) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-(3-甲基丁-2-烯基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三

十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1135) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(3,3-二氟-1-哌啶基)乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[1720] (1136) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(3,3,4,4-四氟吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1721] (1137) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1722] (1138) (3S,9S,18S,21S,25S,28S,31R,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-31-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1723] (1139) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1724] (1140) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1725] (1141) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1726] (1142) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1727] (1143) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1728] (1144) (3S,9S,18S,21S,25S,28S,34S,36R) -21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1729] (1145) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1730] (1146) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1731] (1148) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-N,N,5,6,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1732] (1149) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1733] (1150) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-(3,3-二甲基吡咯烷-1-羰基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1734] (1151) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1735] (1152) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-36-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1736] (1153) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1737] (1154) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1738] (1155) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(2-溴-5-碘-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1739] (1156) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-25-[(3-氯-5-碘-苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1740] (1157) (3S,9S,18S,21S,25S,28S,31S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-31-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1741] (1158) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1742] (1159) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1160) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-

2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1743] (1161) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(4-甲基哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1744] (1162) (3S,9S,18S,21S,25S,28S,34S,36R) -9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1745] (1163) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1746] (1164) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1747] (1165) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1748] (1166) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1749] (1167) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1750] (1168) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(3,3,4,4-四氟吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1751] (1169) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基)甲基]-3,30-二异丁基-18-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-

34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1752] (1170) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1753] (1171) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1754] (1172) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-25-(4-甲基哌啶-1-羰基)-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1755] (1173) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1756] (1174) (5S,8S,11S,15S,18S,21R,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,33,36-八甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1757] (1175) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1176) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1758] (1177) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-2-氟-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一

氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1759] (1178) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1760] (1179) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1761] (1180) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(噁唑烷-3-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1762] (1181) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(4-(氧杂环丁烷-3-基)哌嗪-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1763] (1182) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1764] (1183) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1765] (1184) (3S,9S,12S,18S,27S,30S,34S) -18-苄基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1766] (1185) (6'S,12'S,21'S,24'S,27a'R,33'S,38a'S) -21'-((S)-仲丁基)-6'-(3-氯-4-(三氟甲基)苯乙基)-33'-环己基-12'-(环己基甲基)-24'-异丁基-10',13',16',19',25',34'-六甲基二十四氢-5'H-螺[环戊烷-1,36'-二吡咯并[1,2-e1:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',23',26',32',35',38'(27'H,37'H)-十一酮,

[1767] (1186) (3S,9S,12S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,12,13,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1768] (1187) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-25-[(2,6-二氟苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1769] (1188) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(噁唑烷-3-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1770] (1189) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-22-乙基-21-异丁基-7,10,13,16,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1771] (1190) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1772] (1191) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-[4-(氧杂环丁烷-3-基)哌嗪-1-羰基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1773] (1192) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1774] (1193) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1775] (1194) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

- [1776] (1195) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(5-溴-2-甲基-苯基) 甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮, (1196) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[4-(三氟甲基) 苯基] 甲基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1777] (1197) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基) 苯基] 乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1778] (1198) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1779] (1199) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1780] (1200) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1781] (1201) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-25-乙氧基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,
- [1782] (1202) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基) 甲基]-12-[(3-碘苯基) 甲基]-3,30-二异丁基-1,6,6,7,12,16,19,22,25,31-十甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,
- [1783] (1203) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-9-(环己基甲基)-7-乙基-21-异丁基-10,13,16,22,26,29-六甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1784] (1204) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1785] (1205) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-33-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,
- [1786] (1206) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1787] (1207) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3,3,4,4-四氟吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1788] (1208) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1789] (1209) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1790] (1210) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1791] (1211) (5S,8S,11S,15S,18S,21S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,33,36-八甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1792] (1212) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(5-溴-2-氯-苯基) 甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S) -1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1793] (1213) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1794] (1214) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1795] (1215) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1796] (1216) (3S,9S,12S,18S,27S,30S,34S) -12-[(5-溴-2-噻吩基) 甲基]-9-丁基-18-[(4-氯苯基) 甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1797] (1217) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-N,N,5,6,12,16,19,33-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1798] (1218) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-33-乙基-11-异丁基-5,6,12,15,19,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1799] (1219) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-碘苯基) 甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-18-[[4-(三氟甲氧基) 苯基] 甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1800] (1220) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,6,16,19,33,

36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1801] (1221) (5S,8S,11S,15R,18S,21S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,21,33,36-八甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1802] (1222) (5S,8S,11S,15R,18S,21R,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,21,33,36-八甲基-35-(4-甲基苄基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[1803] (1223) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1804] (1224) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1805] (1225) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,8,12,15,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1806] (1226) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-9-乙基-25-[(3-氟-5-碘-苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1807] (1227) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-13-乙基-21-异丁基-7,10,16,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1808] (1228) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮

- 杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
[1809] (1229) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-(3,3,4,4,5,5-六氟哌啶-1-羰基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
[1810] (1230) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-[4-氟苯基]甲基]-25-[3-碘苯基]甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,
[1811] (1231) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-25-乙氧基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,
[1812] (1232) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
[1813] (1233) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
[1814] (1234) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-5,6,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
[1815] (1235) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
[1816] (1236) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
[1817] (1237) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异戊基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1818] (1238) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(1,1-二氧硫代吗啉-4-羰基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1819] (1239) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,18,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1820] (1240) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(5-溴-3-吡啶基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1821] (1241) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1822] (1242) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1823] (1243) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,23,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1824] (1244) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1825] (1245) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,

29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1826] (1246) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基) 甲基]-9,16-二异丁基-31-[(4-甲氧基苯基) 甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1827] (1247) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(噁唑烷-3-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1828] (1248) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1829] (1249) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-9-乙基-25-[(2-氟-3-碘-苯基) 甲基]-16-异丁基-31-[(4-甲氧基苯基) 甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1830] (1250) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基) 苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1831] (1251) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-18-环戊基-11-(环戊基甲基)-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1832] (1252) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-12-乙基-29-(3-氟-4-(三氟甲基) 苯乙基)-11-异丁基-N,N,5,16,19,33,36-七甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1833] (1253) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基) 苯基] 乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1834] (1254) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-

(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1835] (1255) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-16-乙基-21-异丁基-7,10,13,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1836] (1256) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-25-[(2,3-二氟苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1837] (1257) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1838] (1258) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1839] (1259) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1840] (1260) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1841] (1261) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1842] (1262) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-

4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1843] (1263) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-25-(1,1-二氧化-1,4-噻嗪烷-4-羰基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1844] (1264) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-25,25-二氟-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1845] (1265) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-25-(3,3,4,4,5,5-六氟哌啶-1-羰基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1846] (1266) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-12-乙基-11-异丁基-5,16,19,33,36-五甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1847] (1267) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1848] (1268) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-25-[(2,5-二氟苯基)甲基]-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1849] (1269) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-(环戊基甲基)-N,N,5,12,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1850] (1270) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36,36-二氟-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1851] (1271) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,

13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1852] (1272) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-33-乙基-11-异丁基-5,6,12,16,19,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1853] (1273) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-25-(3,3-二甲基吡咯烷-1-羰基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1854] (1274) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1855] (1275) (3S,9S,18S,21S,25S,28S,34S)-21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1856] (1276) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-33-乙基-11-异丁基-18-异丙基-5,6,12,16,19,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1857] (1277) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1858] (1278) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1859] (1279) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-25-(1,1-二氧化-1,4-噻嗪烷-4-羰基)-21-异丁基-7,10,13,16,22,29-六甲基-18,28-双[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1860] (1280) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(3,3-二甲基吡咯烷-1-羰基)-11-异丁基-

18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1861] (1281) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1862] (1282) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-12-乙基-11-异丁基-N,N,5,16,19,33,36-七甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1863] (1283) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(氮杂环丁烷-1-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1864] (1284) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-[4-(氧杂环丁烷-3-基)哌嗪-1-羰基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1865] (1285) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1866] (1286) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(2-氟-5-碘-苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1867] (1287) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-N,N,5,16,19,33,36-七甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1868] (1288) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一

氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1869] (1289) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1870] (1290) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1871] (1291) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(4-甲基哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1872] (1292) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异戊基-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1873] (1293) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1874] (1294) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(4-(氧杂环丁烷-3-基)哌嗪-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1875] (1295) (3S,9S,18S,21S,25S,28S,34S) -21-环丁基-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1876] (1296) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1877] (1297) (3S,9S,18S,21S,25S,28S,34S,36R) -28-环己基-3-[2-[3,5-二氟-4-(三

氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1878] (1298) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲氧基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1879] (1299) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1880] (1300) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,33,35,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1881] (1301) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1882] (1302) (3S,9S,18S,21S,25S,28S,31S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-31-乙基-21-异丁基-7,10,13,16,22,26,29,31-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1883] (1303) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1884] (1304) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-溴-2-氟-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1885] (1305) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(4-氟苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,

11,14,17,20,23,26,29,32-十一酮,

[1886] (1306) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1887] (1307) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1888] (1308) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1889] (1309) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18,35-二环戊基-11-异丁基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1890] (1310) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1891] (1311) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,11-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1892] (1312) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1893] (1313) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-苄基-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1894] (1314) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯

基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1895] (1315) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,22,26,29-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1896] (1316) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1897] (1317) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1898] (1318) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(5-氯-2-噻吩基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1899] (1319) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1900] (1320) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1901] (1321) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1902] (1322) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,

17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1903] (1323) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(3,3-二甲基吡咯烷-1-羰基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1904] (1324) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-12-乙基-29-(3-氟-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1905] (1325) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1906] (1326) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异戊基-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1907] (1327) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氟苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1908] (1328) (3S,6S,9S,13R,16S,22R,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环戊基-9-异丁基-3,4,10,13,17,22,29,32-八甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1909] (1329) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(噁唑烷-3-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1910] (1330) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-25-乙氧基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1911] (1331) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18- 环戊基-11- 异丁基-5,12,15,19,33,36- 六甲基-35- (4- 甲基苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1912] (1332) (5S,8S,11S,14aR,20S,25aS,31S,37S,39aS) -8- ((S) -仲丁基) -31- (3-氯-4- (三氟甲基) 苯乙基) -37- (环己基甲基) -11- 异丁基-20- 异丙基-5,6,12,21,35,38- 六甲基二十四氢-2H,4H- 螺[氮杂环丁二烯并[1,2-j] 二吡咯并[1,2-e1:1',2'-v] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-23,1'- 环戊烷] -4,7,10,13,19,22,25,30,33,36,39 (14H,24H) -十一酮,

[1913] (1333) (3S,9S,18S,21S,25S,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -28- 环己基-9- (环己基甲基) -21- 异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (吗啉-4- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[1914] (1334) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11- 异丁基-18- 异丙基-5,12,16,19,33,36- 六甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1915] (1335) (5S,8S,11S,15S,18S,23aS,25R,29S,35S,37aS) -8,18- 二((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -25- 乙氧基-11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (吡咯烷-1- 羰基) -35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1916] (1336) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -18,35- 二环戊基-29- (3,5- 二氟-4- (三氟甲基) 苯乙基) -11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (吗啉-4- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1917] (1337) (3S,9S,18S,21S,25S,28S,34S) -28- 环己基-9- (环己基甲基) -3- [2- [3,5- 二氟-4- (三氟甲基) 苯基] 乙基] -36,36- 二氟-21- 异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (吗啉-4- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[1918] (1338) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15- (3-氧杂-8- 氮杂双环[3.2.1] 辛烷-8- 羰基) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18- 环戊基-33- 乙基-11- 异丁基-5,6,12,16,19,36- 六甲基-35- (丙氧基甲基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[1919] (1339) (3S,9S,18S,21S,25S,28S,34S,36R) -3- [2- [3-氯-4- (三氟甲基) 苯基] 乙

基]-28-环己基-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1920] (1340) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-(环戊基甲基)-29-(3-氟-4-(三氟甲基)苯乙基)-N,N,5,12,16,19,33,36-八甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1921] (1341) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1922] (1342) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-28-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1923] (1343) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1924] (1344) (6S,9S,13S,16S,22S,25S,31S,34S)-31-[(4-氟苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1925] (1345) (3S,9S,15S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,15,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1926] (1346) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1927] (1347) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(4-甲基哌啶-1-羰基)-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1928] (1348) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-25,25-二氟-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1929] (1349) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-15-(1,1-二氧硫代吗啉-4-羰基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1930] (1350) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,
- [1931] (1351) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1932] (1352) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-12-[(2-氯-5-碘-苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,
- [1933] (1353) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1934] (1354) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26-六甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [1935] (1355) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [1936] (1356) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-

(3-氯-4-(三氟甲基)苯乙基)-11-异戊基-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1937] (1357) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1938] (1358) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-9-乙基-25-[(5-碘-2-甲基-苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1939] (1359) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1940] (1360) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1941] (1361) (3S,9S,12S,18S,27S,30S,34S)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1942] (1362) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1943] (1363) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-环丁基-28-环己基-9-(环己基甲基)-36,36-二氟-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1944] (1364) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并

[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1945] (1365) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-12-乙基-11-异丁基-N,N,5,6,16,19,33,36-八甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[1946] (1366) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1947] (1367) (3S,9S,18S,21S,25S,28S,34S,36R)-28-环己基-9-(环己基甲基)-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1948] (1368) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-36-乙基-11-异丁基-5,6,12,16,19,33-六甲基-35-(4-甲基苄基)-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1949] (1369) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1950] (1370) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1951] (1371) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-(环戊基甲基)-5,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[1952] (1372) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-溴-5-氟-苯基)甲基]-22-丁基-9-乙基-16-异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一

氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1953] (1373) (3S,9S,18S,21S,25R,28S,31S,34S,36S) -31-苄基-9-[(4-氯苯基) 甲基]-36-羟基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1954] (1374) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1955] (1375) (3S,9S,18S,21S,25R,28S,31S,34S,36R) -31-苄基-9-[(4-氯苯基) 甲基]-36-羟基-28-异丁基-7,10,13,16,21,22,25,29,32-九甲基-18-[(1S) -1-甲基丙基]-3-[2-[4-(三氟甲基) 苯基] 乙基]-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1956] (1376) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[1957] (1377) (6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S) -1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1958] (1378) (6S,9S,13R,16S,22S,25S,28R,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S) -1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1959] (1379) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S) -1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1960] (1380) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-18-(环己基甲基)-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1961] (1381) (3S,9S,12S,15R,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S) -1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1962] (1382) (6S,9S,13R,16S,22S,25S,28R,31S,34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S) -1-甲

基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1963] (1383) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-4,9,10,13,14,19,19,20,28,29,32-十一甲基-6-[(1S)-1-甲基丙基]-31-[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1964] (1384) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1965] (1385) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S)-1-甲基丙基]-18-[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1966] (1386) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1967] (1387) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1968] (1388) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1969] (1389) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1970] (1390) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环己基甲基)-3,9-二异丁基-1,6,6,7,15,16,19,22,25,30,31,34-十二甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1971] (1391) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1972] (1392) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙

基]-16,22-二异丁基-4,9,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1973] (1393) (3S,9S,12S,15R,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,15,16,19,22,25,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1974] (1394) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1975] (1395) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1976] (1396) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1977] (1397) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1978] (1398) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-1,6,6,7,16,19,22,25,30,31,34-十一甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1979] (1399) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1980] (1400) (6S,9S,13R,16S,22S,25S,28R,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9,16,22-三异丁基-4,10,13,14,19,19,20,28,29,32-十甲基-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1981] (1401) (3S,6S,9S,13R,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-3,4,10,13,14,19,19,20,29,32-十甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1982] (1402) (3S,6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,22-二异丁基-3,4,9,10,13,14,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1983] (1403) (6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9,16,22-三异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1984] (1404) (3S,9S,12S,18S,27S,30S,34S) -12-[(3-溴苯基)甲基]-9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1985] (1405) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31-(环戊基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1986] (1406) (3S,9S,12S,18S,27S,30S,34R) -12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-9-丙-2-炔基-18-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1987] (1407) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-12-[(3-氯苯基)甲基]-18-[(4-氯苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1988] (1408) (6S,9S,13R,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,13,14,19,19,20,29,32-九甲基-22-(3-甲基丁-2-烯基)-6-[(1S)-1-甲基丙基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1989] (1409) (3S,9S,12S,18S,27S,30S,34S) -3-苄基-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1990] (1410) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-3-丙基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1991] (1411) (1S,7S,10S,14S,17S,26S,32S) -32-[(3-碘苯基)甲基]-7,14-二异丁基-3,4,4,9,13,19,22,25,28-九甲基-17-[(1S)-1-甲基丙基]-10-(哌啶-1-羰基)-3,6,9,13,16,19,22,25,28,31,34-十一氮杂双环[24.8.6]四十烷-2,5,8,12,15,18,21,24,27,30,

33-十一酮,

[1992] (1412) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-[(4-氯苯基)甲基]-3,30-二异丁基-12-[(3-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1993] (1413) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-31-(环丁基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1994] (1414) (6S,9S,13S,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1995] (1415) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-溴苯基)甲基]-22-丁基-31-[(4-氯苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1996] (1416) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18-(环己基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1997] (1417) (6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-9-己基-25-[(3-碘苯基)甲基]-16-异丁基-31-[(4-甲氧基苯基)甲基]-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[1998] (1418) (3S,9S,12S,18S,27S,30S,34R) -18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31,34-十甲基-9-(3-甲基丁-2-烯基)-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[1999] (1419) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(3-甲基丁-2-烯基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2000] (1420) (6S,9S,13S,16S,22S,25S,31S,34S) -22-丁基-31-(环己基甲基)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2001] (1421) (3S,9S,12S,18S,27S,30S,34S) -18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-9-(2-甲基烯丙基)-27-[(1S)-

1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2002] (1422) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-3-(环丁基甲基)-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2003] (1423) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-(环戊基甲基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2004] (1424) (2aS,5S,11S,14S,20S,23S,30aS,33S,36S)-33-((S)-仲丁基)-14-丁基-5-(环戊基甲基)-11-(3-碘苄基)-20-异丁基-4,7,16,17,17,22,35,36-八甲基-23-(哌啶-1-羰基)二十四氢氮杂环丁二烯并[1,2-j]吡啶并[1,2-a][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-3,6,9,12,15,18,21,25,31,34,37(1H,22H,27H)-十一酮,

[2005] (1425) (6S,9S,13S,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2006] (1426) (3S,9S,12S,18S,27S,30S,34S)-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-9-丙-2-炔基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2007] (1427) (6S,9S,13R,16S,22S,25S,31S,34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,13,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-22-丙-2-炔基-31-[[4-(三氟甲基)苯基]甲基]-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2008] (1428) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-22-丙-2-炔基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2009] (1429) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-31-[(4-氯苯基)甲基]-25-[(3-碘苯基)甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-22-(2-甲基烯丙基)-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2010] (1430) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-18-[(4-氯苯基)甲基]-12-[(3-碘苯基)甲基]-30-异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-3-(2-苯基乙基)-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2011] (1431) (3S,9S,12S,18S,27S,30S,34S)-9-烯丙基-18-[(4-氯苯基)甲基]-12-

[(3-碘苯基) 甲基] -3,30-二二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2012] (1432) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-丁基-31-(环戊基甲基)-25-[(3-碘苯基) 甲基]-9,16-二异丁基-3,4,10,14,19,19,20,29,32-九甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2013] (1433) (3S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基) 甲基]-30-异丁基-3-异戊基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-18-[[4-(三氟甲基) 苯基] 甲基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2014] (1434) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2015] (1435) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-36-环己基-17-(环己基甲基)-8-乙基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2016] (1436) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2017] (1437) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-9-异丁基-22-(异戊氧基甲基)-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2018] (1438) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-22-乙基-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基) 螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2019] (1439) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-36-环戊基-8-乙基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2020] (1440) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-17-(环己基甲基)-36-环戊基-29-异丁基-8-(异戊氧基甲基)-9,15,18,21,24,30,34,

37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2021] (1441) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-乙基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2022] (1442) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2023] (1443) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-22-(异戊氧基甲基)-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2024] (1444) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-22-(羟甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2025] (1445) (3S,9S,18S,21S,25S,28S,34R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[36-氧杂-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.4.0]三十八烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2026] (1446) (8R,11S,17S,26S,29S,33S,36S)-8-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-环戊基-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2027] (1447) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-烯丙基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-9-异丁基-16-异丙基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2028] (1448) (8R,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-(羟甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2029] (1449) (8S,11S,17S,26S,29S,33S,36S)-8-烯丙基-11-[2-[3-氯-4-(三氟甲基)

苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2030] (1450) (3S,6S,9S,12S,18S,27S,30S,34S)-6-苄基-27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,10,16,19,22,25,31-八甲基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2031] (1451) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(5,5-二氟戊基)-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2032] (1452) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21,28-二异丁基-18-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2033] (1453) (3S,9S,12S,18S,27S,30S,34S)-27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31-九甲基-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2034] (1454) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2035] (1455) (3S,9S,12S,18S,27S,30S,34S)-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2036] (1456) (3S,9S,12S,18S,27S,30S,34S)-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2037] (1457) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2038] (1458) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2039] (1459) (3S,9S,15S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-15-乙基-21-异丁基-28-异丙基-7,10,13,22,25,29-六甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2040] (1460) (3S,9S,12S,18S,27S,30S,34R) -27-环己基-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2041] (1461) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2042] (1462) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2043] (1463) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,33,36-七甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2044] (1464) (8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-24-乙基-8-[(2-羟基-2-甲基-丙氧基)甲基]-29,36-二异丁基-17-(异戊氧基甲基)-9,15,18,21,30,33,37-七甲基-26-[(1S)-1-甲基丙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2045] (1465) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2046] (1466) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2047] (1467) N-叔丁基-2-[[(3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]乙酰胺,

[2048] (1468) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -18- 环戊基-11- 异丁基-6,12,15,19,32,33,36- 七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[2049] (1469) (3S,9S,18S,21S,25R,28S,34S) -9- (环己基甲基) -28- 乙基-3- [2- [3-氟-4- (三氟甲基) 苄基] 乙基] -21- 异丁基-7,10,13,16,22,25,29- 七甲基-18- [(1S) -1- 甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2050] (1470) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R) -15'- ((S) -仲丁基) -36'- (3-氯-4- (三氟甲基) 苄基) -25'- 环戊基-7',10',13',18',19',22',26'- 七甲基-6'- (4- (三氟甲基) 苄基) 二十四氢-5'H- 螺[环戊烷-1,28'- 二吡咯并[2,1-i:2',1'-o] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38' (21'H,29'H) - 十一酮,

[2051] (1471) (3S,9S,18S,21S,25R,28S,34S) -3- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -28- 环戊基-21- 异丁基-7,10,13,16,22,25,29- 七甲基-18- [(1S) -1- 甲基丙基] -9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷]-2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2052] (1472) (6S,9S,13R,16S,22S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -4- 乙基-22- [(2-羟基-2- 甲基- 丙氧基) 甲基] -9,16- 二异丁基-31- (异戊氧基甲基) -10,13,17,19,19,23,29,32- 八甲基-6- [(1S) -1- 甲基丙基] -1,4,7,10,14,17,20,23,26,29,32- 十一氮杂双环[32.2.0] 三十六烷-2,5,8,11,15,18,21,24,27,30,33- 十一酮,

[2053] (1473) (3S,9S,12S,18S,27S,30S,34R) -25- 丁基-12- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -9- [(2-羟基-2- 甲基- 丙氧基) 甲基] -3,30- 二异丁基-18- (异戊氧基甲基) -4,6,6,16,19,22,31,34- 八甲基-27- [(1S) -1- 甲基丙基] -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

[2054] (1474) (3S,9S,12S,18S,27S,30S,34R) -18- (环己基甲基) -12- [2- [3-氟-4- (三氟甲基) 苄基] 乙基] -3,9,30- 三异丁基-4,6,6,10,16,19,22,25,31,34- 十甲基-27- 丙-2- 炔基-1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

[2055] (1475) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苄基) -18- 环戊基-11- 异丁基-5,6,12,15,19,33,36- 七甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[2056] (1476) (3S,9S,12S,18S,27S,30S,34R) -12- [2- [3-氯-4- (三氟甲基) 苄基] 乙基] -25- 乙基-30- [(2-羟基-2- 甲基- 丙氧基) 甲基] -3,9- 二异丁基-18- (异戊氧基甲基) -4,6,6,10,16,19,22,31,34- 九甲基-27- [(1S) -1- 甲基丙基] -1,4,7,10,13,16,19,22,25,28,31- 十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32- 十一酮,

[2057] (1477) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2058] (1478) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-9- (环己基甲基) -28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2059] (1479) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -37- (环己基甲基) -18-环戊基-6,11,12,15,19,38-六甲基二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39 (14H,22H) -十一酮,

[2060] (1480) N-叔丁基-2-[[(3S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-3,30-二异丁基-18- (异戊氧基甲基) -1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S) -1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]乙酰胺,

[2061] (1481) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-6,11,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2062] (1482) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -18-环戊基-11-异丁基-5,6,12,15,19,32,33,36-八甲基-35- (4- (三氟甲基) 苄基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2063] (1483) (3S,9S,18S,21S,25R,28S,34S,36R) -9- (环己基甲基) -3-[2-[3-氟-4- (三氟甲基) 苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2064] (1484) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-22-乙基-9-[(2-羟基-2-甲基-丙氧基) 甲基]-3,30-二异丁基-18- (异戊氧基甲基) -4,6,6,10,16,19,25,31,34-九甲基-27-[(1S) -1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2065] (1485) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S) -1-甲基丙基]-9- (对甲苯基甲基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-

2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2066] (1486) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2067] (1487) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R) -15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-25'-环戊基-18'-异丁基-7',10',13',19',22',26'-六甲基-6'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[2068] (1488) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,38-五甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

[2069] (1489) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,29-六甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2070] (1490) (3S,9S,18S,21S,25R,28S,34S) -18-丁基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2071] (1491) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2072] (1492) N-叔丁基-2-[[(8S,11S,17S,26S,29S,33R,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-29,36-二异丁基-17-(异戊氧基甲基)-9,15,18,21,24,30,33,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲氧基]乙酰胺,

[2073] (1493) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-18-异丙基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2074] (1494) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,38-六甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39 (14H,22H) -十一酮,

[2075] (1495) N-叔丁基-2-[[(2S,5S,14S,20S,23S,29S,32R) -20-[2-[3-氯-4-(三氟甲基)苯基]乙基]-7-乙基-23,29-二异丁基-14-(异戊氧基甲基)-1,10,13,16,22,26,26,28,32-九甲基-5-[(1S)-1-甲基丙基]-3,6,9,12,15,18,21,24,27,30,34-十一氧代-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2-基]甲氧基]乙酰胺,

[2076] (1496) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2077] (1497) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2078] (1498) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2079] (1499) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-35-(环己基甲基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2080] (1500) (8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-18-环戊基-11-异丁基-6,12,15,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2081] (1501) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2082] (1502) N-叔丁基-2-[[(3S,9S,12S,18S,27S,30S,34S) -3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-9-基]甲氧基]乙酰胺,

[2083] (1503) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

9-(环己基甲基)-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2084] (1504) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,32,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2085] (1505) (3S,9S,12S,18S,27S,30S,34R)-25-丁基-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-30-异丁基-18-(异戊氧基甲基)-3-异丙基-4,6,6,10,16,19,22,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2086] (1506) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2087] (1507) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2088] (1508) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2089] (1509) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-36,36-二氟-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2090] (1510) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2091] (1511) (3S,9S,12S,18S,27S,30S,34R)-18-(环己基甲基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-27-异丙基-4,6,6,10,16,19,22,25,31,34-十甲基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2092] (1512) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2093] (1513) N-叔丁基-2-[[(6S,9S,13R,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-4-乙基-9,16-二异丁基-31-(异戊氧基甲基)-10,13,17,19,19,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-22-基]甲氧基]乙酰胺,

[2094] (1514) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2095] (1515) (3S,9S,18S,21S,25R,28S,34S) -9-(5,5-二氟戊基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2096] (1516) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,19,22,25,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2097] (1517) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-6,12,15,19,32,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2098] (1518) (3S,9S,18S,21S,25R,28S,34S) -28-丁基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2099] (1519) (3S,9S,12S,18S,27S,30S,34R) -12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-25-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2100] (1520) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2101] (1521) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙

基]-28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2102] (1522) (8S,11S,15R,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-6,11,12,15,19,38-六甲基-37-(4-(三氟甲基)苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

[2103] (1523) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2104] (1524) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2105] (1525) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-25'-环戊基-7',10',13',18',19',22',26'-七甲基-6'-(4-甲基苄基)二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[2106] (1526) (3S,9S,12S,18S,27S,30S,34R)-18-(5,5-二氟戊基)-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9,30-三异丁基-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2107] (1527) (3S,9S,18S,21S,25R,28S,34S)-18-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2108] (1528) (3S,9S,12S,18S,27S,30S,34S)-25-乙基-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-12-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2109] (1529) (3S,9S,18S,21S,25R,28S,34S,36S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2110] (1530) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-

1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2111] (1531) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-6,12,15,19,32,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2112] (1532) (3S,9S,12S,18S,27S,30S,34S) -12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2113] (1533) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-丙-2-炔基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2114] (1534) (3S,9S,18S,21S,25R,28S,34S) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2115] (1535) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2116] (1536) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,32,33,36-九甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2117] (1537) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2118] (1538) N-叔丁基-2-[[(2S,5S,14S,20S,23S,29S,32S) -2,23,29-三异丁基-14-(异戊氧基甲基)-1,7,10,13,16,22,26,26,28-九甲基-5-[(1S)-1-甲基丙基]-3,6,9,12,15,18,21,24,27,30,34-十一氧代-20-[2-[4-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-32-基]甲氧基]乙酰胺,

[2119] (1539) (8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-6,11,12,15,19,32,33,36-八甲基二

十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2120] (1540) (5S,8S,11S,15R,18S,23aS,29S,31aR,37S,39aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-5,6,11,12,15,19,38-七甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,36,39(14H,22H)-十一酮,

[2121] (1541) (3S,9S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-1,4,6,6,10,16,19,22,25,31-十甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2122] (1542) (3S,6R,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-6,7,10,13,16,22,25,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1543) (6'S,15'S,18'S,22'R,25'S,30a'S,36'S,38a'R)-15'-((S)-仲丁基)-36'-(3-氯-4-(三氟甲基)苯乙基)-6'-(环己基甲基)-25'-环戊基-7',10',13',18',19',22',26'-七甲基二十四氢-5'H-螺[环戊烷-1,28'-二吡咯并[2,1-i:2',1'-o][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',17',20',24',27',30',35',38'(21'H,29'H)-十一酮,

[2123] (1544) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2124] (1545) (3S,9S,18S,21S,25R,28S,34S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.2.0]三十六烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2125] (1546) (3S,9S,12S,18S,27S,30S,34R)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-羟基-2-甲基-丙氧基)甲基]-3,30-二异丁基-18-(异戊氧基甲基)-4,6,6,10,16,19,22,25,31,34-十甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2126] (1547) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2127] (1548) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,

36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2128] (1549) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2129] (1550) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2130] (1551) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2131] (1552) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环戊基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2132] (1553) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-环丙基-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2133] (1554) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-环丁基-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2134] (1555) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[3-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2135] (1556) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(3-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2136] (1557) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

9-[(3-氟苯基) 甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,(1558)(5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,11-二异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2137] (1559) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-5-苯乙基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2138] (1560) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基-5-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2139] (1561) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-5-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2140] (1562) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2141] (1563) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2142] (1564) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2143] (1565) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三

氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2144] (1566) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环戊基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2145] (1567) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2146] (1568) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-11-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2147] (1569) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2148] (1570) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2149] (1571) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2150] (1572) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2151] (1573) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2152] (1574) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-

六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2153] (1575) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[3-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2154] (1576) (3S,9S,18S,21S,25S,28S,34S)-9-[(4-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2155] (1577) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5-异戊基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2156] (1578) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2157] (1579) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[2-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2158] (1580) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2159] (1581) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H)-十一酮,

[2160] (1582) (3S,9S,18S,21S,25R,28S,34S)-9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2161] (1583) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1584) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(邻甲苯基甲基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1585) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2162] (1586) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-环丙基-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2163] (1587) (3S,9S,18S,21S,25R,28S,34S) -9-[(3-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2164] (1588) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2165] (1589) (3S,9S,18S,21S,25R,28S,34S) -9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2166] (1590) (3S,9S,18S,21S,25R,28S,34S) -9-[(4-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2167] (1591) (3S,9S,18S,21S,25R,28S,34S) -9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2168] (1592) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,18-二异丙基-6,12,16,19,33,36-

六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2169] (1593) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2170] (1594) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1595) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-异戊基-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2171] (1596) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2172] (1597) (3S,9S,18S,21S,25R,28S,34S)-9-[(3-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2173] (1598) (3S,9S,18S,21S,25S,28S,34S)-9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2174] (1599) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(2-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2175] (1600) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-环己基-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2176] (1601) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)-5-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2177] (1602) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2178] (1603) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-(环丁基甲基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2179] (1604) (3S,9S,18S,21S,25R,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2180] (1605) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-9-[(4-甲氧基苯基)甲基]-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2181] (1606) (3S,9S,18S,21S,25R,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2182] (1607) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-乙基-18-异丙基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2183] (1608) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(2-苯基乙基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1609) (3S,9S,18S,21S,25S,28S,34S) -9-[(2-氯苯氧基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2184] (1610) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(3-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2185] (1611) (3S,9S,18S,21S,25S,28S,34S) -9-[(3-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2186] (1612) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2187] (1613) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2188] (1614) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(邻甲基苯基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2189] (1615) (3S,9S,18S,21S,25R,28S,34S) -9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2190] (1616) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-11-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2191] (1617) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2192] (1618) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环戊基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2193] (1619) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,11-二异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2194] (1620) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2195] (1621) (3S,9S,18S,21S,25R,28S,34S) -9-[(3-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2196] (1622) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5-环己基-35-(环己基甲基)-18-异丙基-6,11,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2197] (1623) (3S,9S,18S,21S,25R,28S,34S) -9-[(3-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2198] (1624) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-5-苯乙基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2199] (1625) (3S,9S,18S,21S,25R,28S,34S) -9-[(4-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2200] (1626) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(间甲苯基甲基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1627) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(2-苯基乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2201] (1628) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -5-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,19,33,36-六甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2202] (1629) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2203] (1630) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2204] (1631) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1632) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2205] (1633) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2206] (1634) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(2-苯基乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2207] (1635) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-[[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2208] (1636) (3S,9S,18S,21S,25S,28S,34S) -9-[(2-氯苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2209] (1637) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-[[3-

(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2210] (1638) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-乙基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2211] (1639) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-丙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2212] (1640) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2213] (1641) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-[2-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2214] (1642) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-(环丙基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2215] (1643) (3S,9S,18S,21S,25S,28S,34S) -9-[(3-溴苯基)甲基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2216] (1644) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环己烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2217] (1645) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2218] (1646) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2219] (1647) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(3,3-二氟丙基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2220] (1648) (8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,15,16,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2221] (1649) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2222] (1650) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18,21-二异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2223] (1651) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异戊基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2224] (1652) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,21-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2225] (1653) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2226] (1654) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2227] (1655) (3S,6R,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[4-氟苯基]甲基]-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2228] (1656) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2229] (1657) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11,18-二异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2230] (1658) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2231] (1659) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2232] (1660) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(3,3-二氟丙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2233] (1661) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2234] (1662) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2235] (1663) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2236] (1664) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2237] (1665) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-35-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2238] (1666) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2239] (1667) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,
- [2240] (1668) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2241] (1669) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2242] (1670) (8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2243] (1671) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18,21-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2244] (1672) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七

甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丁烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2245] (1673) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-1]-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2246] (1674) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,35,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2247] (1675) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2248] (1676) (11S,17S,26S,29S,33S,36S)-9-苄基-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2249] (1677) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2250] (1678) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-乙基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2251] (1679) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2252] (1680) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29,31,31-九甲基-18-[(1S)-

1-甲基丙基]-25-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2253] (1681) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,9,10,13,16,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2254] (1682) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2255] (1683) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-35-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2256] (1684) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,35-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2257] (1685) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2258] (1686) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-9,18-双[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2259] (1687) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(羟甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2260] (1688) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2261] (1689) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基

丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2262] (1690) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环丙氧基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,(1691) (3S,6R,9S,18S,21S,25R,28S,34S)-9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-异丙基-6,7,10,13,16,21,22,25,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2263] (1692) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2264] (1693) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2265] (1694) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2266] (1695) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环丙烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2267] (1696) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2268] (1697) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-8-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2269] (1698) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',

1'-u] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[2270] (1699) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2271] (1700) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(3,3-二氟丙基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2272] (1701) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-21-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2273] (1702) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-18-异丙基-5,6,11,12,15,19,32,33,36-九甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i]] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2274] (1703) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2275] (1704) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i]] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2276] (1705) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-11-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i]] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2277] (1706) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,15,19,33,36-七甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i]] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2278] (1707) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-18-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2279] (1708) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环己烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2280] (1709) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-35-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2281] (1710) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2282] (1711) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2283] (1712) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2284] (1713) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-(羟甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1714) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-36-乙基-11-异丁基-5,6,12,15,19,33-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2285] (1715) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-19'-异丙基-7',12',13',17',

20',33',34',37'-八甲基-16'-(吡咯烷-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[2286] (1716) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丁基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2287] (1717) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2288] (1718) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2289] (1719) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-28-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2290] (1720) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2291] (1721) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(羟甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2292] (1722) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2293] (1723) (3S,9S,18S,21S,25S,28S,34S)-18-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2294] (1724) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -35-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2295] (1725) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,38'S,40a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-38'-(4-氟苄基)-19'-异丙基-7',12',13',17',20',39'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40' (15'H,23'H) -十一酮,

[2296] (1726) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2297] (1727) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2298] (1728) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2299] (1729) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2300] (1730) (9'S,12'S,16'R,19'S,24a'S,30'S,32a'R,38'S,40a'S) -38'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',39'-六甲基二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40' (15'H,23'H) -十一酮,

[2301] (1731) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1732) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S) -9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙

基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[2302] (1733) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2303] (1734) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2304] (1735) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2305] (1736) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2306] (1737) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18,35-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2307] (1738) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环丙氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2308] (1739) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环戊基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2309] (1740) (3S,9S,18S,21S,25S,28S,34S)-21-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基

丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2310] (1741) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2311] (1742) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',16',20',33',34',37'-八甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[2312] (1743) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2313] (1744) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)-18-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2314] (1745) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2315] (1746) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-(环丁基甲基)-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2316] (1747) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2317] (1748) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2318] (1749) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2319] (1750) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2320] (1751) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,21,21,33,36-九甲基-15-(哌啶-1-羰基)二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,
- [2321] (1752) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2322] (1753) (9'S,12'S,16'S,19'S,24a'S,30'S,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',34',37'-七甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,
- [2323] (1754) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8,11-二异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2324] (1755) (3S,6R,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-[(4-氟苯基)甲基]-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2325] (1756) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,
- [2326] (1757) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1758) (8S,11S,

15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-6,12,16,19,33,36-六甲基-15-(吗啉-4-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2327] (1759) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-(环丁基甲基)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2328] (1760) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-乙基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2329] (1761) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2330] (1762) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺, (1763) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-11-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2331] (1764) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(环丙氧基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1765) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮, (1766) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]

三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2332] (1767) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11,18-二异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2333] (1768) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(羟甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2334] (1769) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(3,3-二氟丙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2335] (1770) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2336] (1771) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-28-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2337] (1772) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2338] (1773) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,15,16,19,32,33,36-十甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2339] (1774) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,25,29-七甲基-18,28-双[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2340] (1775) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-9-(环己基甲基)-18-乙基-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2341] (1776) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异戊基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2342] (1777) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2343] (1778) (9'S,12'S,16'R,19'S,24a'S,30'S,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[2344] (1779) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2345] (1780) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,8,12,16,19,33,36-八甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2346] (1781) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2347] (1782) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(3,3-二氟丙基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2348] (1783) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',16',20',33',34',37'-八甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',

32',35',38' (15'H,23'H) -十一酮,

[2349] (1784) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S) -9' - ((S) -仲丁基) -30' - (3-氯-4- (三氟甲基) 苯乙基) -36' - (环己基甲基) -19' -异丙基-7',12',13',16',17',20',33',34',37' -九甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯] -5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[2350] (1785) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基] -9- (环己基甲基) -36-乙氧基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25- (吗啉-4-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2351] (1786) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基] -28-环己基-9- (环己基甲基) -21- (环丙氧基甲基) -7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2352] (1787) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2353] (1788) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S) -9' - ((S) -仲丁基) -30' - (3-氯-4- (三氟甲基) 苯乙基) -36' - (环己基甲基) -19' -异丙基-7',12',13',17',20',33',34',37' -八甲基-16' - (吗啉-4-羰基) 二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯] -5',8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[2354] (1789) (3S,9S,18S,21S,25R,28S,34S,36R) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基] -9- (环己基甲基) -36-乙氧基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2355] (1790) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基] -21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S) -1-甲基丙基] -9- (对甲苯基甲基) -25- (吡咯烷-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2356] (1791) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29- (3-氯-4- (三氟甲基) 苯乙基) -35- (环己基甲基) -11-异丁基-8,18-二异丙基-5,6,12,16,19,33,36-七甲基-15- (哌啶-1-羰基) 二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2357] (1792) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4- (三氟甲基) 苯基]乙基] -21-异丁基-7,10,13,16,22,25,26,29-八甲基-18,28-双[(1S) -1-甲基丙基] -9- (对甲苯基

甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2358] (1793) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2359] (1794) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2360] (1795) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2361] (1796) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-环丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2362] (1797) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(3,3-二氟丙基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2363] (1798) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2364] (1799) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(羟甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2365] (1800) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2366] (1801) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-

4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,15,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2367] (1802) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,18,22,26,29-八甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2368] (1803) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,35-二异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2369] (1804) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1805) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2370] (1806) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-36'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十-酮,

[2371] (1807) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2372] (1808) (3S,9S,18S,21S,25R,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,25,26,29-九甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2373] (1809) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,15,16,19,33,36-八甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

- [2374] (1810) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16-环己基-31-(环己基甲基)-4,9,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(3-吡啶基甲基)-13-(吡咯烷-1-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,
- [2375] (1811) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-8-(环丙氧基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2376] (1812) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,
- [2377] (1813) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-11-异丁基-5,6,12,15,16,19,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2378] (1814) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2379] (1815) (3S,9S,18S,21S,25S,28S,34S) -28-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2380] (1816) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(4-氟苄基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2381] (1817) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环丁基甲基)-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2382] (1818) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2383] (1819) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,25,28,31,34,37(14H,22H,26H)-十二酮,

[2384] (1820) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环戊基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2385] (1821) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2386] (1822) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环丙基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2387] (1823) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2388] (1824) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2389] (1825) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环戊基-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2390] (1826) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-8-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2391] (1827) (5S,8S,11S,15S,18S,23aS,29S,32R,35S,37aS) -8-((S)-仲丁基)-29-(3-

氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,11,12,16,19,32,33,36-九甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2392] (1828) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2393] (1829) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2394] (1830) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-9-异戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2395] (1831) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2396] (1832) (3S,9S,18S,21S,25S,28S,34S)-9-丁基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2397] (1833) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异戊基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2398] (1834) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2399] (1835) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-环戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2400] (1836) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18,28-双[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2401] (1837) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-(羟甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2402] (1838) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-18-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2403] (1839) (9'S,12'S,16'S,19'S,24a'S,30'S,32a'R,38'S,40a'S) -38'-苄基-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-19'-异丙基-7',12',13',17',20',39'-六甲基-16'-(哌啶-1-羰基)二十六氢-5'H-螺[环戊烷-1,22'-三吡咯并[2,1-i:2',1'-o:2'',1''-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',37',40'(15'H,23'H)-十一酮,

[2404] (1840) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2405] (1841) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(2,2,2-三氟乙基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1842) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2406] (1843) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2407] (1844) (3S,6R,9S,18S,21S,25S,28S,34S) -9-苄基-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-异丙基-6,7,10,13,16,21,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-25-

(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2408] (1845) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丙烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2409] (1846) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-戊基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2410] (1847) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2411] (1848) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2412] (1849) (8S,11S,17S,26S,29S,33R,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,33,34,37-九甲基-26-[(1S)-1-甲基丙基]-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2413] (1850) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1851) (3S,9S,18S,21S,25R,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-36-乙氧基-21,28-二异丁基-7,10,13,16,22,25,26,29-八甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2414] (1852) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2415] (1853) (9'S,12'S,16'S,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(4-氟苄基)-19'-异丙基-7',12',13',17',20',33',34',37'-八甲基-16'-(哌啶-1-羰基)二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',

8',11',14',18',21',24',29',32',35',38' (15'H,23'H) -十一酮,

[2416] (1854) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-戊基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2417] (1855) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-18-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2418] (1856) (3S,9S,18S,21S,25R,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2419] (1857) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-28-(环丙氧基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2420] (1858) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2421] (1859) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-18-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2422] (1860) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁基甲基)-35-(环己基甲基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2423] (1861) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异戊基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2424] (1862) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-9-(环己基甲基)-18-环丙基-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2425] (1863) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,11-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2426] (1864) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-8-(2,2,2-三氟乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2427] (1865) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-N,N,7,10,13,16,22,26,29-九甲基-18,28-双[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2428] (1866) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-18-异丙基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2429] (1867) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-28-异丙基-N,N,7,10,13,16,22,26,29-九甲基-18-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,27,30,33-十一氧代-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-25-甲酰胺,

[2430] (1868) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(吡咯烷-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2431] (1869) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2432] (1870) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环

- [32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2433] (1871) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2434] (1872) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮, (1873) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(3-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,
- [2435] (1874) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-苯乙基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,
- [2436] (1875) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2437] (1876) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,
- [2438] (1877) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,
- [2439] (1878) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3,4-二氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,
- [2440] (1879) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-

(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2441] (1880) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(邻甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2442] (1881) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-(4-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2443] (1882) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2444] (1883) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-15-烯丙基-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2445] (1884) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2446] (1885) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2447] (1886) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[2-(3-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2448] (1887) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双

环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2449] (1888) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-碘苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2450] (1889) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2451] (1890) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2452] (1891) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2453] (1892) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-(3-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2454] (1893) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2455] (1894) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2456] (1895) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2457] (1896) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2458] (1897) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[2459] (1898) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-(3,3-二氟丙基)-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2460] (1899) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2461] (1900) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2462] (1901) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2463] (1902) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2464] (1903) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-甲氧基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2465] (1904) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2466] (1905) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2467] (1906) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2468] (1907) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-(3,3-二氟丙基)-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2469] (1908) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2470] (1909) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2471] (1910) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-碘苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2472] (1911) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-22-[3-(甲基氨基)-3-氧代-丙基]-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2473] (1912) (5S,8S,11S,14aR,21S,26aS,32S,38S,40aS)-8,21-二((S)-仲丁基)-32-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,22,36,39-六甲基-38-(4-甲基苄基)二十六氢-2H-螺[氮杂环丁二烯并[1,2-j]吡啶并[1,2-e1]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-24,1'-环戊烷]-4,7,10,13,20,23,26,31,34,37,40(25H)-十一酮,

[2474] (1913) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2475] (1914) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2476] (1915) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2477] (1916) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2478] (1917) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[2479] (1918) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3,5-二氟-4-(三氟甲基)苄基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-(三氟甲基)苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2480] (1919) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苄基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-(三氟甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2481] (1920) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[[4-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2482] (1921) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯

基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-22-[3-(甲基氨基)-3-氧代-丙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2483] (1922) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-甲氧基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2484] (1923) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2485] (1924) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-22-(邻甲苯基甲基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2486] (1925) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2487] (1926) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[[4-(二氟甲基)苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2488] (1927) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氰基苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2489] (1928) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-18-异丙基-7,10,13,16,22,26,29-七甲基-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2490] (1929) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三

十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2491] (1930) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[[4-(二氟甲基)苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲基苯基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2492] (1931) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2493] (1932) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2494] (1933) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2495] (1934) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2496] (1935) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-[(4-甲氧基苯基)甲基]-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲基苯基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2497] (1936) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环丁烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2498] (1937) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环戊基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-29-丙基-8-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2499] (1938) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2500] (1939) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2501] (1940) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2502] (1941) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2503] (1942) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2504] (1943) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3,4-二氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2505] (1944) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-碘苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2506] (1945) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[3-(三氟甲氧基)苯基]甲基螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2507] (1946) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环戊基甲基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙

基]-29-丙基-8-(3-吡啶基甲基)-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2508] (1947) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-3-[2-[4-(三氟甲基)苯基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2509] (1948) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2510] (1949) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2511] (1950) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2512] (1951) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[4-氟苯基]甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2513] (1952) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[4-氟苯基]甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2514] (1953) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[4-碘苯基]甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2515] (1954) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2516] (1955) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯

基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2517] (1956) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2518] (1957) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2519] (1958) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2520] (1959) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氰基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2521] (1960) N-(叔丁基)-2-(((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-基)甲氧基)乙酰胺,

[2522] (1961) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-环丁基-11-异丁基-N,N,5,6,12,16,19,33,36-九甲基-4,7,10,13,17,20,23,28,31,34,37-十一氧代三十四氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-15-甲酰胺,

[2523] (1962) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2524] (1963) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2525] (1964) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(4-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2526] (1965) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2527] (1966) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2528] (1967) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)-15-(丙-2-炔-1-基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2529] (1968) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯基)乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2530] (1969) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2531] (1970) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[[3-(三氟甲氧基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2532] (1971) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-(丙氧基甲基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-

十一酮,

[2533] (1972) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2534] (1973) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,19,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[2535] (1974) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS) -8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,16,19,33,36-七甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2536] (1975) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2537] (1976) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2538] (1977) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2539] (1978) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2540] (1979) (3S,9S,18S,21S,25S,28S,34S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18,28-双[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2541] (1980) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[2-(4,4-二氟-1-哌啶基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-

31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2542] (1981) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-氰基苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2543] (1982) (3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-19-异丙基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(4-吡啶基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-13-甲酰胺,

[2544] (1983) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2545] (1984) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2546] (1985) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)-22-[2-(4-吡啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2547] (1986) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2548] (1987) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(4-氟苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2549] (1988) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-18-环丁基-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-

31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2550] (1989) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2551] (1990) (3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-乙氧基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2552] (1991) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-异丁基-22-[(3-甲氧基苯基)甲基]-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2553] (1992) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,14,17,20,23,26,29,32]-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2554] (1993) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-9-[[4-(三氟甲基)苯基]甲基]螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2555] (1994) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-21-丙基-9-(对甲苯基甲基)螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2556] (1995) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-11,15-二异丁基-5,6,12,19,33,36-六甲基-35-(4-甲基苄基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2557] (1996) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32]-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2558] (1997) (3S,6S,9S,13S,16S,22R,25S,31S,34S)-22-苄基-25-[2-[3-氯-4-(三氟

甲基) 苯基] 乙基]-3,4,9,10,14,17,23,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2559] (1998) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)-21-丙基-螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2560] (1999) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环戊基甲基)-21-乙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(吗啉-4-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2561] (2000) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(3-溴苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2562] (2001) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2563] (2002) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-22-[(3-氰基苯基)甲基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2564] (2003) (5S,8S,11S,14aR,20S,25aS,31S,37S,39aS)-8,20-二((S)-仲丁基)-31-(3-氯-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,21,35,38-六甲基-37-(4-甲基苄基)二十四氢-2H,4H-螺[氮杂环丁二烯并[1,2-j]二吡咯并[1,2-e1:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-23,1'-环戊烷]-4,7,10,13,19,22,25,30,33,36,39(14H,24H)-十一酮,

[2565] (2004) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-21-丙基-9-(对甲苯基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2566] (2005) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-21-丙基-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2567] (2006) (3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-9-(丙氧基甲基)-25-(吡咯烷-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2568] (2007) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-17-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2569] (2008) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2570] (2009) (5S,8S,12R,15S,20aS,26S,29R,32S,34aS,39aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33-七甲基二十四氢螺[氮杂环丁二烯并[1,2-g]二吡咯并[1,2-j:1',2'-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,39(2H,11H,19H)-十一酮,

[2571] (2010) (5S,8S,12R,15S,20aS,26S,29R,32S,37aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33,36-八甲基二十二氢螺[氮杂环丁二烯并[1,2-g]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,37(2H,11H,19H)-十一酮,

[2572] (2011) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,3,4,9,10,14,17,23,29,32-十一甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2573] (2012) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-乙基-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2574] (2013) (5S,8S,12R,15S,20aS,26S,29R,32S,34aS,38aS)-5-((S)-仲丁基)-26-(3-氯-4-(三氟甲基)苯乙基)-32-(环己基甲基)-15-异丙基-8,9,12,16,29,30,33-七甲基二十二氢-25H-螺[双(氮杂环丁二烯并[1,2-g:1',2'-j]吡咯并[1,2-v][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-18,1'-环戊烷]-4,7,10,14,17,20,25,28,31,34,38(2H,11H,19H,34aH)-十一酮,

[2575] (2014) (9'S,12'S,16'R,19'S,24a'S,30'S,33'R,36'S,38a'S)-9'-((S)-仲丁基)-30'-(3-氯-4-(三氟甲基)苯乙基)-36'-(环己基甲基)-7'-乙基-19'-异丙基-12',13',16',20',33',34',37'-七甲基二十四氢-5'H-螺[环戊烷-1,22'-二吡咯并[2,1-i:2',

1'-u][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯]-5',8',11',14',18',21',24',29',32',35',38'(15'H,23'H)-十一酮,

[2576] (2015) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-5,35-双(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2577] (2016) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基-5-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2578] (2017) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-5-丁基-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2579] (2018) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5-异丁基-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2580] (2019) (5S,8S,11S,15R,18S,23aS,29S,32R,35S,37aS)-5-苄基-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-6,11,12,15,19,32,33,36-八甲基二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2581] (2020) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-36-异丙基-9,15,18,21,24,29,30,34,37-九甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2582] (2021) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[3-(4,4-二氟-1-哌啶基)丙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2583] (2022) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[2-(4,4-二氟-1-哌啶基)乙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2584] (2023) (3S,6S,9S,13S,16S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2585] (2024) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(2,2,2-三氟乙氧基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2586] (2025) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[2-(2-甲氧基乙氧基)乙基]-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2587] (2026) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(3-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2588] (2027) (3S,6S,9S,13R,16S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-3,4,10,13,14,17,29,32-八甲基-6,16-双[(1S)-1-甲基丙基]-31-(丙氧基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2589] (2028) (3S,6S,9S,13S,16S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2590] (2029) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(4-吡啶基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2591] (2030) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-氧杂螺[3.3]庚烷-6-基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2592] (2031) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(氧杂环丁烷-3-基甲基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2593] (2032) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-

36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-[2-(3-吡啶基)乙基]-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2594] (2033) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(4-吡啶基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2595] (2034) (3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-(2-羟基-2-甲基-丙氧基)乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2596] (2035) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2,2-二氟螺[3.3]庚烷-6-基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2597] (2036) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-[2-(2,2-二氟乙氧基)乙基]-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2598] (2037) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2-羟乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2599] (2038) 2-[2-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]乙氧基]-N,N-二甲基-乙酰胺,

[2600] (2039) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯苯氧基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2601] (2040) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯氧基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2602] (2041) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲

基)苯氧基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2603] (2042) (3S,9S,18S,21S,25S,28S,34S)-3-[(4-氯苯氧基)甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2604] (2043) (3S,9S,18S,21S,25S,28S,34S)-3-[(2-氯苯基)甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2605] (2044) (3S,9S,18S,21S,25S,28S,34S)-3-[(4-氯苯基)甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2606] (2045) (3S,9S,18S,21S,25S,28S,34S)-3-[(3-氯苯基)甲氧基甲基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2607] (2046) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊-2-烯基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2608] (2047) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(4-羟基-4-甲基-戊-2-烯基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2609] (2048) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2610] (2049) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2611] (2050) 3-[2-[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]亚乙基]氮杂

环丁烷-1-甲酸叔丁酯,

[2612] (2051) (11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[(E)-4-甲氧基丁-2-烯基]-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2613] (2052) 4-[(11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁酰胺,

[2614] (2053) (8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-亚基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2615] (2054) 4-[(11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁-2-烯酰胺,

[2616] (2055) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[3-[4-(三氟甲基)苯基]丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2617] (2056) 3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙基]氮杂环丁烷-1-甲酸叔丁酯,

[2618] (2057) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-29-(3-氯-4-(三氟甲氧基)苯乙基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2619] (2058) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-(4-甲基磺酰基苯基)乙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2620] (2059) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯

苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2621] (2060) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(2-(6-(二氟甲基)吡啶-3-基)乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2622] (2061) (3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-3-[2-(3,4-二氯-5-甲氧基-苯基)乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2623] (2062) (3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯-5-异丙氧基-苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2624] (2063) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-29-(2-(苯并呋喃-5-基)乙基)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2625] (2064) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-29-(2-(1-甲基-1H-吡啶-5-基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2626] (2065) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-29-(2-(1-甲基-1H-吡啶-6-基)乙基)-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2627] (2066) (3S,9S,18S,21S,25S,28S,34S)-3-[2-(3-丁氧基-4,5-二氯-苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2628] (2067) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(3-氟-4-(三氟甲氧基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2629] (2068) (3S,9S,18S,21S,25S,28S,34S) -9- (环己基甲基) -28- 异丙基-7,10,13,16,21,22,26,29- 八甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) -3- [2- (3,4,5- 三氯苯基) 乙基] 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2630] (2069) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) -29- (2- (5- (三氟甲基) 吡啶-2- 基) 乙基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[2631] (2070) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) -29- (2- (喹啉-6- 基) 乙基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[2632] (2071) 2,3- 二氯-5- [2- [(3S,9S,18S,21S,25S,28S,34S) -9- (环己基甲基) -28- 异丙基-7,10,13,16,21,22,26,29- 八甲基-18- [(1S) -1- 甲基丙基] -2,5,8,11,14,17,20,23,27,30,33- 十一氧代-25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -3- 基] 乙基] 苄腈,

[2633] (2072) 5- (2- ((5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-11- 异丁基-5,6,12,16,19,33,36- 七甲基-4,7,10,13,17,20,23,28,31,34,37- 十一氧代-15- (哌啶-1- 羰基) 三十四氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -29- 基) 乙基) -2- (三氟甲基) 苄腈,

[2634] (2073) (3S,9S,18S,21S,25S,28S,34S) -3- [2- (3- 叔丁氧基-4,5- 二氯- 苯基) 乙基] -9- (环己基甲基) -28- 异丙基-7,10,13,16,21,22,26,29- 八甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2635] (2074) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-29- (2- (2,2- 二氟苯并[d] [1,3] 二氧杂环戊烯-5- 基) 乙基) -11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i] [1,4,7,10,13,16,19,22,25,28,31] 十一氮杂环三十四碳十七烯-21,1'- 环戊烷] -4,7,10,13,17,20,23,28,31,34,37 (14H,22H) - 十一酮,

[2636] (2075) 2,3- 二氯-5- [2- [(3S,9S,18S,21S,25S,28S,34S) -28- 环己基-9- (环己基甲基) -7,10,13,16,21,22,26,29- 八甲基-18- [(1S) -1- 甲基丙基] -2,5,8,11,14,17,20,23,27,30,33- 十一氧代-25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -3- 基] 乙基] 苄腈,

[2637] (2076) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8- ((S) -仲丁基) -35- (环己基甲基) -18- 环戊基-29- (4- (二氟甲氧基) -3- 氟苯乙基) -11- 异丁基-5,6,12,16,19,33,36- 七甲基-15- (哌啶-1- 羰基) 二十二氢-2H,4H- 螺[氮杂环丁二烯并[2,1-u] 吡咯并[2,1-i]

[1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2638] (2077) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(喹啉-7-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2639] (2078) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)-29-(2-(6-(三氟甲基)吡啶-3-基)乙基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2640] (2079) (3S,9S,18S,21S,25S,28S,34S) -9-(环己基甲基)-3-[2-(3,4-二氯-5-异丙氧基-苯基)乙基]-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2641] (2080) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-29-(3-甲氧基-4-(三氟甲基)苯乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2642] (2081) (3S,9S,18S,21S,25S,28S,34S) -28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯-5-甲氧基-苯基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2643] (2082) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(3-叔丁氧基-4,5-二氯-苯基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2644] (2083) (3S,9S,18S,21S,25S,28S,34S) -3-[2-(3-丁氧基-4,5-二氯-苯基)乙基]-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2645] (2084) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-11-异丁基-29-(2-(6-甲氧基吡啶-3-基)乙基)-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37 (14H,22H) -十一酮,

[2646] (2085) (5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基

甲基)-18-环戊基-29-(4-(二氟甲基)-3-氟苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮,

[2647] (2086) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-12-[2-(4-氯-2-氟-苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2648] (2087) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-(2,4,5-三氟苯基)乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2649] (2088) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2650] (2089) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-(2,4-二氟苯基)乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2651] (2090) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-(2,4,6-三氟苯基)乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2652] (2091) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-(2,3,4,5,6-五氟苯基)乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2653] (2092) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-12-[2-(2-氯-6-氟苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2654] (2093) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-12-[2-[3-氟-4-(三氟甲基)苯基]乙基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2655] (2094) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-12-[2-(5-氯-2-氟-苯基)乙基]-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,

14,17,20,23,26,29,32-十一酮,

[2656] (2095) (3S,6S,9S,12S,18S,27S,30S,34R)-6-苄基-18-[(4-氯苯基)甲基]-3,9-二异丁基-4,7,16,19,22,25,30,31,34-九甲基-27-[(1S)-1-甲基丙基]-12-[2-[3-(三氟甲基)苯基]乙基]-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2657] (2096) (3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-3-[2-[2-氟-4-(三氟甲基)苯基]乙基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2658] (2097) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-(2-氧代-2-吡咯烷-1-基-乙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2659] (2098) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[3-(3,3-二氟氮杂环丁烷-1-基)-3-氧代-丙基]-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2660] (2099) (3S,9S,12S,18S,27S,30S,34S)-34-(3,3-二氟哌啶-1-羰基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2661] (2100) 3-[(3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]-N,N-二甲基-丙酰胺,

[2662] (2101) (3S,9S,12S,18S,27S,30S,34S)-34-(4,4-二氟哌啶-1-羰基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2663] (2102) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[2-(氮杂环丁烷-1-基)-2-氧代-乙基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2664] (2103) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[3-(氮杂环丁烷-1-基)-3-氧代-丙基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)螺[1,4,7,

10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2665] (2104) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-氧代-3-吡咯烷-1-基-丙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2666] (2105) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-22-[2-氧代-2-(1-哌啶基)乙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2667] (2106) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(二甲基氨基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2668] (2107) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-22-(3-吗啉代-3-氧代-丙基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2669] (2108) 3-[(3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-22-基]-N,N-二甲基-丙酰胺,

[2670] (2109) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-22-(2-吗啉代-2-氧代-乙基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2671] (2110) 3-[(3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-22-丁基-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19-基]-N,N-二甲基-丙酰胺,

[2672] (2111) 3-[(3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-

[(1S) -1-甲基丙基] -13- (吗啉-4-羰基) -2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-22-基]-N-甲基-丙酰胺,

[2673] (2112) (3S,6S,9S,13S,16S,22S,25S,31S,34S) -25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S) -1-甲基丙基] -13- (吗啉-4-羰基) -22-[3-氧代-3-(1-哌啶基)丙基]螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2674] (2113) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2675] (2114) (6S,9S,13S,16S,22S,25S,31S,34S) -25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S) -1-甲基丙基] -22-(苯氧基甲基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2676] (2115) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2677] (2116) (3S,9S,18S,21S,25R,28S,34S,36R) -36-苄氧基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S) -1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2678] (2117) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2679] (2118) (3S,9S,18S,21S,25S,28S,34S,36R) -9-(环己基甲基)-36-乙氧基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2680] (2119) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2,2-二氟乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-

十一酮,

[2681] (2120) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-吡啶基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2682] (2121) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-吡啶基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2683] (2122) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2684] (2123) (3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2,2-二氟乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2685] (2124) (3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(3-噻吩基甲氧基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2686] (2125) (3S,9S,18S,21S,25S,28S,34S,36R) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-36-(间甲苯基甲氧基)-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2687] (2126) (3S,9S,18S,21S,25S,28S,34S,36S) -36-[(3-氯苯基)甲氧基]-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2688] (2127) (3S,9S,18S,21S,25S,28S,34S,36S) -9-(环己基甲基)-36-乙氧基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2689] (2128) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -36- [[4- (二氟甲氧基) 苯基] 甲氧基] -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2690] (2129) (3S,9S,18S,21S,25S,28S,34S,36S) -36- [(4- 氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2691] (2130) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) -36- (对甲苯基甲氧基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2692] (2131) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-36- [(3- 甲氧基苯基) 甲氧基] -7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2693] (2132) (3S,9S,18S,21S,25S,28S,34S,36S) -36- [(2- 氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2694] (2133) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(4- 氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2695] (2134) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(3- 氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2696] (2135) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -36- [[4- (二氟甲氧基) 苯基] 甲氧基] -3- [2- [3- 氟-4- (三氟甲基) 苯基] 乙基] -21,28- 二异丁基-7,10,13,16,22,26,29- 七甲基-18- [(1S) -1- 甲基丙基] -25- (哌啶-1- 羰基) 螺[1,4,7,10,13,16,19,22,26,29,32- 十一氮杂双环[32.3.0] 三十七烷-31,1'- 环戊烷] -2,5,8,11,14,17,20,23,27,30,33- 十一酮,

[2697] (2136) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-36- [(3-甲氧基苯基) 甲氧基] -7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2698] (2137) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (邻甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2699] (2138) (3S,9S,18S,21S,25S,28S,34S,36R) -36- [(2-氯苯基) 甲氧基] -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2700] (2139) (3S,9S,18S,21S,25S,28S,34S,36R) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (邻甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2701] (2140) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -25- (哌啶-1-羰基) -36- (对甲苯基甲氧基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2702] (2141) (3S,9S,18S,21S,25S,28S,34S,36S) -9- (环己基甲基) -3- [2- [3-氟-4- (三氟甲基) 苯基] 乙基] -21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18- [(1S) -1-甲基丙基] -36- (间甲苯基甲氧基) -25- (哌啶-1-羰基) 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮,

[2703] (2142) (3S,9S,12S,18S,27S,30S,34S) -9-丁基-18- [(4-氯苯基) 甲基] -12- [(3-乙炔基苯基) 甲基] -3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -34- (哌啶-1-羰基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2704] (2143) (11S,17S,26S,29S,33R,36S) -11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -36-环丁基-17- (环己基甲基) -15,18,21,24,29,30,33,34,37-九甲基-26- [(1S) -1-甲基丙基] -9-苯基-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2705] (2144) (3S,6S,9S,13S,16S,25S,31S,34S) -25- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -16,31-二 (环丁基) -3,4,9,10,14,17,19,19,20,29,32-十一甲基-6- [(1S) -1-甲基丙基] -23-苯基-13- (哌啶-1-羰基) -1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2706] (2145) (3S,12S,18S,27S,30S,34R) -12- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -3-

环丁基-18-(环己基甲基)-1,4,6,6,7,16,19,22,25,30,31,34-十二甲基-27-[(1S)-1-甲基丙基]-10-苯基-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2707] (2146) (3S,6S,9S,13S,16S,25S,31S,34S)-23-(3-氯苯基)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,31-二(环丁基)-3,4,9,10,14,17,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2708] (2147) (3S,6S,9S,13S,16S,25S,31S,34S)-23-(4-氯苯基)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,31-二(环丁基)-3,4,9,10,14,17,19,19,20,29,32-十一甲基-6-[(1S)-1-甲基丙基]-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2709] (2148) (3S,6S,9S,13R,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-16,31-二(环丁基)-3,4,9,10,13,14,17,19,19,20,29,32-十二甲基-6-[(1S)-1-甲基丙基]-23-苯基-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮,

[2710] (2149) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环丁基-17-(环己基甲基)-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-9-(3-噻吩基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2711] (2150) (3S,12S,18S,27S,30S,34S)-12-[2-[3-氯-4-(三氟甲基)苯基]乙基]-3-环丁基-18-(环己基甲基)-1,4,6,6,7,16,19,22,25,30,31-十一甲基-27-[(1S)-1-甲基丙基]-10-苯基-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮,

[2712] (2151) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环丁基-17-(环己基甲基)-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-9-苯基-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2713] (2152) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-(环丁基甲基)-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[2714] (2153) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,18-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮,

[2715] (2154) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-乙基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,

22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2716] (2155) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环己基-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2717] (2156) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-环戊基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2718] (2157) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-18-环丁基-35-(环己基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2719] (2158) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-(环戊基甲基)-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2720] (2159) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,11-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,15,16,19,21,21,22,33,36-十一甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2721] (2160) (5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8-((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丁基-5,6,11,12,15,16,19,21,21,22,33,36-十二甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37 (14H)-十一酮,

[2722] (2161) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2723] (2162) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吡咯烷-1-羰基)-6,9,12,15,18,21,24,27,30,

34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,
[2724] (2163) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-乙基-N,N,3,4,9,10,14,17,29,32-十甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2725] (2164) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-N,N,15,18,21,24,29,30,34,37-十甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-33-甲酰胺,

[2726] (2165) (3S,6S,9S,13S,16S,22S,25S,31S,34S)-22-[(2-氯苯基)甲基]-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-乙基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2727] (2166) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-17-(对甲苯基甲基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2728] (2167) (8S,11S,17S,26S,29S,33S,36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(吗啉-4-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2729] (2168) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-(2-甲氧基乙基)-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2730] (2169) 5-[[(8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]甲基]吡啶-2-甲腈,

[2731] (2170) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-8-[(3-氟-4-羟基-苯基)甲基]-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2732] (2171) (8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-8-[(4-甲氧基苯基)甲基]-9,15,18,21,24,

30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2733] (2172) (3S,9S,18S,24R,27S,33S)-18-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-27-环戊基-N,N,7,10,13,16,25,28-八甲基-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺,

[2734] (2173) (3S,9S,18S,24R,27S,33S)-18,27-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,25,28-八甲基-9-[(4-甲基苯基)甲基]-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺,

[2735] (2174) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-32-环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代-9-(丙氧基甲基)螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

[2736] (2175) (3S,9S,18S,21S,27R,30S,36S)-18-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-30-环戊基-N,N,7,10,13,16,22,28,31-九甲基-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺,

[2737] (2176) (3S,9S,12S,17S,20S,23S,29R,32S,38S,40R)-20-[(2S)-丁烷-2-基]-9-(环己基甲基)-32-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-40-乙氧基-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

[2738] (2177) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-32-环戊基-N,N,7,10,17,18,24,30,33-九甲基-9-[(4-甲基苯基)甲基]-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

[2739] (2178) (3S,9S,18S,21S,27R,30S,36S)-18,30-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,22,28,31-九甲基-9-[(4-甲基苯基)甲基]-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺,

[2740] (2179) (3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-9,32-二环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺,

[2741] (2180) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-9-[2-(4-甲基

哌嗪-1-基)乙基]-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2742] (2181) (3S,6S,9S,13S,16S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-[2-(二甲基氨基)乙氧基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2743] (2182) (3S,6S,9S,13S,16S,25S,31S,34S)-23-[2-(氮杂环丁烷-3-基)乙基]-31-(环己基甲基)-16-环戊基-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2744] (2183) (3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-23-[2-[2-(甲基氨基)乙氧基]乙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺,

[2745] (2184) (11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-哌嗪-1-基乙基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,

[2746] (2185) (11S,17S,26S,29S,33S,36S)-9-[2-(2-氨基乙氧基)乙基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮,以及

[2747] (2186) (11S,17S,26S,29S,33S,36S)-9-(4-氨基丁基)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮。

[2748] 本发明还涉及用于制备本发明的环状肽化合物的非天然氨基酸。在一个方式中,本发明的非天然氨基酸是在采用了固相合成法的肽化合物的制备中使用的、N-保护非天然氨基酸,并且在另一个方式中,本发明的非天然氨基酸是具有从N-保护非天然氨基酸中除去保护基而获得的游离氨基的非天然氨基酸。作为N-保护非天然氨基酸的保护基,可以举出例如Fmoc基、Boc基、Cbz基、Alloc基、邻硝基苯磺酰基(nosyl)、2,4-二硝基苯磺酰基、t-Bu基、三苯甲基、苄基等。其中,优选Fmoc基、Boc基、Cbz基、Alloc基,更优选Fmoc基。

[2749] 在本发明中,作为具有Fmoc基作为保护基的N-保护非天然氨基酸,具体而言可以举出例如以下氨基酸。

[2750] (001_aa053) 3-二羟硼基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2751] (002_aa134) 4-[3,5-二氟-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)

丁酸,

[2752] (003_aa133) 2-(9H-芴-9-基甲氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸,

[2753] (004_aa132) 4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸,

[2754] (005_aa049) 2-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(五氟- λ^6 -硫烷基)苯基]丁酸,

[2755] (006_aa154) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-碘苯基)丙酸,

[2756] (007_aa151) 3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,

[2757] (008_aa128) 3-(5-溴-2-甲基-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2758] (009_aa127) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(5-碘-2-甲基-苯基)丙酸,

[2759] (010_aa126) 3-(2-溴-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2760] (011_aa122) 3-(2-氯-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2761] (012_aa121) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-5-碘-苯基)丙酸,

[2762] (013_aa120) 3-(3,5-二氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2763] (014_aa118) 3-(2,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2764] (015_aa116) 3-(2,6-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2765] (016_aa114) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-[4-(三氟甲基)苯基]丙酸,

[2766] (017_aa113) 2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-(对甲苯基)丙酸,

[2767] (018_aa110) 3-(4-氯苯基)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸,

[2768] (019_aa106) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-氟-5-碘-苯基)丙酸,

[2769] (020_aa105) 2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-3-碘-苯基)丙酸,

[2770] (021_aa104) 3-(3-氯-5-碘-苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2771] (022_aa097) 3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,

[2772] (023_aa096) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸,

[2773] (024_aa095) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸,

[2774] (025_aa094) 3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,

[2775] (026_aa090) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸,

[2776] (027_aa087) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸,

[2777] (028_aa086) 3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸,

[2778] (029_aa085) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(对甲苯基)丙酸,

[2779] (030_aa082) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-氟苯基)丙酸,

[2780] (031_aa081) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲氧基)苯基]丙酸,

[2781] (032_aa080) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-氟苯基)丙酸,

[2782] (033_aa077) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(邻甲苯基)丙酸,

- [2783] (034_aa074) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲氧基)苯基]丙酸,
- [2784] (035_aa073) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲基)苯基]丙酸,
- [2785] (036_aa067) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸,
- [2786] (037_aa066) 3-[4-(二氟甲基)苯基]-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2787] (038_aa064) 3-(2-氰基苯基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2788] (039_aa063) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸,
- [2789] (040_aa061) 3-(4-氰基苯基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2790] (041_aa060) 3-(3-氰基苯基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2791] (042_aa108) 3-(9H-苻-9-基甲氧基羰基氨基)-4-异戊氧基丁酸,
- [2792] (043_aa107) 4-[2-(叔丁基氨基)-2-氧代-乙氧基]-3-(9H-苻-9-基甲氧基羰基氨基)丁酸,
- [2793] (044_aa119) 2-(9H-苻-9-基甲氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸,
- [2794] (045_aa098) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸,
- [2795] (046_aa088) 1-[9H-苻-9-基甲氧基羰基(甲基)氨基]环戊烷甲酸,
- [2796] (047_aa102) 1-(9H-苻-9-基甲氧基羰基)-4-羟基-吡咯烷-2-甲酸,
- [2797] (048_aa101) 1-(9H-苻-9-基甲氧基羰基)-4-羟基-吡咯烷-2-甲酸,
- [2798] (049_aa149) 3-(9H-苻-9-基甲氧基羰基氨基)-4-氧代-4-(1-哌啶基)丁酸,
- [2799] (050_aa052) 3-[9H-苻-9-基甲氧基羰基(丙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [2800] (051_aa033-b) 4-烯丙氧基-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
- [2801] (052_aa032) 3-[乙基(9H-苻-9-基甲氧基羰基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [2802] (053_aa031) 3-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基-丁酸,
- [2803] (054_aa030) 3-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-噁唑烷-3-基-4-氧代丁酸,
- [2804] (055_aa029) 3-(9H-苻-9-基甲氧基羰基氨基)-4-噁唑烷-3-基-4-氧代丁酸,
- [2805] (056_aa028) 3-(((9H-苻-9-基)甲氧基)羰基(甲基)氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
- [2806] (057_aa027) 3-(9H-苻-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
- [2807] (058_aa026) 3-(9H-苻-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [2808] (059_aa025) 3-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟-1-

哌啶基)-4-氧代丁酸,

[2809] (060_aa024) 4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,

[2810] (061_aa023) 3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基-1-哌啶基)-4-氧代丁酸,

[2811] (062_aa022) 3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉代-4-氧代丁酸,

[2812] (063_aa021) 4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,

[2813] (064_aa020) 4-(4-叔丁基-1-哌啶基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,

[2814] (065_aa019) 4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,

[2815] (066_aa018) 3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸,

[2816] (067_aa017) 3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,

[2817] (068_aa016) 3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,

[2818] (069_aa015) 4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,

[2819] (070_aa014) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基-1-哌啶基)-4-氧代丁酸,

[2820] (071_aa013) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸,

[2821] (072_aa012) 4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,

[2822] (073_aa011) 4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,

[2823] (074_aa010) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,

[2824] (075_aa009) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,

[2825] (076_aa008) 4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,

[2826] (077_aa007) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉代-4-氧代丁酸,

[2827] (078_aa006) 3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(1-哌啶基)丁酸,

[2828] (079_aa040) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-吡啶基)丁酸,

[2829] (080_aa039) 2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-吡啶基)丁酸,

[2830] (081_aa125) 3-(5-溴-2-噻吩基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

[2831] (082_aa124) 3-(5-氯-2-噻吩基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸,

- [2832] (083_aa068) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(3-吡啶基)丙酸,
- [2833] (084_aa065) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(4-吡啶基)丙酸,
- [2834] (085_aa038) 3-(5-溴-3-吡啶基)-2-(9H-苻-9-基甲氧基羰基氨基)丙酸,
- [2835] (086_aa037) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(6-甲基-3-吡啶基)丙酸,
- [2836] (087_aa036) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(6-甲氧基-3-吡啶基)丙酸,
- [2837] (088_aa035) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(5-甲基-3-吡啶基)丙酸,
- [2838] (089_aa034) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(5-甲氧基-3-吡啶基)丙酸,
- [2839] (090_aa033) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-[6-(三氟甲基)-3-吡啶基]丙酸,
- [2840] (091_aa153) 4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
- [2841] (092_aa152) 4-(4,4-二氟-1-哌啶基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸,
- [2842] (093_aa092) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-甲基磺酰基丁酸,
- [2843] (094_aa047) 4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丁酸,
- [2844] (095_aa093) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丁酸,
- [2845] (096_aa078) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4-甲氧基丁酸,
- [2846] (097_aa069) 3-(环丙氧基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2847] (098_aa062) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丙酸,
- [2848] (099_aa055) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-异戊氧基丙酸,
- [2849] (100_aa054) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-羟基丙酸,
- [2850] (101_aa045) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸,
- [2851] (102_aa044) 2-(9H-苻-9-基甲氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸,
- [2852] (103_aa043) 3-(环丁氧基)-2-(9H-苻-9-基甲氧基羰基氨基)丙酸,
- [2853] (104_aa042) 3-(环丁氧基)-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2854] (105_aa041) 3-(环丙氧基)-2-(9H-苻-9-基甲氧基羰基氨基)丙酸,
- [2855] (106_aa150) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-5,5-二氟戊酸,
- [2856] (107_aa091) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]-4,4,4-三氟丁酸,
- [2857] (108_aa089) 2-环丙基-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]乙酸,
- [2858] (109_aa079) 2-环戊基-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]乙酸,
- [2859] (110_aa075) 2-环丁基-2-[9H-苻-9-基甲氧基羰基(甲基)氨基]乙酸,
- [2860] (111_aa083) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]戊-4-炔酸,
- [2861] (112_aa076) 2-[9H-苻-9-基甲氧基羰基(甲基)氨基]己-5-炔酸,

- [2862] (113_aa048) 2-[9H-苈-9-基甲氧基羰基(甲基)氨基]戊-4-烯酸,
- [2863] (114_aa141) 3-(9H-苈-9-基甲氧基羰基氨基)-5-甲基己酸,
- [2864] (115_aa131) 2-[9H-苈-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸,
- [2865] (116_aa130) 2-[9H-苈-9-基甲氧基羰基(甲基)氨基]辛酸,
- [2866] (117_aa112) 3-环己基-2-[乙基(9H-苈-9-基甲氧基羰基)氨基]丙酸,
- [2867] (118_aa111) 2-[乙基(9H-苈-9-基甲氧基羰基)氨基]-4-甲基戊酸,
- [2868] (119_aa109) 2-[乙基(9H-苈-9-基甲氧基羰基)氨基]丙酸,
- [2869] (120_aa084) 2-[9H-苈-9-基甲氧基羰基(甲基)氨基]庚酸,
- [2870] (121_aa072) 3-环丁基-2-[9H-苈-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2871] (122_aa071) 3-环戊基-2-[9H-苈-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2872] (123_aa070) 3-环丙基-2-[9H-苈-9-基甲氧基羰基(甲基)氨基]丙酸,
- [2873] (124_aa051) 3-[9H-苈-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸,
- [2874] (125_aa050) 2-[9H-苈-9-基甲氧基羰基(丙基)氨基]丙酸,
- [2875] (126_aa004) 2-[9H-苈-9-基甲氧基羰基(异丙基)氨基]乙酸,
- [2876] (127_aa003) 2-[环丙基(9H-苈-9-基甲氧基羰基)氨基]乙酸,
- [2877] (128_aa002) 2-[2-(4,4-二氟-1-哌啶基)乙基-(9H-苈-9-基甲氧基羰基)氨基]乙酸,
- [2878] (129_aa001) 2-[3-(4,4-二氟-1-哌啶基)丙基-(9H-苈-9-基甲氧基羰基)氨基]乙酸,
- [2879] (130_aa155) 2-[3-(二甲基氨基)-2-[9H-苈-9-基甲氧基羰基(甲基)氨基]-3-氧代-丙基]硫烷基乙酸,
- [2880] (131_aa157) 2-[2-(氮杂环丁烷-3-基)乙基-(9H-苈-9-基甲氧基羰基)氨基]乙酸,
- [2881] (132_aa158) 2-[2-(2-氨基乙氧基)乙基-(9H-苈-9-基甲氧基羰基)氨基]乙酸,和
- [2882] (133_aa161) 2-[9H-苈-9-基甲氧基羰基-[2-[2-(甲基氨基)乙氧基]乙基]氨基]乙酸。
- [2883] 在本发明中,作为具有Cbz基作为保护基的N-保护非天然氨基酸,具体而言可以举出例如以下氨基酸。
- [2884] (z001) 2-(苄氧基羰基氨基)-3-二羟硼基-丙酸,
- [2885] (z002) 2-(苄氧基羰基氨基)-4-[3,5-二氟-4-(三氟甲基)苯基]丁酸,
- [2886] (z003) 2-(((苄氧基)羰基)氨基)-4-(3-氟-4-(三氟甲基)苯基)丁酸,
- [2887] (z004) 2-(((苄氧基)羰基)氨基)-4-(3-氯-4-(三氟甲基)苯基)丁酸,
- [2888] (z005) 2-(苄氧基羰基氨基)-4-[4-(五氟- λ 6-硫烷基)苯基]丁酸,
- [2889] (z006) 2-[苄氧基羰基(甲基)氨基]-3-(3-碘苯基)丙酸,
- [2890] (z007) 2-[苄氧基羰基(甲基)氨基]-3-(3,4-二氟苯基)丙酸,
- [2891] (z008) 2-(((苄氧基)羰基)氨基)-3-(5-溴-2-甲基苯基)丙酸,
- [2892] (z009) 2-(苄氧基羰基氨基)-3-(5-碘-2-甲基-苯基)丙酸,
- [2893] (z010) 2-(((苄氧基)羰基)氨基)-3-(2-溴-5-碘苯基)丙酸,
- [2894] (z011) 2-(((苄氧基)羰基)氨基)-3-(2-氯-5-碘苯基)丙酸,

- [2895] (z012) 2-(((苄氧基)羰基)氨基)-3-(2-氟-5-碘苯基)丙酸,
[2896] (z013) 2-(((苄氧基)羰基)氨基)-3-(3,5-二氯苯基)丙酸,
[2897] (z014) 2-(((苄氧基)羰基)氨基)-3-(2,5-二氟苯基)丙酸,
[2898] (z015) 2-(((苄氧基)羰基)氨基)-3-(2,6-二氟苯基)丙酸,
[2899] (z016) 2-[苄氧基羰基(乙基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
[2900] (z017) 2-[苄氧基羰基(乙基)氨基]-3-(对甲苯基)丙酸,
[2901] (z018) 2-[苄氧基羰基(乙基)氨基]-3-(4-氯苯基)丙酸,
[2902] (z019) 2-(((苄氧基)羰基)氨基)-3-(3-氟-5-碘苯基)丙酸,
[2903] (z020) 2-(苄氧基羰基氨基)-3-(2-氟-3-碘-苯基)丙酸,
[2904] (z021) 2-(苄氧基羰基氨基)-3-(3-氯-5-碘-苯基)丙酸,
[2905] (z022) 2-[苄氧基羰基(甲基)氨基]-3-(3-溴苯基)丙酸,
[2906] (z023) 2-[苄氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸,
[2907] (z024) 2-[苄氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸,
[2908] (z025) 2-[苄氧基羰基(甲基)氨基]-3-(2-氯苯基)丙酸,
[2909] (z026) 2-[苄氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
[2910] (z027) 2-[苄氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸,
[2911] (z028) 2-[苄氧基羰基(甲基)氨基]-3-(4-溴苯基)丙酸,
[2912] (z029) 2-[苄氧基羰基(甲基)氨基]-3-(对甲苯基)丙酸,
[2913] (z030) 2-[苄氧基羰基(甲基)氨基]-3-(4-氟苯基)丙酸,
[2914] (z031) 2-[苄氧基羰基(甲基)氨基]-3-[4-(三氟甲氧基)苯基]丙酸,
[2915] (z032) 2-[苄氧基羰基(甲基)氨基]-3-(3-氟苯基)丙酸,
[2916] (z033) 2-[苄氧基羰基(甲基)氨基]-3-(邻甲苯基)丙酸,
[2917] (z034) 2-[苄氧基羰基(甲基)氨基]-3-[2-(三氟甲氧基)苯基]丙酸,
[2918] (z035) 2-[苄氧基羰基(甲基)氨基]-3-[3-(三氟甲基)苯基]丙酸,
[2919] (z036) 2-[苄氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸,
[2920] (z037) 2-[苄氧基羰基(甲基)氨基]-3-[4-(二氟甲基)苯基]丙酸,
[2921] (z038) 2-[苄氧基羰基(甲基)氨基]-3-(2-氰基苯基)丙酸,
[2922] (z039) 2-[苄氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸,
[2923] (z040) 2-[苄氧基羰基(甲基)氨基]-3-(4-氰基苯基)丙酸,
[2924] (z041) 2-[苄氧基羰基(甲基)氨基]-3-(3-氰基苯基)丙酸,
[2925] (z042) 3-(苄氧基羰基氨基)-4-异戊氧基-丁酸,
[2926] (z043) 3-(苄氧基羰基氨基)-4-[2-(叔丁基氨基)-2-氧代-乙氧基]丁酸,
[2927] (z044) 2-(((苄氧基)羰基)氨基)-3-(3-碘苯基)-2-甲基丙酸,
[2928] (z045) 2-(((苄氧基)羰基)(甲基)氨基)-2-甲基-3-苯基丙酸,
[2929] (z046) 1-[苄氧基羰基(甲基)氨基]环戊烷甲酸,
[2930] (z047) 1-((苄氧基)羰基)-4-羟基吡咯烷-2-甲酸,
[2931] (z048) 1-((苄氧基)羰基)-4-羟基吡咯烷-2-甲酸,
[2932] (z049) 3-(((苄氧基)羰基)氨基)-4-氧代-4-(哌啶-1-基)丁酸,
[2933] (z050) 3-[苄氧基羰基(丙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,

- [2934] (z051) 4-烯丙氧基-2-[苄氧基羰基(甲基)氨基]-4-氧代丁酸,
- [2935] (z052) 3-[苄氧基羰基(乙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [2936] (z053) 3-[苄氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基-丁酸,
- [2937] (z054) 3-[苄氧基羰基(甲基)氨基]-4-噁唑烷-3-基-4-氧代丁酸,
- [2938] (z055) 3-(苄氧基羰基氨基)-4-噁唑烷-3-基-4-氧代丁酸,
- [2939] (z056) 3-[苄氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
- [2940] (z057) 3-(((苄氧基)羰基)氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
- [2941] (z058) 3-(苄氧基羰基氨基)-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [2942] (z059) 3-[苄氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [2943] (z060) 3-(((苄氧基)羰基)氨基)-4-(3,3-二甲基吡咯烷-1-基)-4-氧代丁酸,
- [2944] (z061) 3-(((苄氧基)羰基)氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸,
- [2945] (z062) 3-(((苄氧基)羰基)氨基)-4-吗啉代-4-氧代丁酸,
- [2946] (z063) 3-(((苄氧基)羰基)氨基)-4-(1,1-二氧硫代吗啉代)-4-氧代丁酸,
- [2947] (z064) 3-(((苄氧基)羰基)氨基)-4-(4-(叔丁基)哌啶-1-基)-4-氧代丁酸,
- [2948] (z065) 3-(((苄氧基)羰基)氨基)-4-氧代-4-(吡咯烷-1-基)丁酸,
- [2949] (z066) 3-(((苄氧基)羰基)氨基)-4-氧代-4-(吡咯烷-1-基)丁酸,
- [2950] (z067) 3-(苄氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
- [2951] (z068) 3-(苄氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
- [2952] (z069) 3-[苄氧基羰基(甲基)氨基]-4-(1,1-二氧代-1,4-噻嗪烷-4-基)-4-氧代丁酸,
- [2953] (z070) 3-[苄氧基羰基(甲基)氨基]-4-(4-甲基-1-哌啶基)-4-氧代丁酸,
- [2954] (z071) 3-[苄氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基-丁酸,
- [2955] (z072) 4-(氮杂环丁烷-1-基)-3-[苄氧基羰基(甲基)氨基]-4-氧代丁酸,
- [2956] (z073) 3-[苄氧基羰基(甲基)氨基]-4-(二甲基氨基)-4-氧代丁酸,
- [2957] (z074) 3-[苄氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
- [2958] (z075) 3-[苄氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
- [2959] (z076) 3-[苄氧基羰基(甲基)氨基]-4-(3,3-二甲基吡咯烷-1-基)-4-氧代丁酸,
- [2960] (z077) 3-[苄氧基羰基(甲基)氨基]-4-吗啉代-4-氧代丁酸,
- [2961] (z078) 3-(((苄氧基)羰基)(甲基)氨基)-4-氧代-4-(哌啶-1-基)丁酸,
- [2962] (z079) 2-[苄氧基羰基(甲基)氨基]-4-(4-吡啶基)丁酸,
- [2963] (z080) 2-[苄氧基羰基(甲基)氨基]-4-(3-吡啶基)丁酸,
- [2964] (z081) 2-(((苄氧基)羰基)氨基)-3-(5-溴噻吩-2-基)丙酸,
- [2965] (z082) 2-(((苄氧基)羰基)氨基)-3-(5-氯噻吩-2-基)丙酸,
- [2966] (z083) 2-[苄氧基羰基(甲基)氨基]-3-(3-吡啶基)丙酸,

- [2967] (z084) 2-[苄氧基羰基(甲基)氨基]-3-(4-吡啶基)丙酸,
- [2968] (z085) 2-(((苄氧基)羰基)氨基)-3-(5-溴吡啶-3-基)丙酸,
- [2969] (z086) 2-[苄氧基羰基(甲基)氨基]-3-(6-甲基-3-吡啶基)丙酸,
- [2970] (z087) 2-[苄氧基羰基(甲基)氨基]-3-(6-甲氧基-3-吡啶基)丙酸,
- [2971] (z088) 2-[苄氧基羰基(甲基)氨基]-3-(5-甲基-3-吡啶基)丙酸,
- [2972] (z089) 2-[苄氧基羰基(甲基)氨基]-3-(5-甲氧基-3-吡啶基)丙酸,
- [2973] (z090) 2-[苄氧基羰基(甲基)氨基]-3-[6-(三氟甲基)-3-吡啶基]丙酸,
- [2974] (z091) 2-[苄氧基羰基(甲基)氨基]-4-(3,3-二氟氮杂环丁烷-1-基)-4-氧代丁酸,
- [2975] (z092) 2-[苄氧基羰基(甲基)氨基]-4-(4,4-二氟-1-哌啶基)-4-氧代丁酸,
- [2976] (z093) 2-[苄氧基羰基(甲基)氨基]-4-甲基磺酰基-丁酸,
- [2977] (z094) 2-[苄氧基羰基(甲基)氨基]-4-(3,3-二氟氮杂环丁烷-1-基)丁酸,
- [2978] (z095) (2S,3R)-2-[苄氧基羰基(甲基)氨基]-3-甲氧基丁酸,
- [2979] (z096) 2-[苄氧基羰基(甲基)氨基]-4-甲氧基丁酸,
- [2980] (z097) 2-[苄氧基羰基(甲基)氨基]-3-(环丙氧基)丙酸,
- [2981] (z098) 2-[苄氧基羰基(甲基)氨基]-3-甲氧基丙酸,
- [2982] (z099) 2-[苄氧基羰基(甲基)氨基]-3-异戊氧基丙酸,
- [2983] (z100) 2-[苄氧基羰基(甲基)氨基]-3-羟基丙酸,
- [2984] (z101) 2-[苄氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸,
- [2985] (z102) 2-(苄氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸,
- [2986] (z103) 2-(苄氧基羰基氨基)-3-(环丁氧基)丙酸,
- [2987] (z104) 2-[苄氧基羰基(甲基)氨基]-3-(环丁氧基)丙酸,
- [2988] (z105) 2-(苄氧基羰基氨基)-3-(环丙氧基)丙酸,
- [2989] (z106) 2-[苄氧基羰基(甲基)氨基]-5,5-二氟戊酸,
- [2990] (z107) 2-[苄氧基羰基(甲基)氨基]-4,4,4-三氟丁酸,
- [2991] (z108) 2-[苄氧基羰基(甲基)氨基]-2-环丙基乙酸,
- [2992] (z109) 2-[苄氧基羰基(甲基)氨基]-2-环戊基乙酸,
- [2993] (z110) 2-[苄氧基羰基(甲基)氨基]-2-环丁基乙酸,
- [2994] (z111) 2-[苄氧基羰基(甲基)氨基]戊-4-炔酸,
- [2995] (z112) 2-[苄氧基羰基(甲基)氨基]己-5-炔酸,
- [2996] (z113) 2-[苄氧基羰基(甲基)氨基]戊-4-烯酸,
- [2997] (z114) 3-(((苄氧基)羰基)氨基)-5-甲基己酸,
- [2998] (z115) 2-(((苄氧基)羰基)(甲基)氨基)-5-甲基己酸,
- [2999] (z116) 2-(((苄氧基)羰基)(甲基)氨基)辛酸,
- [3000] (z117) 2-[苄氧基羰基(乙基)氨基]-3-环己基-丙酸,
- [3001] (z118) 2-[苄氧基羰基(乙基)氨基]-4-甲基-戊酸,
- [3002] (z119) N-((苄氧基)羰基)-N-乙基-丙氨酸,
- [3003] (z120) 2-[苄氧基羰基(甲基)氨基]庚酸,
- [3004] (z121) 2-[苄氧基羰基(甲基)氨基]-3-环丁基-丙酸,

- [3005] (z122) 2-[苄氧基羰基(甲基)氨基]-3-环戊基-丙酸,
[3006] (z123) 2-[苄氧基羰基(甲基)氨基]-3-环丙基-丙酸,
[3007] (z124) 3-(((苄氧基)羰基)(甲基)氨基)-5-甲基己酸,
[3008] (z125) 2-[苄氧基羰基(丙基)氨基]丙酸,
[3009] (z126) N-((苄氧基)羰基)-N-异丙基甘氨酸,
[3010] (z127) N-((苄氧基)羰基)-N-环丙基甘氨酸,
[3011] (z128) 2-[苄氧基羰基-[2-(4,4-二氟-1-哌啶基)乙基]氨基]乙酸,
[3012] (z129) 2-[苄氧基羰基-[3-(4,4-二氟-1-哌啶基)丙基]氨基]乙酸,
[3013] (z130) 2-[2-[苄氧基羰基(甲基)氨基]-3-(二甲基氨基)-3-氧代-丙基]硫烷基乙酸,
[3014] (z131) 2-[2-(氮杂环丁烷-3-基)乙基-苄氧基羰基-氨基]乙酸,
[3015] (z132) 2-[2-(2-氨基乙氧基)乙基-苄氧基羰基-氨基]乙酸,和
[3016] (z133) 2-[苄氧基羰基-[2-[2-(甲基氨基)乙氧基]乙基]氨基]乙酸。
[3017] 在本发明中,作为具有Boc基作为保护基的N-保护非天然氨基酸,具体而言可以举出例如以下氨基酸。
[3018] (b001) 3-二羟硼基-2-(叔丁氧基羰基氨基)丙酸,
[3019] (b002) 2-(叔丁氧基羰基氨基)-4-[3,5-二氟-4-(三氟甲基)苯基]丁酸,
[3020] (b003) 2-(叔丁氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸,
[3021] (b004) 2-(叔丁氧基羰基氨基)-4-[3-氯-4-(三氟甲基)苯基]丁酸,
[3022] (b005) 2-(叔丁氧基羰基氨基)-4-[4-(五氟- λ^6 -硫烷基)苯基]丁酸,
[3023] (b006) 2-[叔丁氧基羰基(甲基)氨基]-3-(3-碘苯基)丙酸,
[3024] (b007) 2-[叔丁氧基羰基(甲基)氨基]-3-(3,4-二氟苯基)丙酸,
[3025] (b008) 2-(叔丁氧基羰基氨基)-3-(5-溴-2-甲基-苯基)丙酸,
[3026] (b009) 2-(叔丁氧基羰基氨基)-3-(5-碘-2-甲基-苯基)丙酸,
[3027] (b010) 2-(叔丁氧基羰基氨基)-3-(2-溴-5-碘-苯基)丙酸,
[3028] (b011) 2-(叔丁氧基羰基氨基)-3-(2-氯-5-碘-苯基)丙酸,
[3029] (b012) 2-(叔丁氧基羰基氨基)-3-(2-氟-5-碘-苯基)丙酸,
[3030] (b013) 2-(叔丁氧基羰基氨基)-3-(3,5-二氯苯基)丙酸,
[3031] (b014) 2-(叔丁氧基羰基氨基)-3-(2,5-二氟苯基)丙酸,
[3032] (b015) 2-(叔丁氧基羰基氨基)-3-(2,6-二氟苯基)丙酸,
[3033] (b016) 2-[叔丁氧基羰基(乙基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
[3034] (b017) 2-[叔丁氧基羰基(乙基)氨基]-3-(对甲苯基)丙酸,
[3035] (b018) 2-[叔丁氧基羰基(乙基)氨基]-3-(4-氯苯基)丙酸,
[3036] (b019) 2-(叔丁氧基羰基氨基)-3-(3-氟-5-碘-苯基)丙酸,
[3037] (b020) 2-(叔丁氧基羰基氨基)-3-(2-氟-3-碘-苯基)丙酸,
[3038] (b021) 2-(叔丁氧基羰基氨基)-3-(3-氯-5-碘-苯基)丙酸,
[3039] (b022) 3-(3-溴苯基)-2-[叔丁氧基羰基(甲基)氨基]丙酸,
[3040] (b023) 2-[叔丁氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸,
[3041] (b024) 2-[叔丁氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸,

- [3042] (b025) 2-[叔丁氧基羰基(甲基)氨基]-3-(2-氯苯基)丙酸,
- [3043] (b026) 2-[叔丁氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸,
- [3044] (b027) 2-[叔丁氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸,
- [3045] (b028) 3-(4-溴苯基)-2-[叔丁氧基羰基(甲基)氨基]丙酸,
- [3046] (b029) 2-[叔丁氧基羰基(甲基)氨基]-3-(对甲苯基)丙酸,
- [3047] (b030) 2-[叔丁氧基羰基(甲基)氨基]-3-(4-氟苯基)丙酸,
- [3048] (b031) 2-[叔丁氧基羰基(甲基)氨基]-3-[4-(三氟甲氧基)苯基]丙酸,
- [3049] (b032) 2-[叔丁氧基羰基(甲基)氨基]-3-(3-氟苯基)丙酸,
- [3050] (b033) 2-[叔丁氧基羰基(甲基)氨基]-3-(邻甲苯基)丙酸,
- [3051] (b034) 2-[叔丁氧基羰基(甲基)氨基]-3-[2-(三氟甲氧基)苯基]丙酸,
- [3052] (b035) 2-[叔丁氧基羰基(甲基)氨基]-3-[3-(三氟甲基)苯基]丙酸,
- [3053] (b036) 2-[叔丁氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸,
- [3054] (b037) 2-[叔丁氧基羰基(甲基)氨基]-3-[4-(二氟甲基)苯基]丙酸,
- [3055] (b038) 2-[叔丁氧基羰基(甲基)氨基]-3-(2-氰基苯基)丙酸,
- [3056] (b039) 2-[叔丁氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸,
- [3057] (b040) 2-[叔丁氧基羰基(甲基)氨基]-3-(4-氰基苯基)丙酸,
- [3058] (b041) 2-[叔丁氧基羰基(甲基)氨基]-3-(3-氰基苯基)丙酸,
- [3059] (b042) 3-(叔丁氧基羰基氨基)-4-异戊氧基-丁酸,
- [3060] (b043) 3-(叔丁氧基羰基氨基)-4-[2-(叔丁基氨基)-2-氧代-乙氧基]丁酸,
- [3061] (b044) 2-(叔丁氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸,
- [3062] (b045) 2-[叔丁氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸,
- [3063] (b046) 1-[叔丁氧基羰基(甲基)氨基]环戊烷甲酸,
- [3064] (b047) 1-叔丁氧基羰基-4-羟基-吡咯烷-2-甲酸,
- [3065] (b048) 1-叔丁氧基羰基-4-羟基-吡咯烷-2-甲酸,
- [3066] (b049) 3-(叔丁氧基羰基氨基)-4-氧代-4-(1-哌啶基)丁酸,
- [3067] (b050) 3-[叔丁氧基羰基(丙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [3068] (b051) 4-烯丙氧基-2-[叔丁氧基羰基(甲基)氨基]-4-氧代丁酸,
- [3069] (b052) 3-[叔丁氧基羰基(乙基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [3070] (b053) 3-[叔丁氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸,
- [3071] (b054) 3-[叔丁氧基羰基(甲基)氨基]-4-噁唑烷-3-基-4-氧代丁酸,
- [3072] (b055) 3-(叔丁氧基羰基氨基)-4-噁唑烷-3-基-4-氧代丁酸,
- [3073] (b056) 3-[叔丁氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸,
- [3074] (b057) 3-(叔丁氧基羰基氨基)-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [3075] (b058) 3-(叔丁氧基羰基氨基)-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [3076] (b059) 3-[叔丁氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟-1-哌啶基)-4-氧代丁酸,
- [3077] (b060) 3-(叔丁氧基羰基氨基)-4-(3,3-二甲基吡咯烷-1-基)-4-氧代丁酸,
- [3078] (b061) 3-(叔丁氧基羰基氨基)-4-(4-甲基-1-哌啶基)-4-氧代丁酸,

- [3079] (b062) 3-(叔丁氧基羰基氨基)-4-吗啉代-4-氧代丁酸,
- [3080] (b063) 3-(叔丁氧基羰基氨基)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-4-氧代丁酸,
- [3081] (b064) 3-(叔丁氧基羰基氨基)-4-(4-叔丁基-1-哌啶基)-4-氧代丁酸,
- [3082] (b065) 3-(叔丁氧基羰基氨基)-4-(二甲基氨基)-4-氧代丁酸,
- [3083] (b066) 3-(叔丁氧基羰基氨基)-4-氧代-4-吡咯烷-1-基-丁酸,
- [3084] (b067) 3-(叔丁氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
- [3085] (b068) 3-(叔丁氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
- [3086] (b069) 3-[叔丁氧基羰基(甲基)氨基]-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-4-氧代丁酸,
- [3087] (b070) 3-[叔丁氧基羰基(甲基)氨基]-4-(4-甲基-1-哌啶基)-4-氧代丁酸,
- [3088] (b071) 3-[叔丁氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基-丁酸,
- [3089] (b072) 4-(氮杂环丁烷-1-基)-3-[叔丁氧基羰基(甲基)氨基]-4-氧代丁酸,
- [3090] (b073) 3-[叔丁氧基羰基(甲基)氨基]-4-(二甲基氨基)-4-氧代丁酸,
- [3091] (b074) 3-[叔丁氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸,
- [3092] (b075) 3-[叔丁氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸,
- [3093] (b076) 3-[叔丁氧基羰基(甲基)氨基]-4-(3,3-二甲基吡咯烷-1-基)-4-氧代丁酸,
- [3094] (b077) 3-[叔丁氧基羰基(甲基)氨基]-4-吗啉代-4-氧代丁酸,
- [3095] (b078) 3-[叔丁氧基羰基(甲基)氨基]-4-氧代-4-(1-哌啶基)丁酸,
- [3096] (b079) 2-[叔丁氧基羰基(甲基)氨基]-4-(4-吡啶基)丁酸,
- [3097] (b080) 2-[叔丁氧基羰基(甲基)氨基]-4-(3-吡啶基)丁酸,
- [3098] (b081) 2-(叔丁氧基羰基氨基)-3-(5-溴-2-噻吩基)丙酸,
- [3099] (b082) 2-(叔丁氧基羰基氨基)-3-(5-氯-2-噻吩基)丙酸,
- [3100] (b083) 2-[叔丁氧基羰基(甲基)氨基]-3-(3-吡啶基)丙酸,
- [3101] (b084) 2-[叔丁氧基羰基(甲基)氨基]-3-(4-吡啶基)丙酸,
- [3102] (b085) 2-(叔丁氧基羰基氨基)-3-(5-溴-3-吡啶基)丙酸,
- [3103] (b086) 2-[叔丁氧基羰基(甲基)氨基]-3-(6-甲基-3-吡啶基)丙酸,
- [3104] (b087) 2-[叔丁氧基羰基(甲基)氨基]-3-(6-甲氧基-3-吡啶基)丙酸,
- [3105] (b088) 2-[叔丁氧基羰基(甲基)氨基]-3-(5-甲基-3-吡啶基)丙酸,
- [3106] (b089) 2-[叔丁氧基羰基(甲基)氨基]-3-(5-甲氧基-3-吡啶基)丙酸,
- [3107] (b090) 2-[叔丁氧基羰基(甲基)氨基]-3-[6-(三氟甲基)-3-吡啶基]丙酸,
- [3108] (b091) 2-[叔丁氧基羰基(甲基)氨基]-4-(3,3-二氟氮杂环丁烷-1-基)-4-氧代丁酸,
- [3109] (b092) 2-[叔丁氧基羰基(甲基)氨基]-4-(4,4-二氟-1-哌啶基)-4-氧代丁酸,
- [3110] (b093) 2-[叔丁氧基羰基(甲基)氨基]-4-甲基磺酰基-丁酸,

- [3111] (b094) 2-[叔丁氧基羰基(甲基)氨基]-4-(3,3-二氟氮杂环丁烷-1-基)丁酸,
- [3112] (b095) (2S,3R)-2-[叔丁氧基羰基(甲基)氨基]-3-甲氧基丁酸,
- [3113] (b096) 2-[叔丁氧基羰基(甲基)氨基]-4-甲氧基丁酸,
- [3114] (b097) 2-[叔丁氧基羰基(甲基)氨基]-3-(环丙氧基)丙酸,
- [3115] (b098) 2-[叔丁氧基羰基(甲基)氨基]-3-甲氧基丙酸,
- [3116] (b099) 2-[叔丁氧基羰基(甲基)氨基]-3-异戊氧基丙酸,
- [3117] (b100) 2-[叔丁氧基羰基(甲基)氨基]-3-羟基-丙酸,
- [3118] (b101) 2-[叔丁氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸,
- [3119] (b102) 2-(叔丁氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸,
- [3120] (b103) 2-(叔丁氧基羰基氨基)-3-(环丁氧基)丙酸,
- [3121] (b104) 2-[叔丁氧基羰基(甲基)氨基]-3-(环丁氧基)丙酸,
- [3122] (b105) 2-(叔丁氧基羰基氨基)-3-(环丙氧基)丙酸,
- [3123] (b106) 2-[叔丁氧基羰基(甲基)氨基]-5,5-二氟戊酸,
- [3124] (b107) 2-[叔丁氧基羰基(甲基)氨基]-4,4,4-三氟丁酸,
- [3125] (b108) 2-[叔丁氧基羰基(甲基)氨基]-2-环丙基乙酸,
- [3126] (b109) 2-[叔丁氧基羰基(甲基)氨基]-2-环戊基乙酸,
- [3127] (b110) 2-[叔丁氧基羰基(甲基)氨基]-2-环丁基乙酸,
- [3128] (b111) 2-[叔丁氧基羰基(甲基)氨基]戊-4-炔酸,
- [3129] (b112) 2-[叔丁氧基羰基(甲基)氨基]己-5-炔酸,
- [3130] (b113) 2-[叔丁氧基羰基(甲基)氨基]戊-4-烯酸,
- [3131] (b114) 3-(叔丁氧基羰基氨基)-5-甲基-己酸,
- [3132] (b115) 2-[叔丁氧基羰基(甲基)氨基]-5-甲基己酸,
- [3133] (b116) 2-[叔丁氧基羰基(甲基)氨基]辛酸,
- [3134] (b117) 2-[叔丁氧基羰基(乙基)氨基]-3-环己基丙酸,
- [3135] (b118) 2-[叔丁氧基羰基(乙基)氨基]-4-甲基戊酸,
- [3136] (b119) 2-[叔丁氧基羰基(乙基)氨基]丙酸,
- [3137] (b120) 2-[叔丁氧基羰基(甲基)氨基]庚酸,
- [3138] (b121) 2-[叔丁氧基羰基(甲基)氨基]-3-环丁基丙酸,
- [3139] (b122) 2-[叔丁氧基羰基(甲基)氨基]-3-环戊基丙酸,
- [3140] (b123) 2-[叔丁氧基羰基(甲基)氨基]-3-环丙基丙酸,
- [3141] (b124) 3-[叔丁氧基羰基(甲基)氨基]-5-甲基己酸,
- [3142] (b125) 2-[叔丁氧基羰基(丙基)氨基]丙酸,
- [3143] (b126) 2-[叔丁氧基羰基(异丙基)氨基]乙酸,
- [3144] (b127) 2-[叔丁氧基羰基(环丙基)氨基]乙酸,
- [3145] (b128) 2-[叔丁氧基羰基-[2-(4,4-二氟-1-哌啶基)乙基]氨基]乙酸,
- [3146] (b129) 2-[叔丁氧基羰基-[3-(4,4-二氟-1-哌啶基)丙基]氨基]乙酸,
- [3147] (b130) 2-[2-[叔丁氧基羰基(甲基)氨基]-3-(二甲基氨基)-3-氧代-丙基]硫烷基乙酸,
- [3148] (b131) 2-[2-(氮杂环丁烷-3-基)乙基-叔丁氧基羰基-氨基]乙酸,

[3149] (b132) 2-[2-(2-氨基乙氧基)乙基-叔丁氧基羰基-氨基]乙酸,和

[3150] (b133) 2-[叔丁氧基羰基-[2-[2-(甲基氨基)乙氧基]乙基]氨基]乙酸。

[3151] (一般制备法)

[3152] 对本发明的环状肽化合物以及用于制备该环状肽化合物的非天然氨基酸的一般的制备方法进行说明。

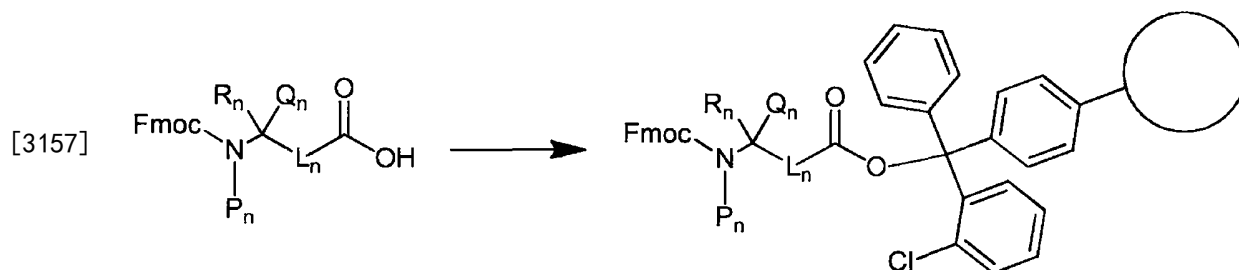
[3153] 肽化合物的化学合成方法

[3154] 作为本说明书的肽化合物或环状肽化合物的化学合成方法,可以列举液相合成法,使用Fmoc合成、Boc合成等的固相合成法,以及它们的组合等。在Fmoc合成中以如下这样的氨基酸作为基本单位,该氨基酸的主链氨基被Fmoc基团保护、并且根据需要侧链官能团被哌啶、t-Bu基、THP基、Trt基等在碱性下不被切断的保护基所保护、而主链羧酸不受保护。作为基本单元,只要是具有Fmoc保护的氨基和羧基的组合,则没有特别的限制,可以使用其他的。例如可以将二肽作为基本单位。配置于N末端的基本单元可以是除Fmoc氨基酸之外的单元。例如,可以是Boc氨基酸,也可以是不具有氨基的羧酸类似物。对于主链羧基或侧链具有羧基且主链羧基被恰当的保护基保护的氨基酸的侧链羧基而言,使之通过与固相载体的官能团的化学反应而担载于固相。接着,利用哌啶、DBU等碱使Fmoc基脱保护,使新生成的氨基与之后添加的具有基本单元的羧基的受保护的氨基酸发生缩合反应,由此生成肽键。在缩合反应中,作为羧基的活化剂,可以使用DIC和HOBt的组合、DIC和HOAt的组合、HATU和DIPEA的组合等各种组合。可以通过重复进行脱Fmoc基团和随后的肽键生成反应来生成所希望的肽序列。在获得所希望的序列后,进行从固相的切割和根据需要引入的侧链官能团的保护基的脱保护。另外,可以在进行从固相的切割之前进行肽的构象转换、环化。从固相的切割和脱保护可以在相同条件例如90:10的TFA/H₂O下进行,根据需要也可以在不同条件下进行脱保护。如果从固相的切割是能够使用1%TFA等弱酸来实现的切割,则利用Pd等作为保护基,能够利用两者的化学反应的正交性。在这些工序的期间或最后,还可以实施环化等工序。例如,可以使侧链羧酸与N末端主链的氨基缩合、使侧链氨基与C末端主链的羧酸缩合。此时,C末端侧的羧酸与被环化的侧链羧酸之间,或N末端侧的主链氨基或羟基与被环化的侧链氨基之间需要反应正交性。如上所述,考虑保护基的正交性来进行保护基的选择。将这样获得的反应产物利用反相柱、分子筛柱等进行纯化。关于这些的详细内容记载于例如Merck株式会社于2002年5月1日发行的固相合成手册等中。固相合成树脂可以使用市售的树脂,可列举CTC树脂、Wang树脂或SASRIN树脂。

[3155] 下面记载在利用肽合成仪进行的肽合成中使用的、担载有氨基酸的树脂的一般的合成方法。

[3156] 关于Fmoc氨基酸在树脂上的担载,可以利用W02013/100132或W02018/225864中记载的方法来进行。具体而言,例如在带有过滤器的反应容器中加入2-氯三苯甲基氯树脂和溶剂(例如,脱水二氯甲烷),使树脂溶胀。接着将该溶剂和树脂分离,然后将树脂、溶解于溶剂(例如,脱水二氯甲烷)中的C末端游离Fmoc氨基酸、溶剂(例如,脱水甲醇)以及碱(例如,二异丙基乙胺)的混合液添加到反应容器中并混合,使Fmoc氨基酸担载于树脂上。在将树脂和反应液分离后,将树脂混合至一种或多种溶剂和碱的混合液(例如,脱水二氯甲烷、脱水甲醇和二异丙基乙胺的混合液)中,从而洗涤树脂。根据需要用溶剂(例如,二氯甲烷)多次洗涤树脂后,分离树脂和反应液。使所得的树脂在减压下干燥过夜,由此可以获得担载有

Fmoc氨基酸的树脂。



[3158] (式中, n 表示1~11的整数, $P_1 \sim P_{11}$ 、 $Q_1 \sim Q_{11}$ 、 $R_1 \sim R_{11}$ 分别表示本说明书中定义的 $P_1 \sim P_{11}$ 、 $Q_1 \sim Q_{11}$ 、 $R_1 \sim R_{11}$, L_1 和 L_{11} 分别表示本说明书中记载的 L_1 和 L_{11} , $L_2 \sim L_{10}$ 是单键, $\bigcirc$ 是指树脂部分。)

[3159] 另外, 上述结构示出了, 在Fmoc-氨基酸中, 树脂上的2-氯三苯甲基经由酯键与Fmoc氨基酸的羧酸键合。

[3160] 本说明书中记载的化合物的制备中, 在定义的基团在所实施方法的条件下发生不希望的化学变换的情况下, 可以通过例如官能团的保护、脱保护等方法来制备该化合物。对于保护基的选择和脱附操作, 例如可以举出Greene的“Protective Groups in Organic Synthesis”(第5版, John Wiley&Sons, 2014)中记载的方法, 可以根据反应条件适当地使用这些。另外, 可以根据需要改变取代基引入等的反应工序的顺序。例如, 氨基的保护基可以列举Fmoc、Boc、Cbz或Alloc基等。对于这些氨基甲酸酯基, 可以通过在碱性催化剂的存在下使氨基与氨基甲酸酯化剂进行反应来引入。作为氨基甲酸酯化剂可以举出例如 Boc_2O 、 BocOPh 、 FmocOSu 、 FmocCl 、 CbzCl 、 AllocCl 等。作为碱性催化剂例如可以举出碳酸锂、碳酸钠、碳酸氢钠、碳酸钾、碳酸氢钾、碳酸铯、碳酸氢铯、氢氧化锂、氢氧化钠、氢氧化钾、氢氧化铯、磷酸钠、磷酸钾、 N -甲基吗啉、三乙胺、二异丙基乙胺、 N,N -二甲基氨基吡啶等。作为氨基保护基的氨基甲酸酯基可以在碱性条件下、酸性条件下或氢解反应的条件下等进行除去。

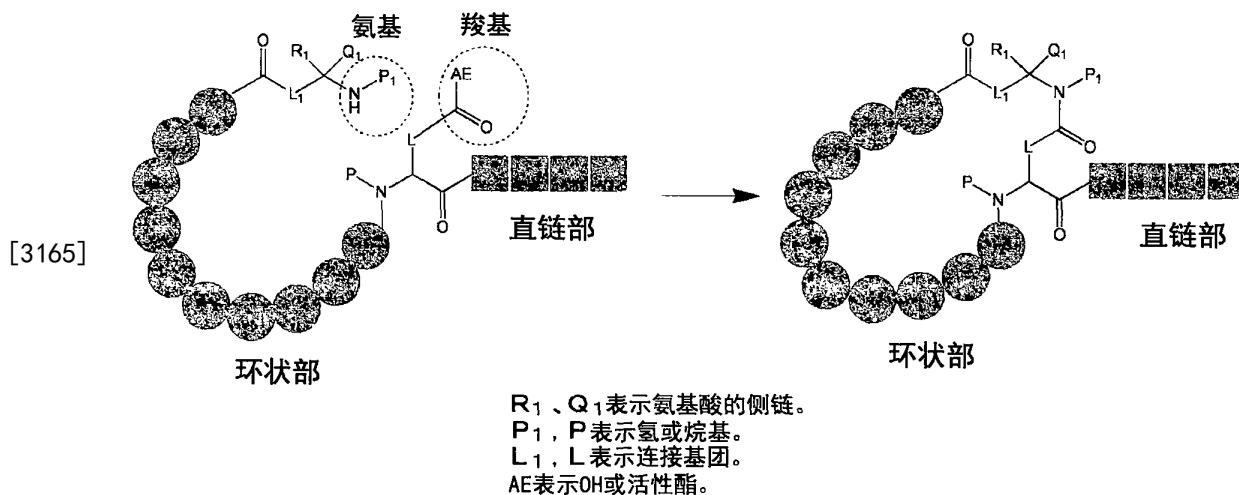
[3161] (环状肽化合物的环化方法)

[3162] 对于将直链状肽化合物转换为环状肽化合物的方法而言, 可以根据Comprehensive Organic Transformations, A Guide to Functional Group Preparations, 3rd Edition R.C.Larock著、或者March's Advanced Organic Chemistry: Reactions, Mechanisms, and Structure, 7th Edition, M.B.March著等中所记载的方法, 在分子内进行成键反应来实施。在成键反应后, 还可以进一步进行官能团转换反应。成键反应可以列举由羧酸和胺形成的 $\text{C}(O)-N$ 键, 利用了氧原子的 $\text{C}-O-C$ 键, $\text{C}(O)-O$ 键, $\text{C}(S)-O$ 键, 利用了硫原子的 $\text{C}(O)-S$ 键, $\text{C}(S)-S$ 键, $\text{C}-S-S-C$ 键, $\text{C}-S-C$ 键, $\text{C}-S(O)-C$ 键和 $\text{C}-S(O_2)-C$ 键, 利用了氮原子的 $\text{C}-N-C$ 键, $\text{C}=\text{N}-C$ 键, $\text{N}-C(O)-N$ 键, $\text{N}-C(S)N$ 键, $\text{C}(S)-N$ 键等。此外, 还可以举出铃木反应、Heck反应和Sonogashira反应等将过渡金属作为催化剂的 $\text{C}-C$ 键形成反应等。作为在成键反应之后进一步进行的官能团转换反应, 可以列举氧化反应或还原反应。具体而言可以列举将硫原子氧化而将其转化为亚砷基、砷基的反应。另外可以举出将碳-碳键中的三键、双键还原, 将其转换为双键或单键的还原反应。如果两个氨基酸在氨基酸的主链上键合, 则可通过肽键形成闭环结构, 但也可以通过两个氨基酸的侧链之间、侧链和主链之间的键合等来形成两个氨基酸之间的共价键。以下的黑圆圈或黑色方块表示氨基酸残基, 连接的黑圆圈或黑色方块表示通过酰胺键连接的肽链。构成肽链的氨基酸残基的个数没有特别

的限定,以下的黑圆圈或黑色方块的个数并不表示氨基酸残基的个数。

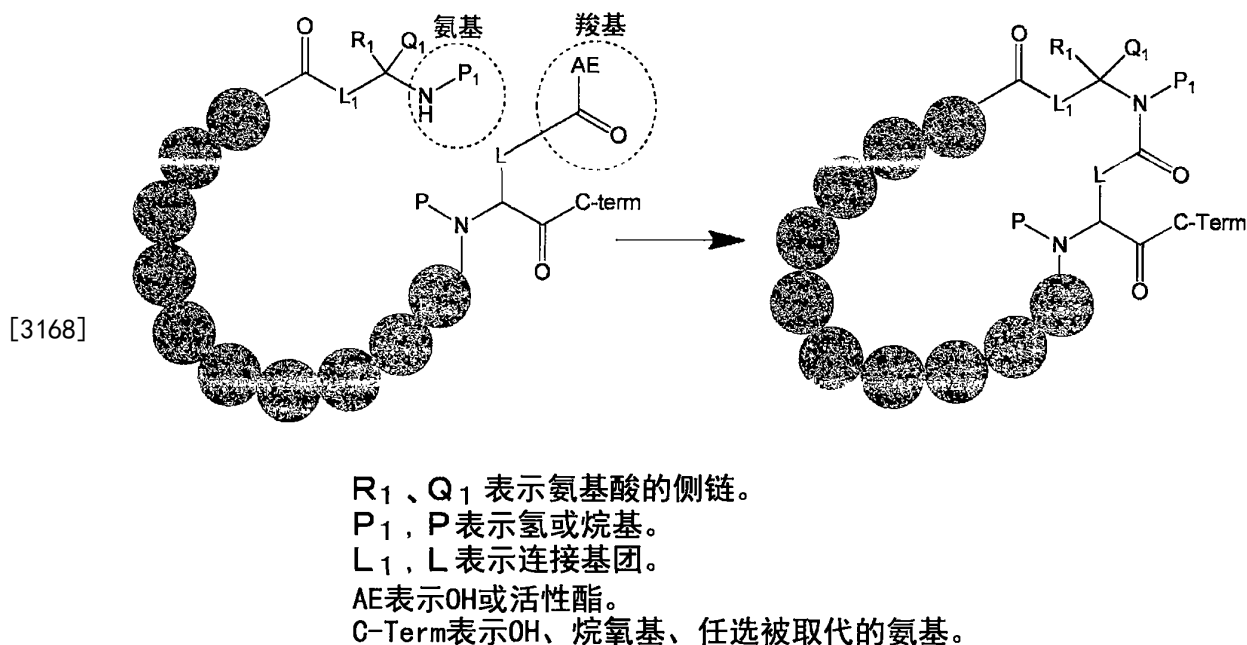
[3163] 需要说明的是在本说明书中,有时将具有环状部的肽化合物称为“环状肽化合物”。本说明书中,肽化合物的“环状部”是指两个以上的氨基酸残基连接而形成的环状的部分。

[3164] (环状肽化合物的一般制法1)



[3166] 对于具有直链部的环状肽化合物的环状部而言,可以通过用活化试剂使N末端的氨基和C末端侧的侧链的羧基(例如,在天冬氨酸或其衍生物的情况下, $L = -CH_2-$,在谷氨酸或其衍生物的情况下 $L = -CH_2CH_2-$)活化、或者将它们转换为活性酯,然后在分子内进行缩合反应,形成C(O)-N键,由此进行环化。

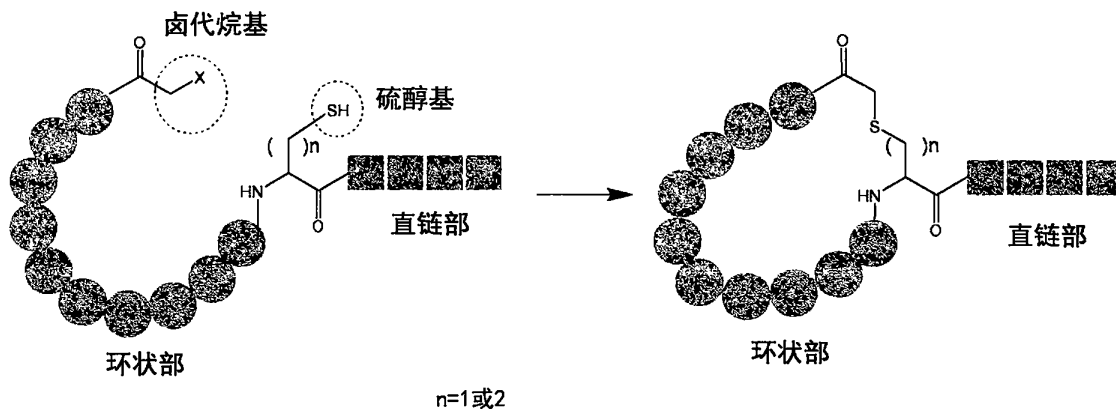
[3167] (环状肽化合物的一般制法2)



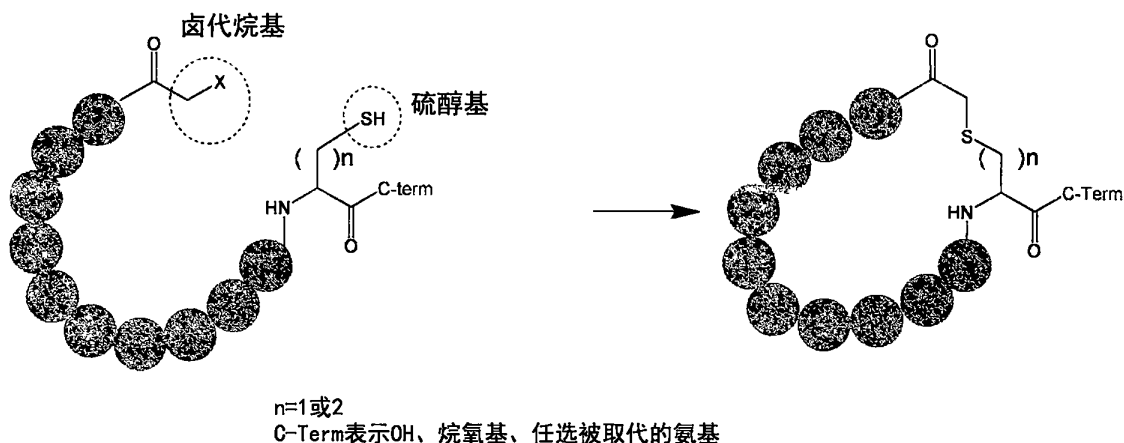
[3169] 对于“环状肽化合物的一般制法1”中记载的直链部变为C-Term的环状肽化合物而言,可以通过用活化试剂使N末端的氨基和C末端侧的侧链的羧基(例如,在天冬氨酸或其衍生物的情况下, $L = -CH_2-$,在谷氨酸或其衍生物的情况下 $L = -CH_2CH_2-$)活化、或者将它们转换为活性酯,然后在分子内进行缩合反应,形成C(O)-N键,由此进行环化。

[3170] (环状肽化合物的一般制法3)

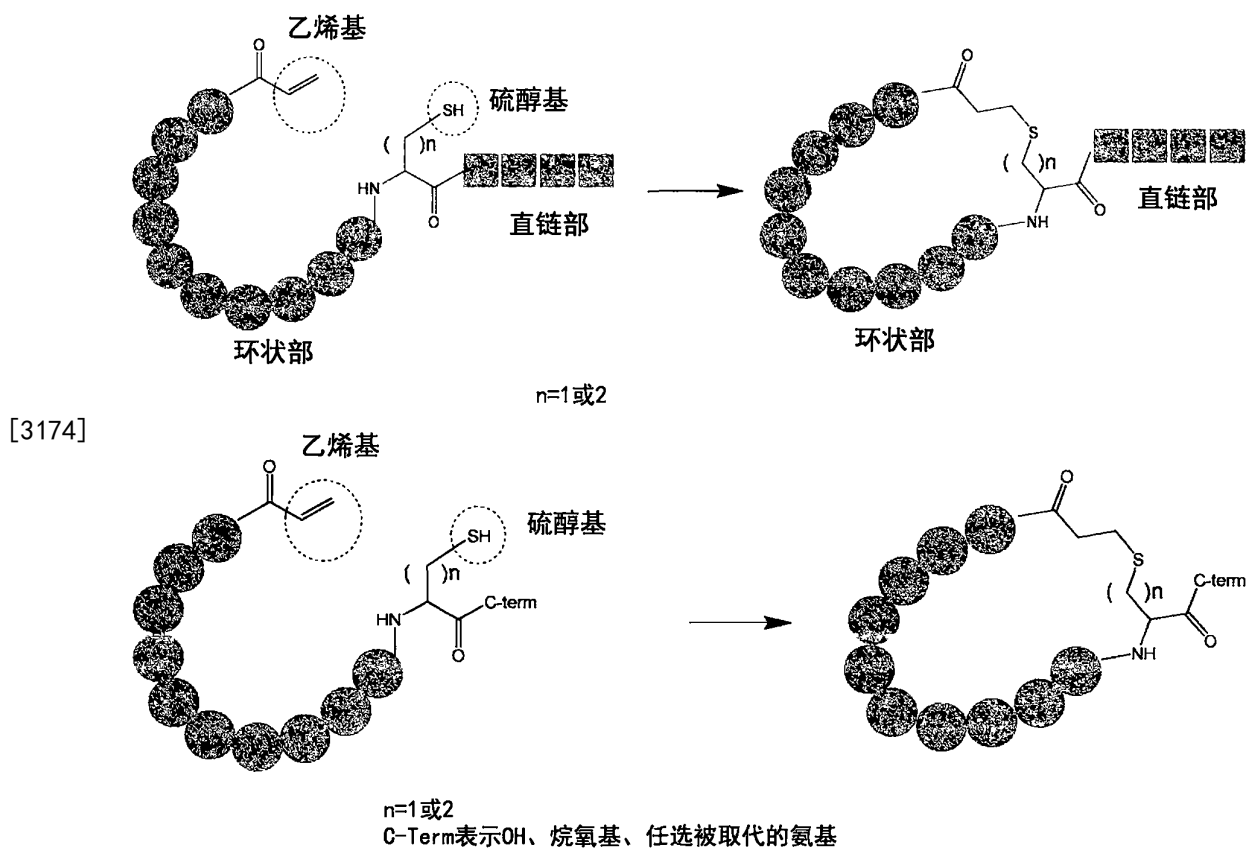
[3171] (利用卤代烷基和SH基进行环化的方法)



[3172]

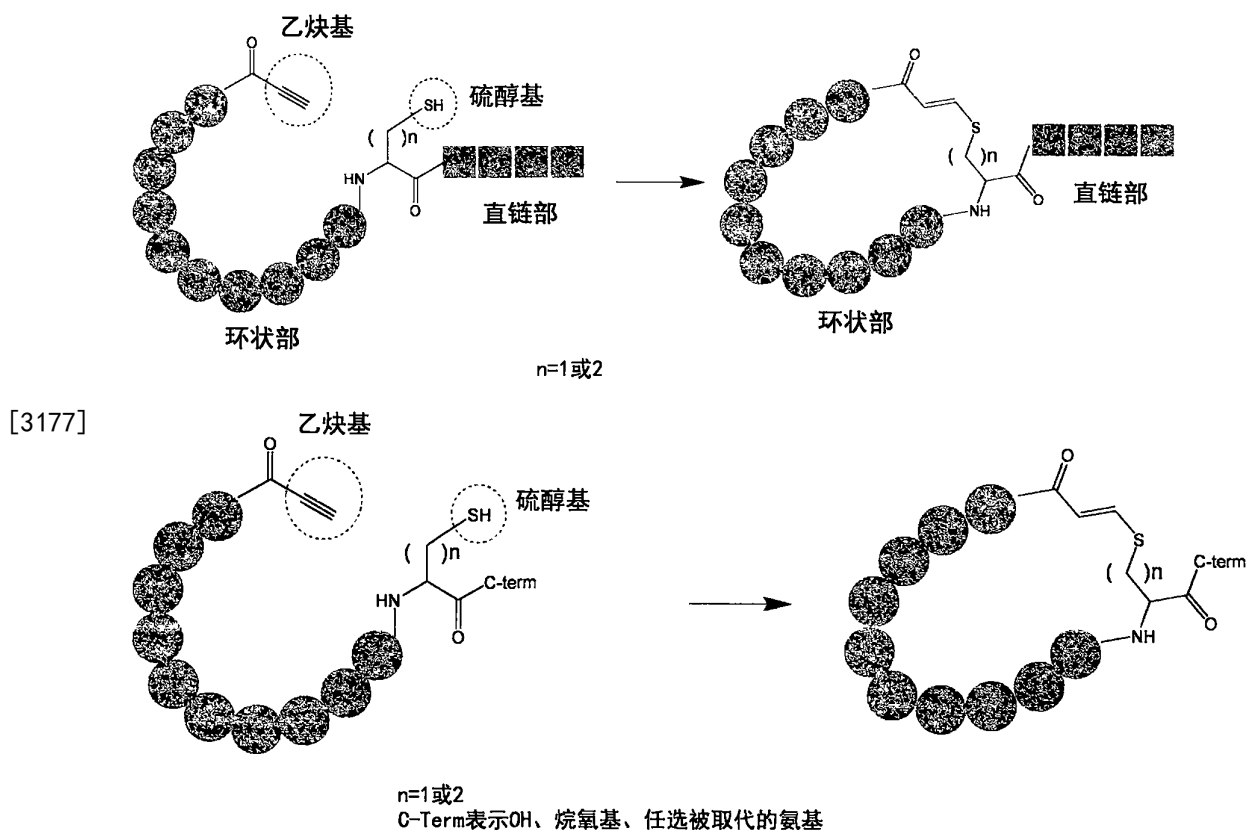


[3173] 对于具有直链部的环状肽化合物的环状部而言,可以通过使氨基酸残基的卤代烷基与氨基酸残基的硫醇基在分子内发生反应,形成C-S-C键从而环化。对于在“环状肽化合物的一般制法1”中记载的直链部变成C-Term的环状肽化合物也同样,可以通过使氨基酸残基的卤代烷基与氨基酸残基的硫醇基在分子内发生反应,形成C-S-C键从而环化。此外,也可以将硫原子氧化从而将其转换为亚砷、砷,形成C-S(O)-C键、C-S(O)₂-C键。(利用乙烯基和SH基进行环化的方法)



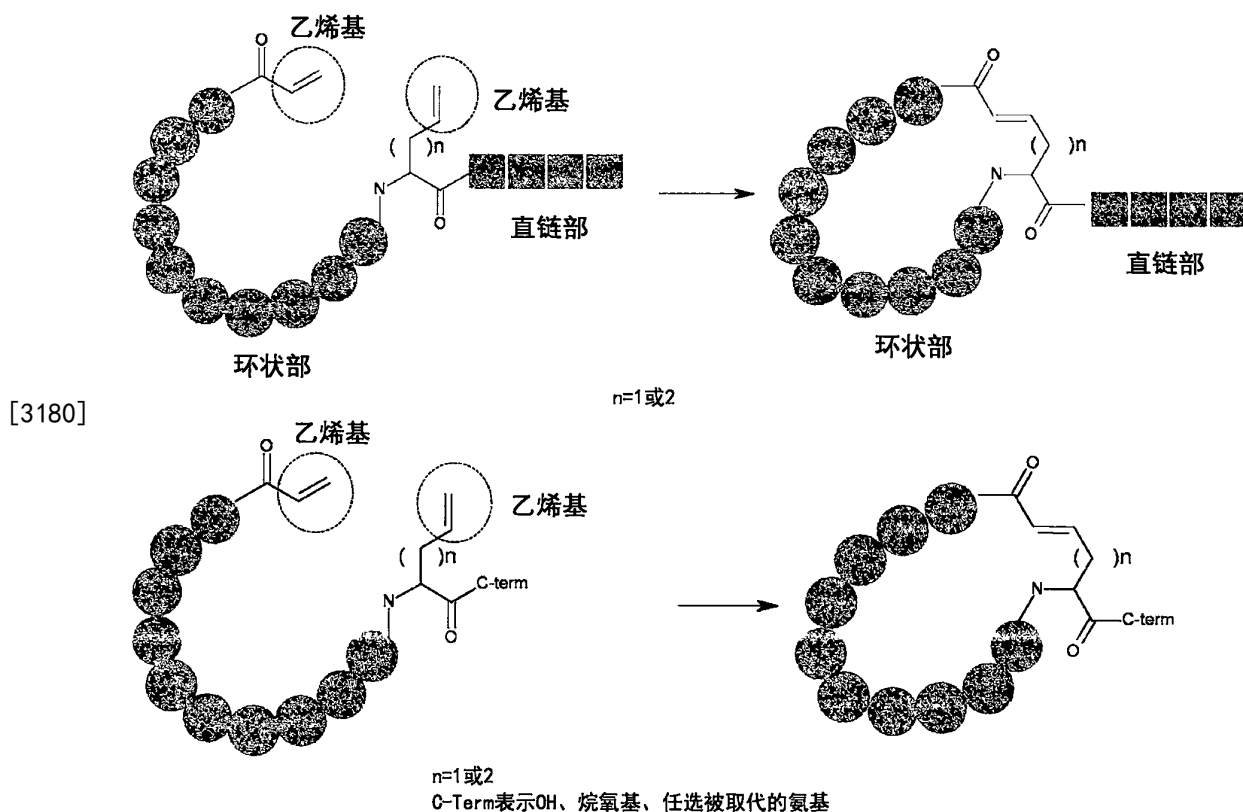
[3175] 对于具有直链部的环状肽化合物的环状部而言,可以通过使氨基酸残基的乙烯基与氨基酸残基的巯醇基在分子内发生反应,形成C-S-C键从而环化。对于在“环状肽化合物的一般制法1”中记载的直链部变成C-Term的环状肽化合物也同样,可以通过使氨基酸残基的乙烯基与氨基酸残基的巯醇基在分子内发生反应,形成C-S-C键从而环化。此外,也可以将硫原子氧化从而将其转换为亚砷、砷,形成C-S(O)-C键、C-S(O)₂-C键。

[3176] (利用乙炔基和SH基进行环化的方法)



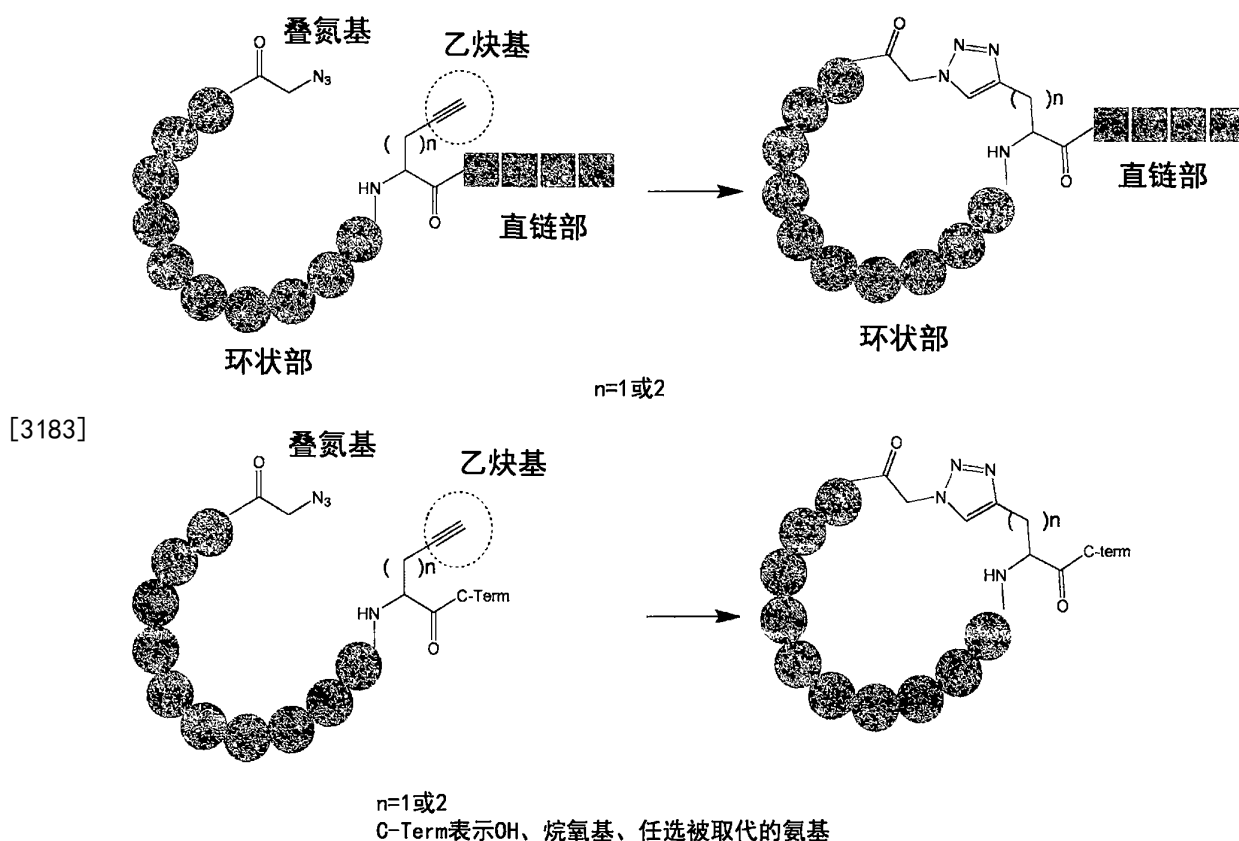
[3178] 对于具有直链部的环状肽化合物的环状部而言,可以通过使氨基酸残基的乙炔基与氨基酸残基的硫醇基在分子内发生反应,形成C-S-C键从而环化。对于在“环状肽化合物的一般制法1”中记载的直链部变成C-Term的环状肽化合物也同样,可以通过使氨基酸残基的乙炔基与氨基酸残基的硫醇基在分子内发生反应,形成C-S-C键从而环化。此外,也可以将硫原子氧化从而将其转换为亚砷、砷,形成C-S(O)-C键、C-S(O)₂-C键。也可以将双键部分还原从而转换为单键。

[3179] (利用乙烯基和乙烯基进行环化的方法)



[3181] 对于具有直链部的环状肽化合物的环状部而言,可以通过使氨基酸残基的不同的乙烯基彼此在分子内发生反应,形成C-C键而环化。对于在“环状肽化合物的一般制法1”中记载的直链部变成C-Term的环状肽化合物也同样,可以通过使氨基酸残基的不同的乙烯基彼此在分子内发生反应,形成C-C键而环化。

[3182] (利用叠氮基和乙炔基形成三唑环从而进行环化的方法)



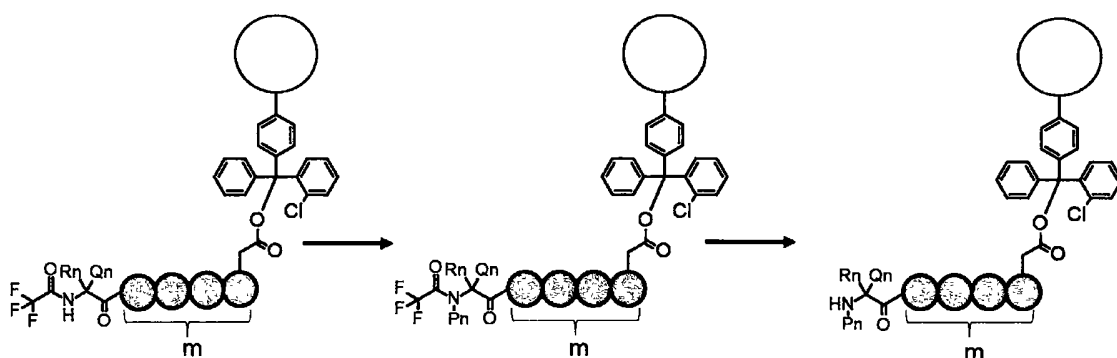
[3184] 对于具有直链部的环状肽化合物的环状部而言,可以通过使氨基酸残基的叠氮基与氨基酸残基的乙炔基在分子内发生反应,形成三唑环而环化。对于在“环状肽化合物的一般制法1”中记载的直链部变成C-Term的环状肽化合物也同样,可以通过使氨基酸残基的叠氮基与氨基酸残基的乙炔基在分子内发生反应,形成三唑环而环化。

[3185] 以下示出利用肽修饰的肽化合物的一般制法。在以下简图中, P_n 表示氮原子的取代基, R_n 和 Q_n 表示氨基酸的侧链,黑圆圈表示氨基酸残基,连接的黑圆圈表示通过酰胺键连接的肽链, m 表示氨基酸的残基数,其可以取1以上的任意整数。

[3186] (含有N-烷基氨基酸的肽的制备方法)

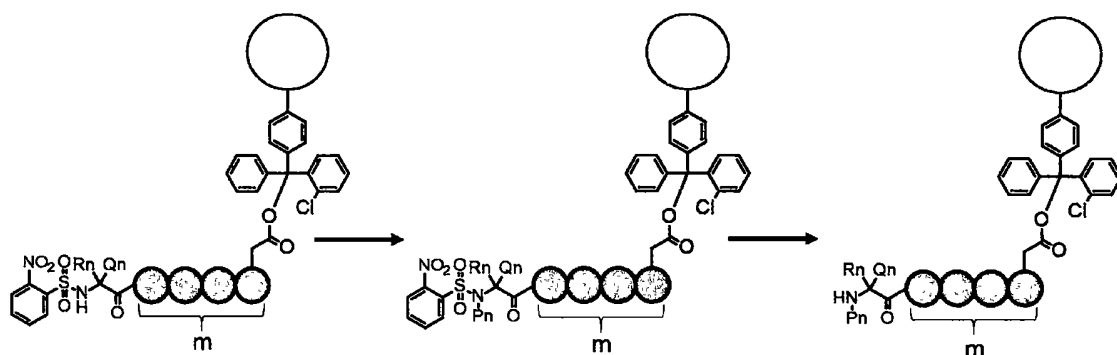
[3187] 对于含有N-烷基氨基酸的肽而言,除了使用被Fmoc保护的N-烷基氨基酸作为原料按照本实施例中记载的一般的肽合成方法来合成的方法之外,可以通过以下方法所示的将树脂上的N末端的氮进行烷基化来制备。具体而言,使担载于树脂的肽的N末端Tfa酰胺(三氟乙酰胺)的氮在碱性条件下与卤代烷发生反应,接着参考Organic Letters,2008,10,4815-4818等用还原剂进行处理,由此可以制备作为目标的N末端具有N-烷基氨基酸的肽。进而可以按照本实施例记载的一般的肽合成方法进行肽延伸、从树脂上的切割、环化、脱保护、纯化从而制备环状肽化合物。

[3188]



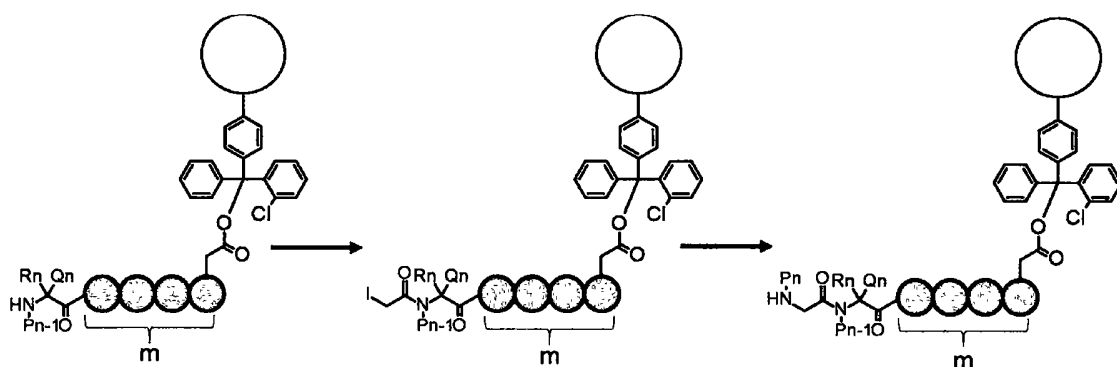
[3189] 作为将Pn引入到N末端的氮的另一种方法,也可以使用以下方法所示的在Nature Protocols,2012,7,432-444中记载的方法。具体而言,将担载于树脂上的肽的N末端的胺衍生为Ns取代物,通过光延反应引入Pn,接着进行Ns基的脱保护,由此可以获得作为目标的N末端具有P_n的肽。进而可以按照本实施例记载的一般的肽合成方法进行肽延伸、从树脂上的切割、环化、脱保护、纯化从而制备环状肽化合物。

[3190]



[3191] 作为含有在氮原子上引入有P_n的甘氨酸的肽的合成方法,除了使用在被Fmoc保护的氮原子上引入有P_n的甘氨酸作为原料按照本实施例中记载的一般的肽合成方法来合成的方法之外,可以通过以下方法所示的N末端卤化碳和胺之间的取代反应来制备。具体而言,使碘乙酸与N末端的胺反应,然后参考Organic Letters,2010,12,4928-4931等,使之与任意的伯胺反应,由此可以获得作为目标的在N末端具有氮原子上引入有P_n的甘氨酸的肽。进而可以按照本实施例记载的一般的肽合成方法进行肽延伸、从树脂上的切割、环化、脱保护、纯化从而制备环状肽化合物。

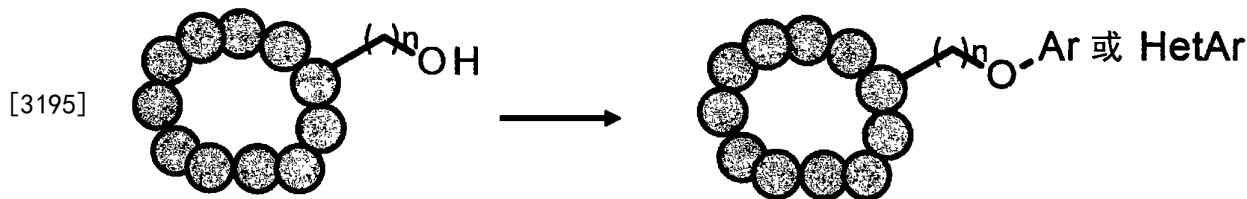
[3192]



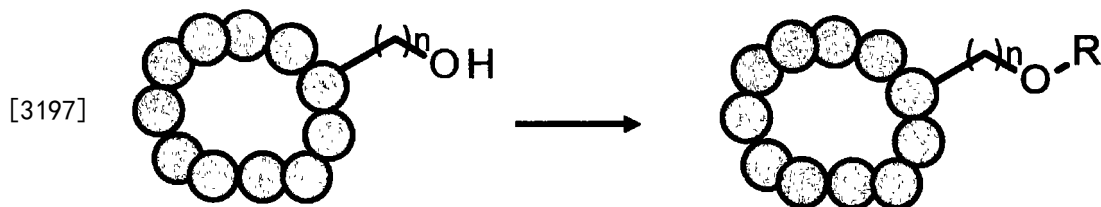
[3193] (侧链含有芳氧基或杂芳氧基的肽的制备方法)

[3194] 对于侧链含有芳氧基或杂芳氧基的肽而言,除了使用在侧链具有目标芳氧基或杂芳氧基的Fmoc氨基酸作为原料,按照本实施例中记载的一般的肽合成法来制备的方法之外,可以通过以下方法所示的将侧链具有醇的肽作为前体,参考Organic Letters,2014,

16,4944-4947或Tetrahedron Letters,2003,44,3863-3865等来制备。具体而言,在乙酸铜(II)的存在下,使侧链具有醇的肽与三芳基硼氧烷-吡啶络合物反应,由此可以制备侧链具有芳氧基或杂芳氧基的肽。以下,n表示亚甲基的数量,可以取1以上的任意整数。

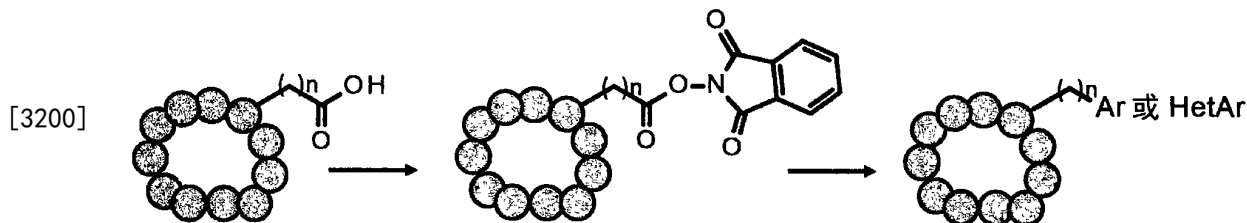


[3196] 对于侧链具有除芳氧基或杂芳氧基之外的醚基的肽而言,除了使用侧链具有目标醚基的Fmoc氨基酸作为原料,按照本实施例中记载的一般的肽合成法来制备的方法之外,可以通过以下方法所示的使用侧链具有醇的肽作为前体,参考Journal of Medicinal Chemistry,2011,54,4815-4830中记载的方法或Journal of Medicinal Chemistry,2014,57,159-170中记载的方法来制备。具体而言,可以通过在氧化银(I)的存在下使具有醇的肽与醚化剂(例如卤代烷)反应的方法,或者可以通过使用氢氧化钠水溶液作为碱,在四烷基铵盐之类的相转移催化剂的存在下,使具有醇的肽与醚化剂(例如卤代烷)反应的方法,来制备侧链具有目标醚基的肽。



[3198] (侧链含有芳基或杂芳基的肽的制备方法)

[3199] 对于侧链具有芳基或杂芳基的肽而言,除了使用侧链具有目标芳基或杂芳基的Fmoc氨基酸作为原料,按照本实施例中记载的一般的肽合成法来制备的方法之外,可以通过以下方法所示的将侧链具有羧酸的肽作为前体,参考J. Am. Chem. Soc., 2016, 138, 5016-5019等来制备。具体而言,用N-羟基邻苯二甲酰亚胺来活化侧链具有羧酸的肽,并使其与任意的芳基卤化物或杂芳基卤化物进行反应,由此可以制备侧链具有目标芳基或杂芳基的肽。以下n表示亚甲基的数量,可以取1以上的任意整数。



[3201] 作为侧链具有芳基或杂芳基的肽的另一种制备方法,也可以通过以下方法所示的使用在侧链具有硼酸的肽作为前体的铃木偶合来进行合成。具体而言,使用侧链具有硼酸的Fmoc氨基酸作为原料合成前体肽,并在钯催化剂存在下与任意芳基卤化物进行反应,由此可以制备作为目标的侧链具有芳香环的肽。

[3202]

The diagram illustrates a chemical transformation. On the left, a macrocyclic structure composed of 12 shaded spheres is attached to a boronic acid group, $(-CH_2)_n-B(OH)_2$. An arrow points to the right, where the same macrocycle is shown attached to an aryl or heteroaryl group, $(-CH_2)_n-Ar$ or $(-CH_2)_n-HetAr$.

[3203] (侧链含有酰胺基的肽的制备方法)

[3204] 对于侧链具有酰胺基的肽而言,除了使用侧链具有目标酰胺基的Fmoc氨基酸作为原料来合成的方法之外,可以通过以下方法所示的将侧链具有羧酸的肽作为前体进行酰胺化来合成。具体而言,对侧链具有受保护的羧酸的肽进行脱保护而合成侧链具有羧酸的前体肽,使用HATU等作为缩合剂使其与任意胺缩合,由此可以制备侧链具有酰胺基的肽。以下n表示亚甲基的数量,可以取1以上的任意整数。

[3205]

Chemical reaction scheme showing the conversion of a polymer with a protected carboxylic acid end group to a polymer with a tertiary amine end group. The scheme consists of three structures connected by arrows. The first structure shows a polymer chain (represented by a ring of spheres) with a terminal group $-(CH_2)_n-C(=O)OPG$. The second structure shows the intermediate $-(CH_2)_n-C(=O)OH$. The third structure shows the final product $-(CH_2)_n-C(=O)N(R_1)(R_2)$.

[3206] (侧链含有双键的肽的合成)

[3207] 对于侧链具有双键的肽的合成而言,除了使用侧链具有目标双键的Fmoc氨基酸作为原料来合成的方法之外,可以通过末端烯烃的官能团化来制备。具体而言,按照本实施例中记载的一般的肽合成方法来合成侧链具有末端烯烃的肽,进而与任意具有末端烯烃的基质通过烯烃复分解反应进行偶合,由此可以转换为具有高度取代的烯烃的侧链。此外,也可以通过氢化反应还原烯烃从而转换为相应的侧链。以下n表示亚甲基的数量,可以取1以上的任意整数。

[3208]

Chemical reaction scheme showing the polymerization of a vinyl monomer onto a ring-shaped polymer. The first structure shows a ring of 10 spheres with a vinyl group ($-CH=CH_2$) attached via a chain of n spheres. An arrow points to the second structure, where the vinyl group has reacted with R_1 and R_2 to form a substituted chain. A second arrow points to the third structure, where the chain has grown by one unit, now having $n+1$ spheres in the chain connecting the ring to the R_1 and R_2 substituted end.

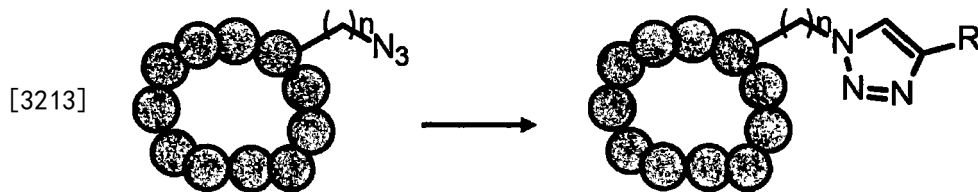
[3209] 另外,可以使用侧链具有多个双键的肽来制备肽主链发生交联的肽化合物。具体而言,按照本实施例中记载的一般的肽合成方法来合成在侧链的两处具有末端烯烃的肽,进而参考Nature Protocols 2011,6,761-771通过烯烃复分解反应对两处的烯烃进行交联,由此可以制备交联型的化合物。此外,可以通过氢化反应还原烯烃来制备由饱和亚烷基交联的化合物。以下 m 和 n 表示亚甲基的数量,可以独立地取1以上的任意整数。

[3210]

The diagram illustrates the polymerization of a macrocyclic monomer. It consists of three stages connected by arrows. In the first stage, a ring of 12 spheres (6 top, 6 bottom) has two vinyl groups attached, labeled (m) and (n) . An arrow points to the second stage, where the ring has opened to form a linear chain with a double bond at one end. A second arrow points to the third stage, where the chain has closed to form a new ring of 14 spheres (7 top, 7 bottom), with the (m) and (n) labels still present.

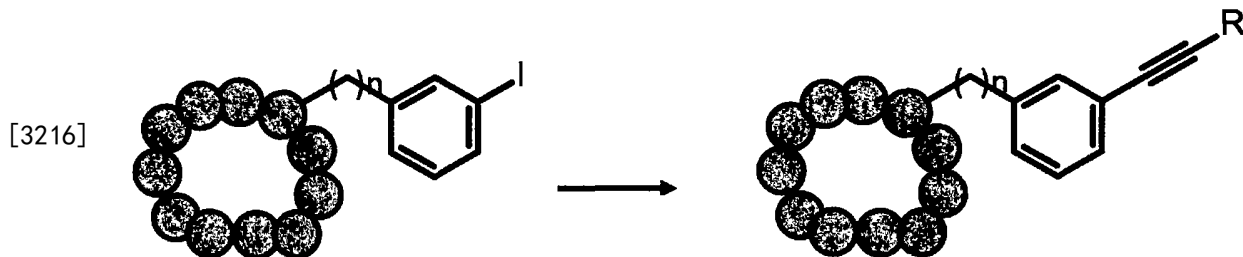
[3211] (侧链含有三唑的肽的合成)

[3212] 侧链具有三唑的肽可以通过与叠氮基的点击反应(click reaction)来制备。具体而言,按照本实施例中记载的一般的肽合成方法来合成侧链具有叠氮基的肽,进而参考Bioorganic&Medicinal Chemistry Letters,2009,19,4130-4133等,在碘化铜(I)的存在下与任意的乙炔偶合,由此可以制备侧链具有三唑的肽化合物。以下n表示亚甲基的数量,可以取1以上的任意整数。



[3214] (侧链含有被炔基取代的芳基的肽的合成)

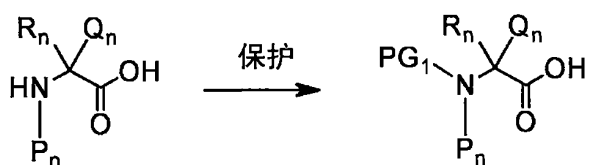
[3215] 侧链含有被炔基取代的芳基的肽可以通过与卤代芳基的菌头偶合反应(Sonogashira coupling reaction)来合成。具体而言,按照本实施例中记载的一般的肽合成方法来合成侧链具有碘代芳基的肽,进而在碘化铜(I)的存在下与任意乙炔偶合,由此可以转换为侧链具有被炔基取代的芳基的肽。以下n表示亚甲基的数量,可以取1以上的任意整数。



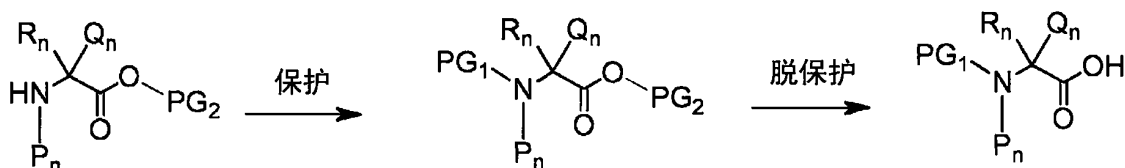
[3217] (非天然氨基酸的一般制法)

[3218] 以下示出氨基酸的氮原子受保护的C末端游离的非天然氨基酸的一般制法。在以下简图中,PG₁和PG₁'分别表示氮原子的保护基,PG₂和PG₂'分别表示氧原子的保护基,PG₃和PG₄分别表示氨基酸侧链的保护基,R_n和Q_n分别表示氨基酸侧链,P_n表示氮原子的取代基,P'表示C₁-C₅烷基,R、R'、R''和R'''分别表示氢或氨基的取代基。在以下所示的氨基酸的制备方法中,有时目标官能团以外的官能团会发生化学反应。在这种情况下,通过向非目标官能团引入保护基,能够仅进行所需的反应。这种保护基的脱附反应可以举出例如“Greene's Protective Groups in Organic Synthesis”(第5版,John Wiley&Sons 2014)中记载的方法。对于化合物官能团的转换反应,可以参考Larock的“Comprehensive Organic Transformations:A Guide to Functional Group Preparations”(第5版)或Smith的“March's Advanced Organic Chemistry:Reactions,Mechanisms,and Structure”(第8版)。

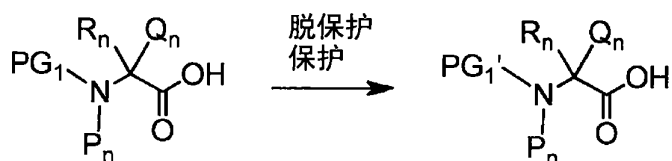
[3219] 可以使用以下方法来制备在氨基酸的氮原子引入有保护基(PG₁)的非天然氨基酸。按照常规方法对可从商业供应商获得的N末端游离氨基酸进行保护基引入反应并且根据需要进行脱保护反应,由此可以制备目标C末端游离的非天然氨基酸。



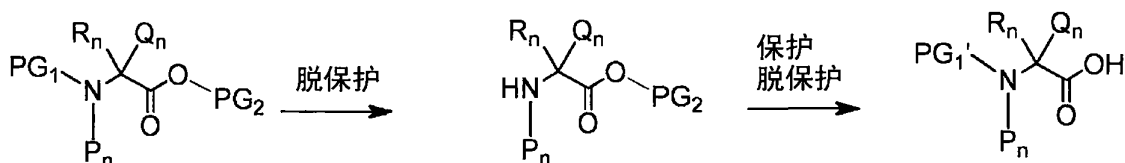
[3220]



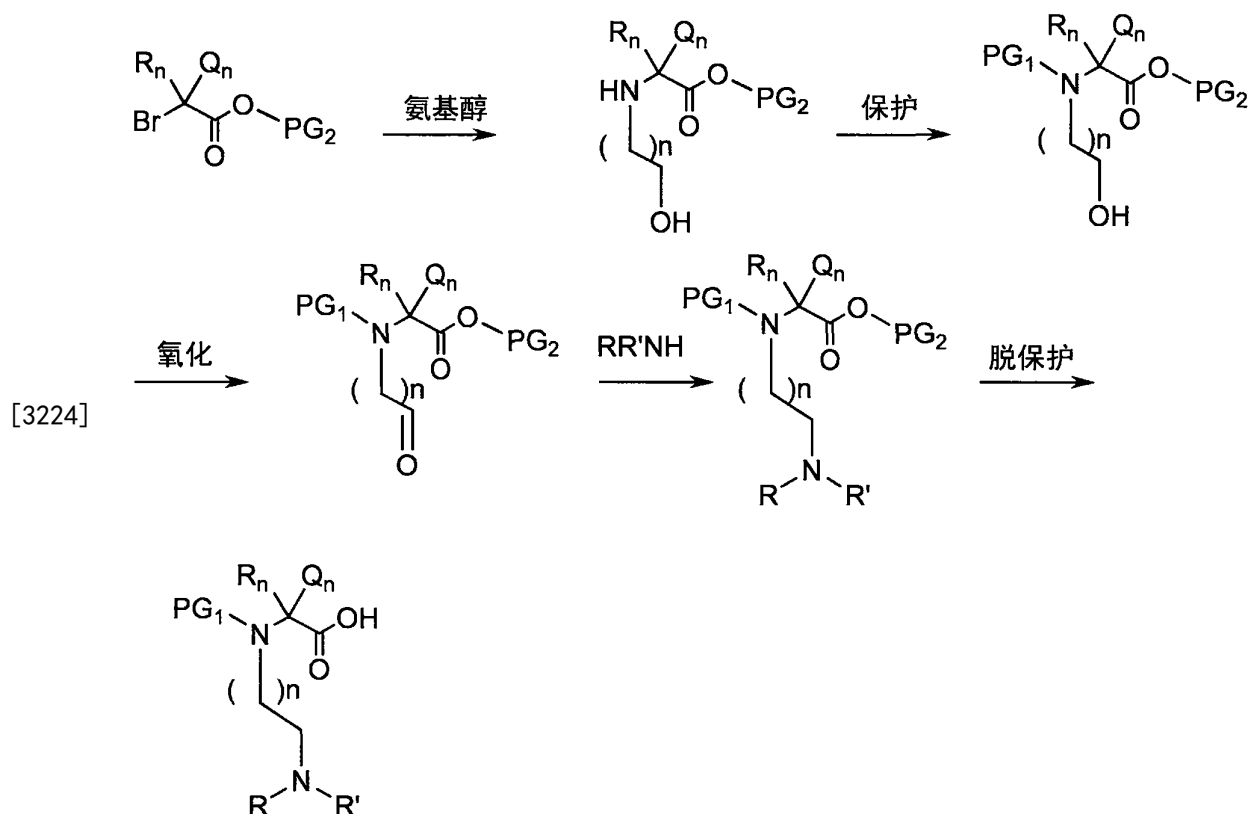
[3221] 可以使用以下方法来制备在氨基酸的氮原子引入有保护基(PG₁′)的非天然氨基酸。按照常规方法对可从商业供应商获得的在N末端引入有保护基(PG₁′)的氨基酸进行脱保护反应和保护基引入反应,由此可以制备目标C末端游离的非天然氨基酸。



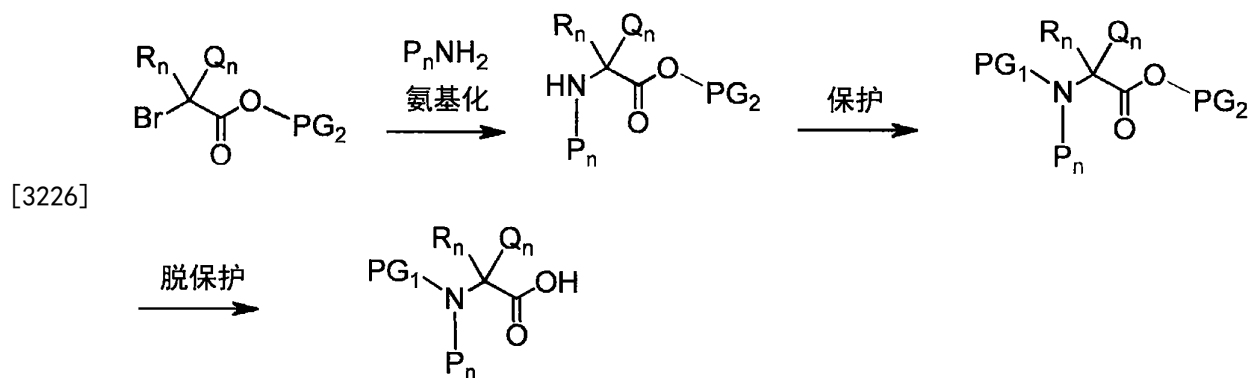
[3222]



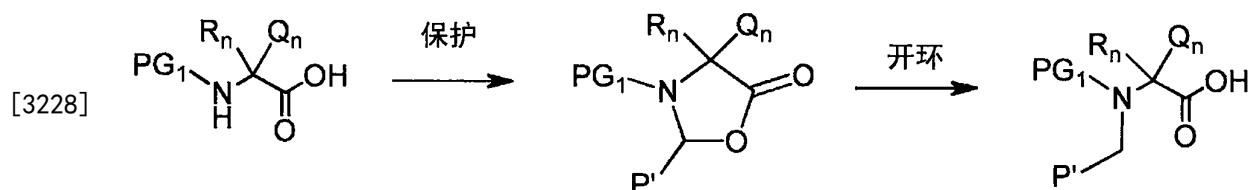
[3223] 可以使用以下方法来制备在氨基酸的氮原子的取代基(P_n)引入有氨基烷基的非天然氨基酸。根据King等人的方法(Tetrahedron Letters, 2002, 43 (11), 1987-1990), 使可从商业供应商获得的溴乙酸酯衍生物与氨基醇进行反应, 接着向氮原子引入保护基(PG₁)。然后, 根据Dess等人的方法(J. Org. Chem., 1983, 48 (22), 4155-4156) 将羟基氧化后, 根据Borch等人的方法(J. Org. Chem. 1972, 37 (10), 1673-1674) 对醛基进行还原氨基化反应, 由此引入氨基。接下来, 对氧原子的保护基进行脱保护, 由此可以制备目标C末端游离的非天然氨基酸。



[3225] 也可以按照向氨基酸的氮原子引入取代基 (P_n) 的以下简图来制备N-取代氨基酸。在碱存在下,使可从商业供应商获得的溴乙酸酯衍生物与胺 (P_nNH_2) 进行反应,接着将保护基 (PG_1) 引入到氮原子。接着对氧原子的保护基进行脱保护,由此可以制备目标C末端游离的非天然氨基酸。

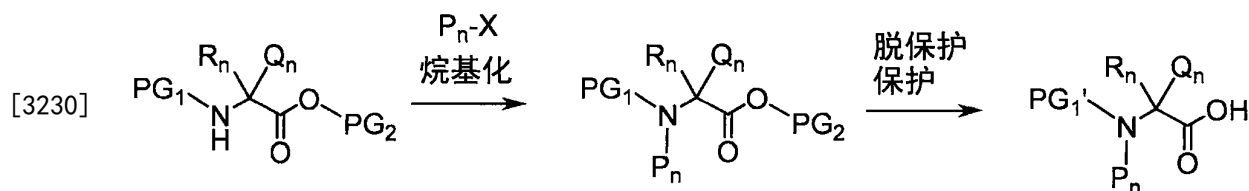


[3227] 可以按照以下简图来制备在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的非天然氨基酸。根据Freidinger等人的方法 (J.Org.Chem., 1983, 48 (1), 77-81), 使醛作用于可从商业供应商获得的C末端游离的氨基酸, 由此可以获得引入有环状保护基的噁唑烷酮化合物。接着进行开环反应, 由此可以制备目标C末端游离的非天然氨基酸。

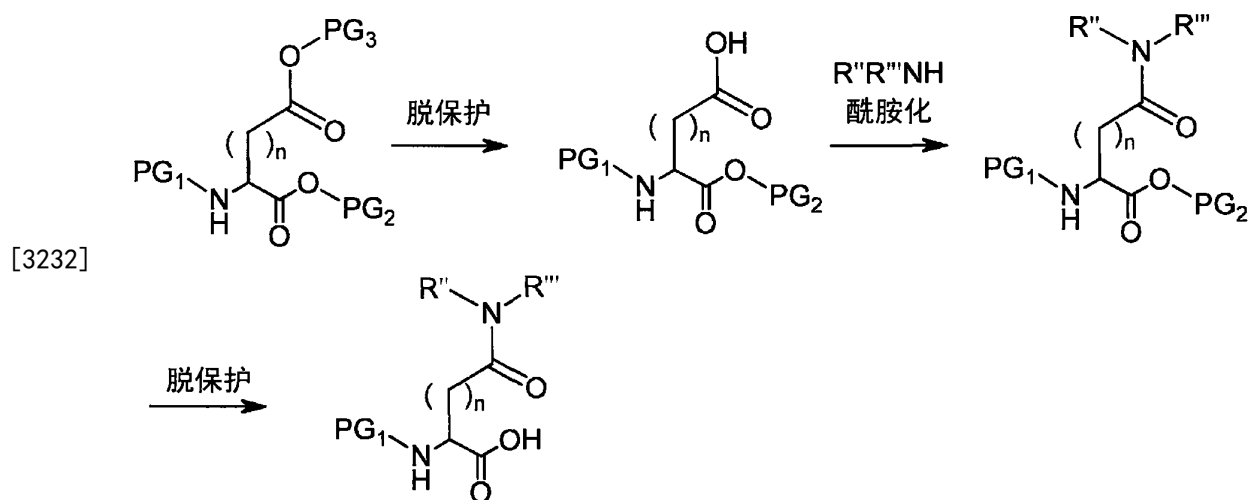


[3229] 可以按照以下简图来制备在氨基酸的氮原子引入有 P_n 基的非天然氨基酸。在碱的

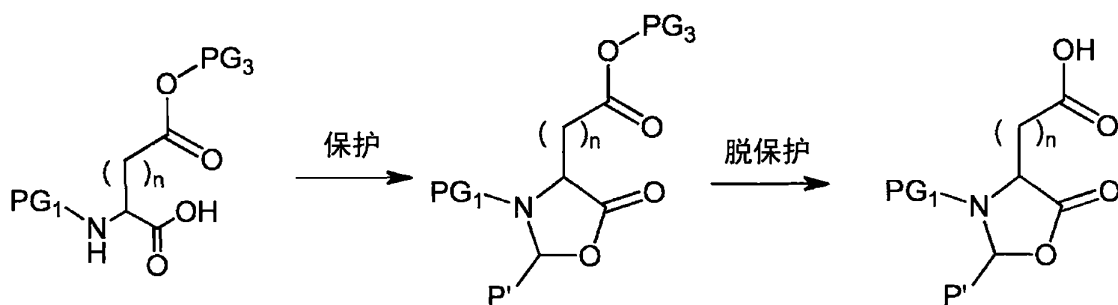
存在下使烷基化剂 (P_n-X) 作用于市售的C末端游离的氨基酸,由此可以引入 P_n 基。接着对C末端的保护基进行脱保护,由此可以制备C末端游离的非天然氨基酸。



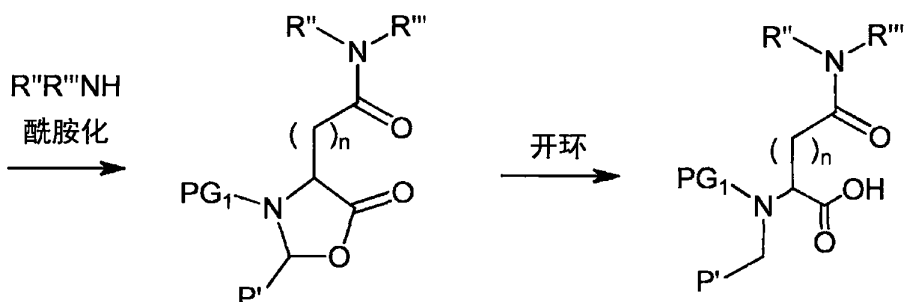
[3231] 可以按照以下简图来制备在氨基酸的侧链引入有酰胺基的非天然氨基酸。使胺 ($R''R'''NH$) 作用于将市售的受保护的氨基酸 ($n=1$ 或 2) 脱保护而获得的氨基酸,由此可以向侧链引入酰胺基。接着对C末端的保护基进行脱保护,由此可以制备C末端游离的非天然氨基酸。



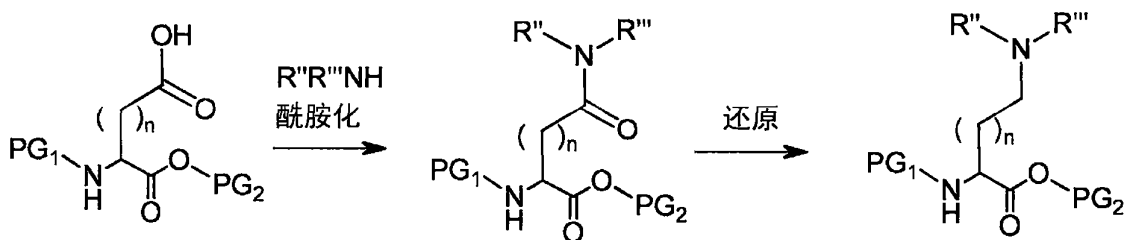
[3233] 可以按照以下简图来制备在氨基酸侧链引入有酰胺基并且在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的非天然氨基酸。根据Freidinger等人的方法(J.Org.Chem.,1983,48(1),77-81),通过使醛作用于市售的受保护的氨基酸 ($n=1$ 或 2),可以获得引入有环状保护基的噁唑烷酮化合物。接着,将侧链保护基脱保护后,使胺 ($R''R'''NH$) 作用于其上,可以得到酰胺化合物。接着进行开环反应,由此可以制备目标C末端游离的非天然氨基酸。



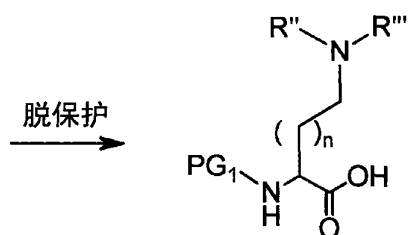
[3234]



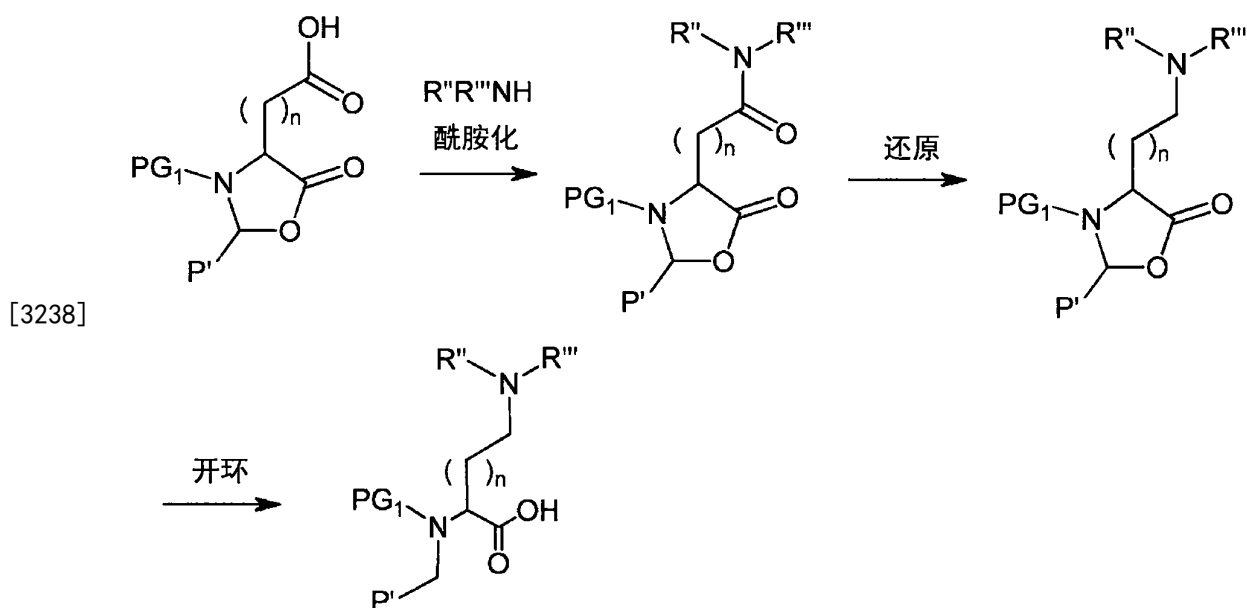
[3235] 可以按照以下简图来制备在氨基酸侧链引入有氨基的非天然氨基酸。通过使胺 ($R''R'''NH$) 作用于市售的受保护的氨基酸 ($n=1$ 或 2) 的羧基,由此可以将酰胺基引入到侧链。接着,根据Reeves等人的方法 (Advanced Synthesis&Catalysis,2013,355 (1),47-52) 进行还原反应,然后对C末端保护基进行脱保护,由此可以制备C末端游离的非天然氨基酸。



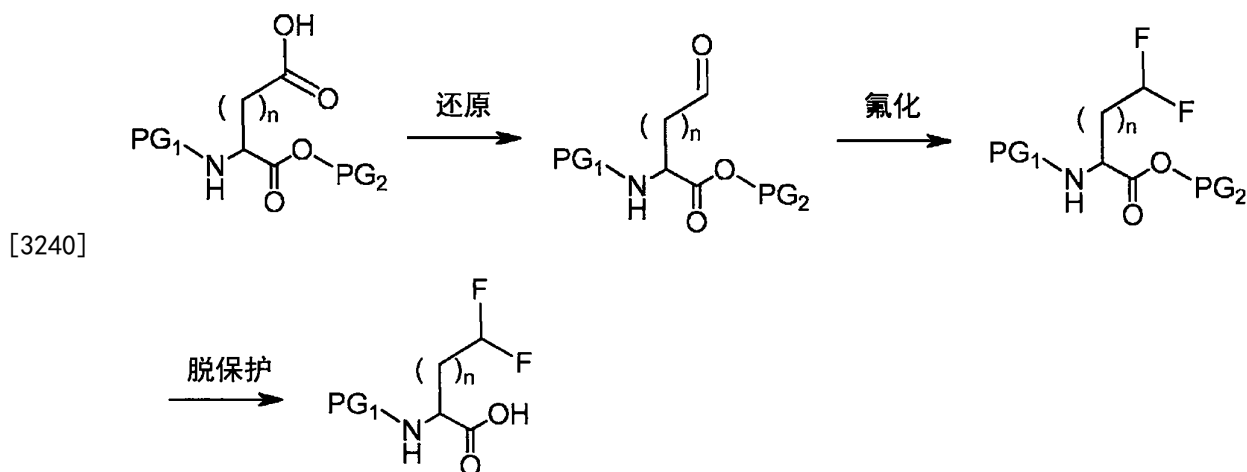
[3236]



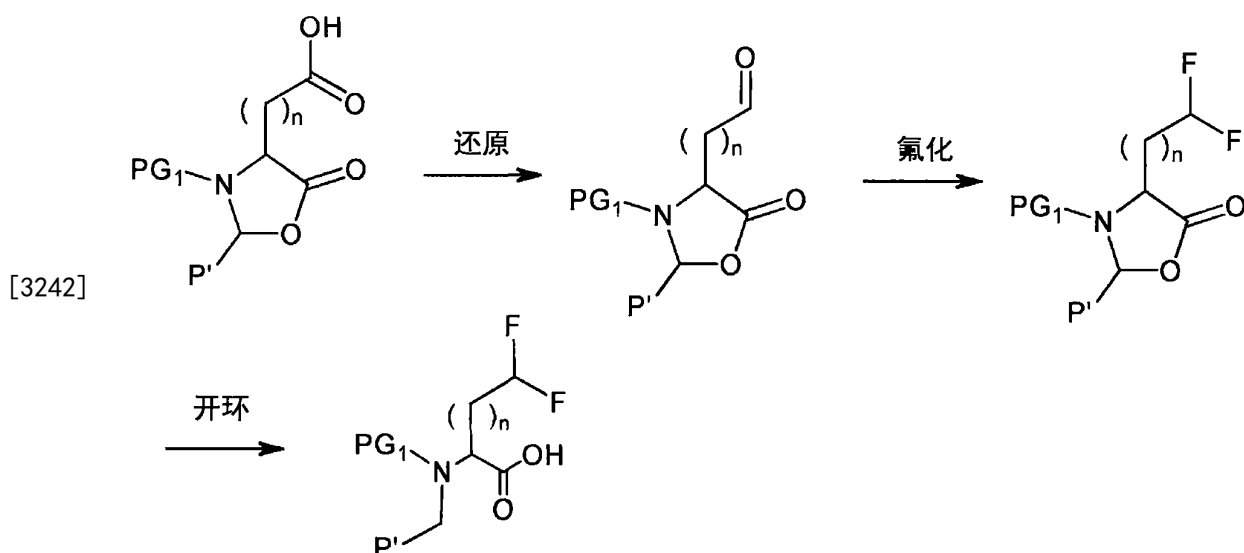
[3237] 可以按照以下简图来制备在氨基酸侧链引入有氨基并且在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的非天然氨基酸。通过使胺 ($R''R'''NH$) 作用于被环状保护基保护的氨基酸 ($n=1$ 或 2) 的羧基,由此可以在侧链引入酰胺基。接着,根据Reeves等人的方法 (Advanced Synthesis&Catalysis,2013,355 (1),47-52) 进行还原反应,然后进行开环反应,由此可以制备目标C末端游离的非天然氨基酸。



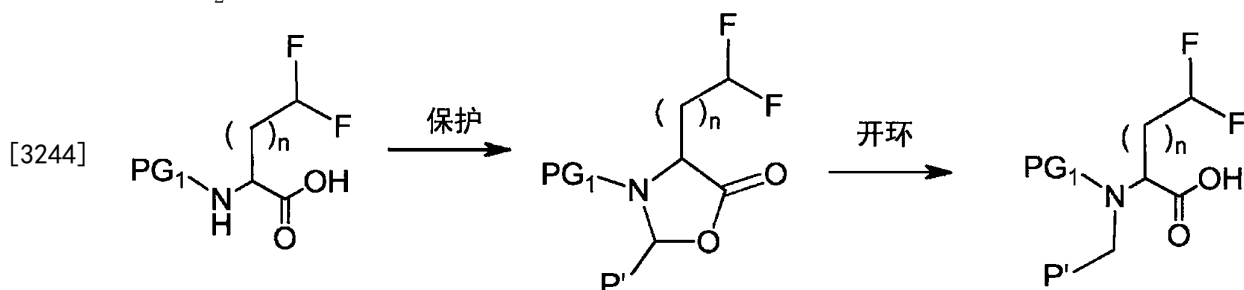
[3239] 可以按照以下简图来制备在氨基酸侧链引入有氟烷基的非天然氨基酸。将市售的受保护的氨基酸 ($n=1$ 或 2) 的羧基利用常规方法还原而转化为醛基,接着利用常规方法引入氟原子,由此可将醛基转换为二氟甲基。然后对C末端的保护基进行脱保护,由此可以制备目标C末端游离的非天然氨基酸。



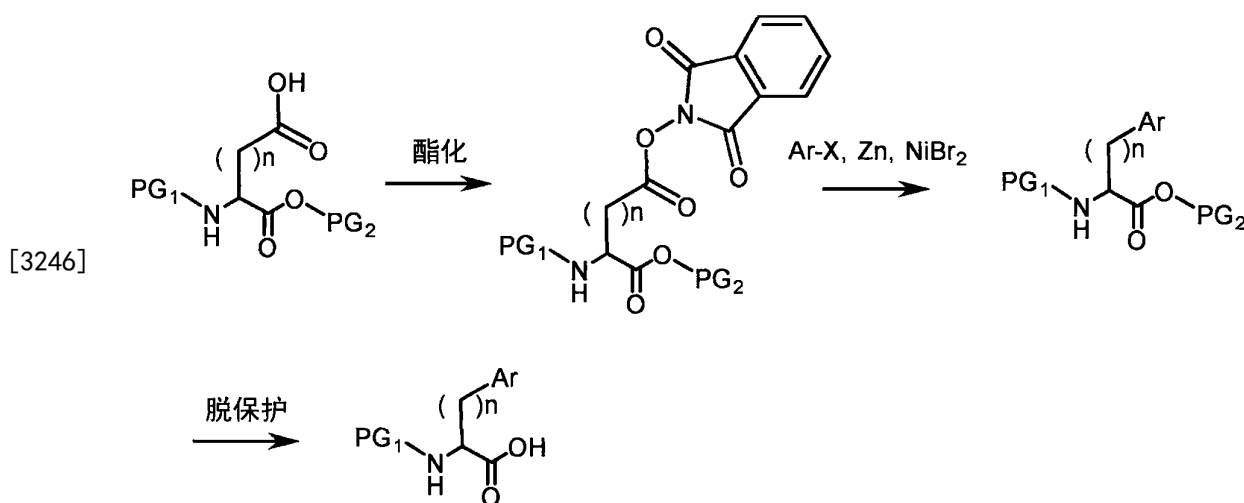
[3241] 可以按照以下简图来制备在氨基酸侧链引入有氟烷基并且在氨基酸的氮原子引入有 $-\text{CH}_2-\text{P}'$ 基团的非天然氨基酸。通过常规方法将被环状保护基保护的氨基酸 ($n=1$ 或 2) 的羧基还原而转变为醛基,接着通过常规方法引入氟原子,由此可以将醛基转换为二氟甲基。然后对C末端的环状保护基进行开环,由此可以制备C末端游离的非天然氨基酸。



[3243] 另外,通过下述方法也可以制备在氨基酸的侧链引入有氟烷基而且在氨基酸的氮原子引入有 $-\text{CH}_2-\text{P}'$ 基团的C末端游离的非天然氨基酸。

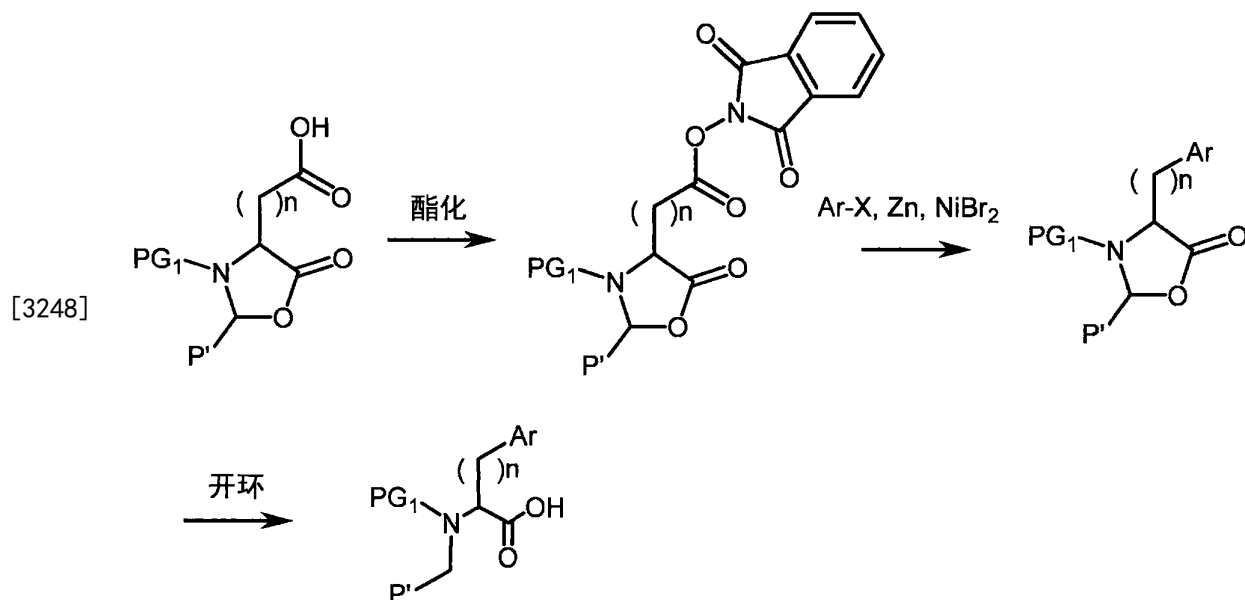


[3245] 可以按照以下简图来制备在氨基酸侧链引入有芳基或杂芳基(简图中,将这些基团称为“Ar”)的非天然氨基酸。通过使N-羟基邻苯二甲酰亚胺(NHPI)作用于受保护的氨基酸($n=1$ 或 2)的羧基,可以将NHPI基引入到侧链。按照Huihui等人的方法(J. Am. Chem. Soc., 2016, 138 (15), 5016-5019)使之与芳基卤或杂芳基卤发生反应,由此引入芳基或杂芳基,可以制备侧链具有芳烷基或杂芳烷基的非天然氨基酸。然后对C末端保护基进行脱保护,由此可以制备C末端游离的非天然氨基酸。

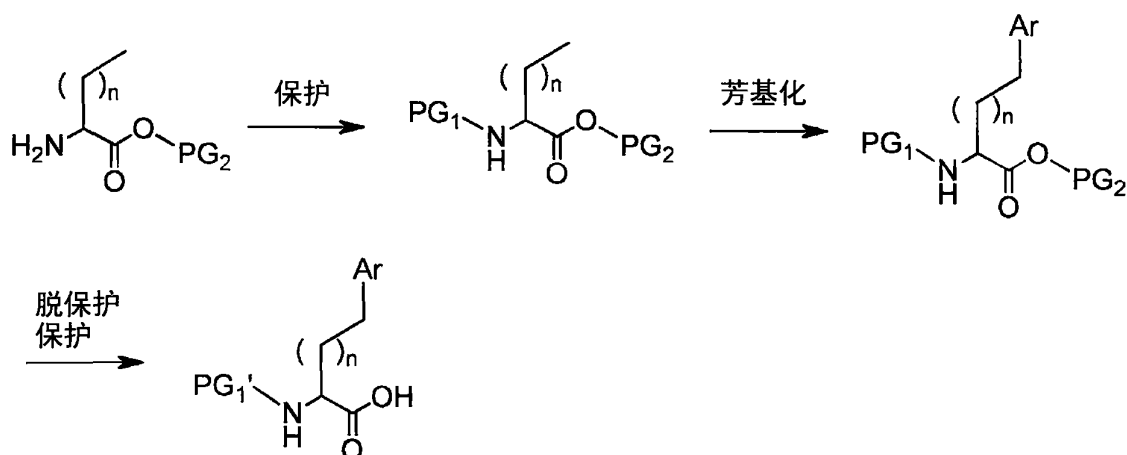


[3247] 可以按照以下简图来制备在氨基酸侧链引入有芳基或杂芳基(简图中,将这些基团称为“Ar”)并且在氨基酸的氮原子引入有 $-\text{CH}_2-\text{P}'$ 基团的非天然氨基酸。通过使N-羟基邻

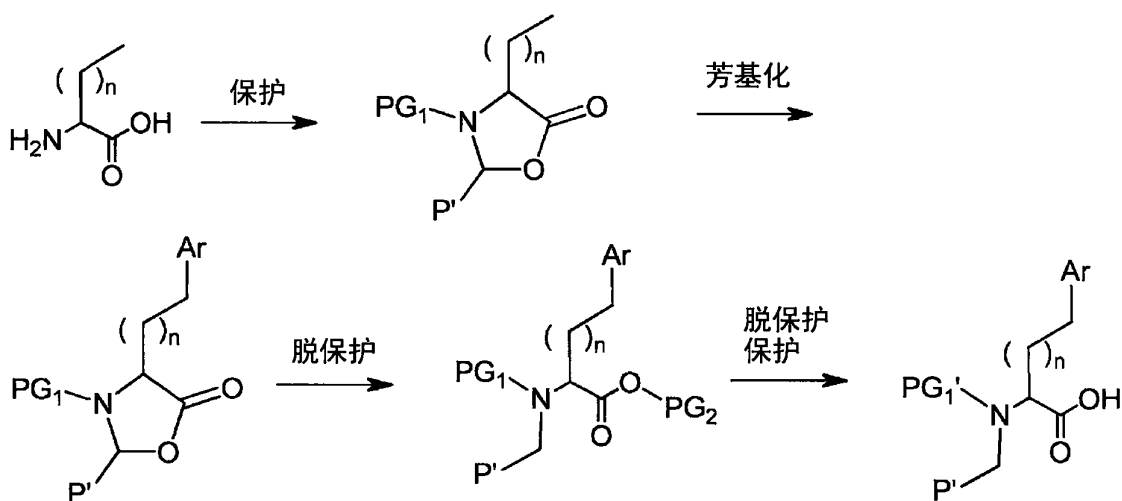
苯二甲酰亚胺 (NHPI) 作用于被环状保护基保护的氨基酸 ($n=1$ 或 2) 的羧基, 可以将NHPI基引入到侧链。按照Huihui等人的方法 (J. Am. Chem. Soc., 2016, 138 (15), 5016-5019) 使之与芳基卤或杂芳基卤发生反应, 由此引入芳基或杂芳基, 可以制备侧链具有芳烷基或杂芳烷基的被环状保护基保护的氨基酸。接着进行开环反应, 由此可以制备目标C末端游离的非天然氨基酸。



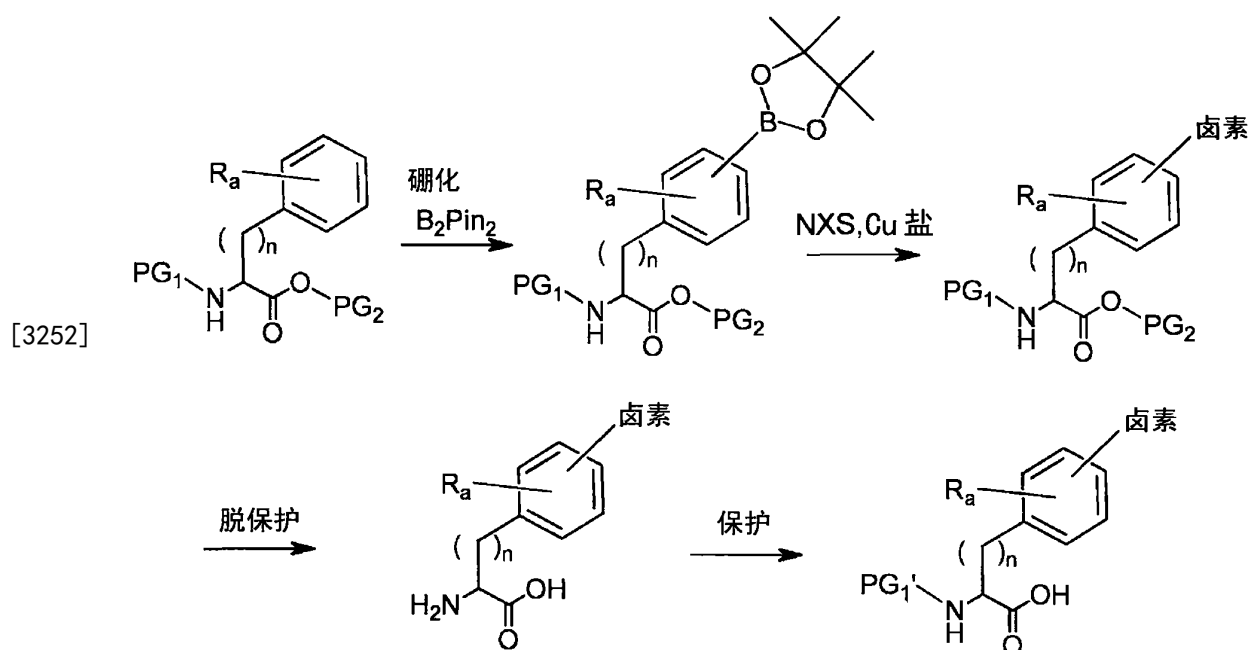
[3249] 可以按照以下简图来制备在氨基酸侧链引入有芳基或杂芳基 (简图中, 将这些基团称为“Ar”) 的非天然氨基酸。将保护基引入到市售的受保护的氨基 ($n=0$ 或 1) 后, 按照He等人的方法 (Org. Lett. 2014, 16 (24), 6488-6491) 使之与芳基卤或杂芳基卤发生反应, 由此引入芳基或杂芳基, 可以制备侧链具有芳烷基或杂芳烷基的非天然氨基酸。接着进行脱保护反应以及保护基引入反应, 由此可以制备目标C末端游离的非天然氨基酸。



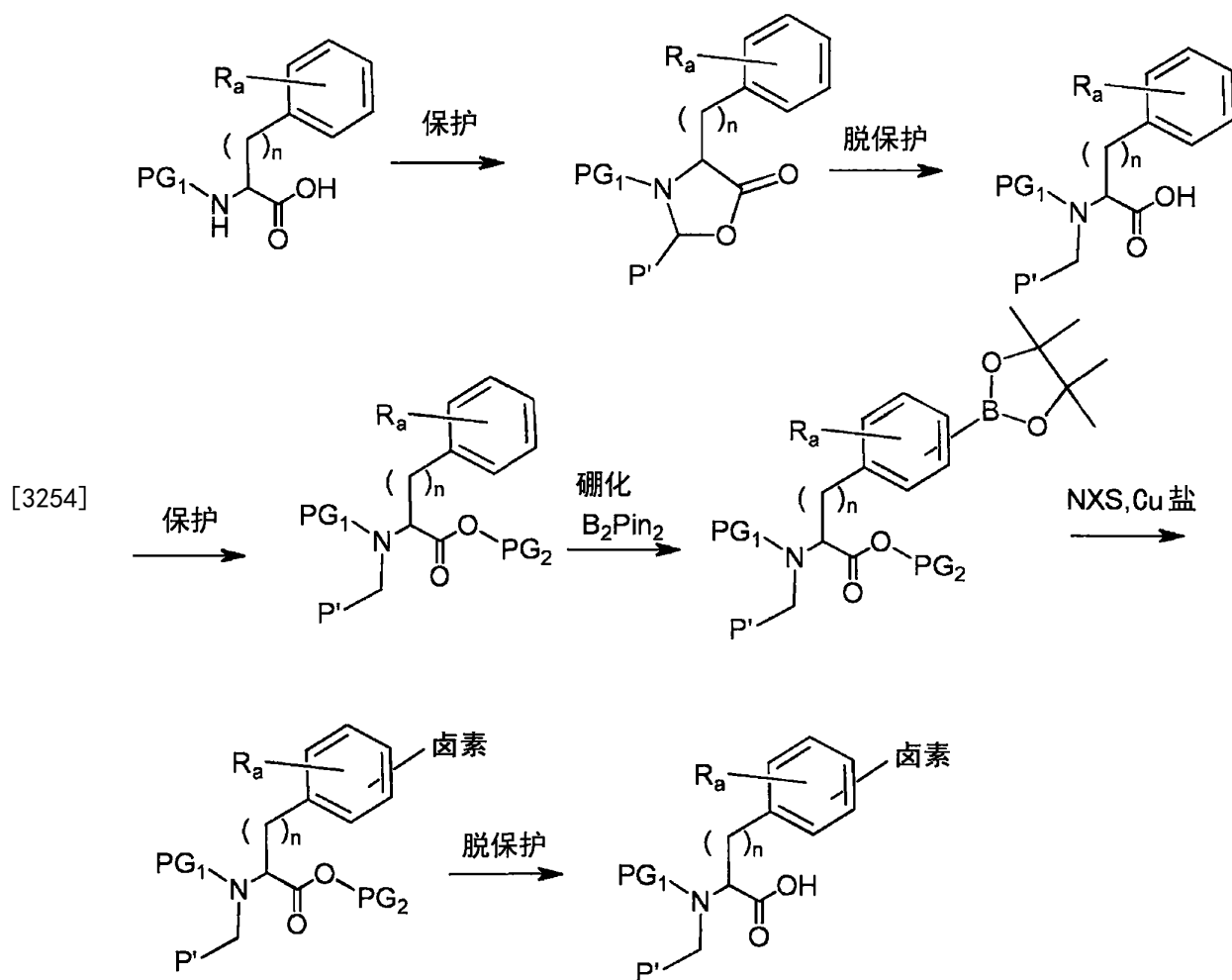
[3250]



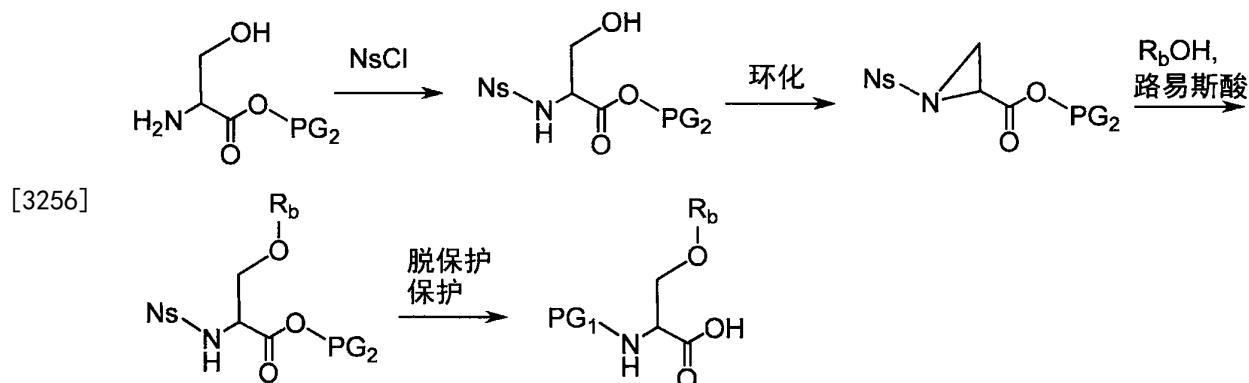
[3251] 可以按照以下简图来制备在氨基酸侧链的芳烷基引入有卤素原子的非天然氨基酸。可以根据Ishiyama等人的方法(J. Am. Chem. Soc. 2002, 124 (3), 390-391), 将硼酸酯引入到氨基酸侧链的可以具有取代基(R_a)的芳烷基(n=1至3)。对于被引入的硼基, 可以根据Lindner等人的方法(Chem. Eur. J., 2016, 22, 13218-13235)使用N-卤代琥珀酰亚胺引入卤素原子。对于此处得到的非天然氨基酸根据需要进行适当的保护基的脱附, 由此可以制备目标C末端游离的非天然氨基酸。



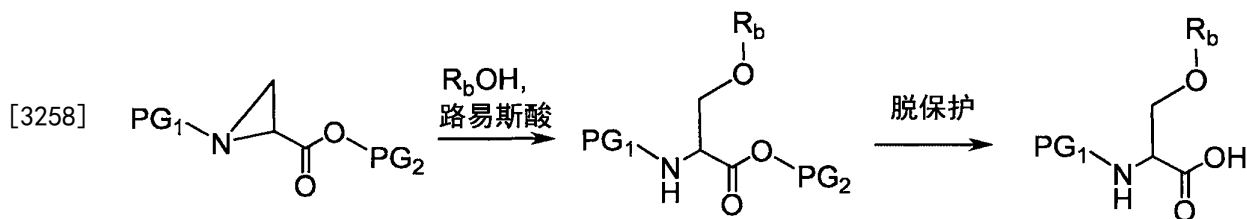
[3253] 可以按照以下简图来制备在氨基酸侧链的芳烷基引入有卤素原子并且在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的非天然氨基酸。可按照 Ishiyama 等人的方法 (J. Am. Chem. Soc. 2002, 124 (3), 390-391), 向具有芳烷基 ($n=1\sim3$) 的氨基酸的芳基引入硼酸酯, 所述芳烷基任选具有氨基酸侧链的取代基 (R_a)。对于被引入的硼基, 可以根据 Lindner 等人的方法 (Chem. Eur. J., 2016, 22, 13218-13235) 使用 N-卤代琥珀酰亚胺引入卤素原子。对于此处得到的非天然氨基酸根据需要进行适当的保护基的脱附, 由此可以制备目标 C 末端游离的非天然氨基酸。



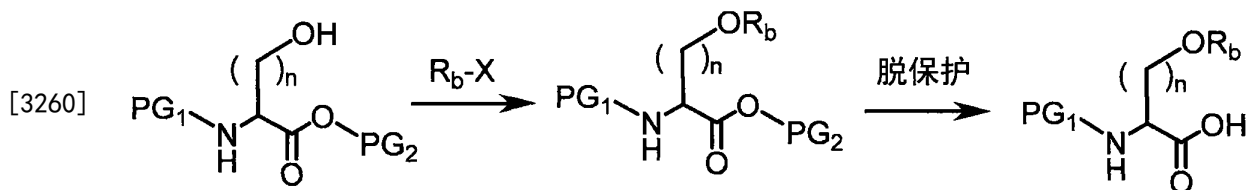
[3255] 可以根据以下简图来制备氨基酸的侧链具有任选被取代的烷氧基或芳烷氧基 (R_bO) 基的非天然氨基酸。通过常规方法将邻硝基苯磺酰 (Ns) 基引入到市售的丝氨酸衍生物之后,按照Mitsunobu等人的方法 (Synthesis, 1981, 1, 1-28) 可以得到环化物。在 $BF_3 \cdot OEt_2$ 等路易斯酸存在下利用适当的醇 (R_bOH) 使环化物开环,由此可以获得丝氨酸醚化合物。对于此处得到的非天然氨基酸根据需要进行适当的保护基的脱附,可以制备目标C末端游离的非天然氨基酸。



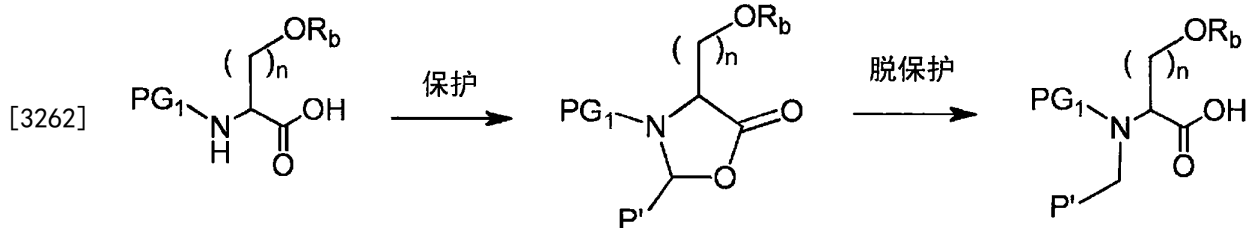
[3257] 可以根据以下简图来制备在氨基酸侧链具有任选被取代的烷氧基或芳烷氧基 (R_bO) 基的非天然氨基酸。通过常规方法在 $BF_3 \cdot OEt_2$ 等路易斯酸的存在下,利用适当的醇 (R_bOH) 使市售的环状化合物开环,由此可以获得丝氨酸醚化合物。对于此处得到的非天然氨基酸根据需要进行适当的保护基的脱附,可以制备目标C末端游离的非天然氨基酸。



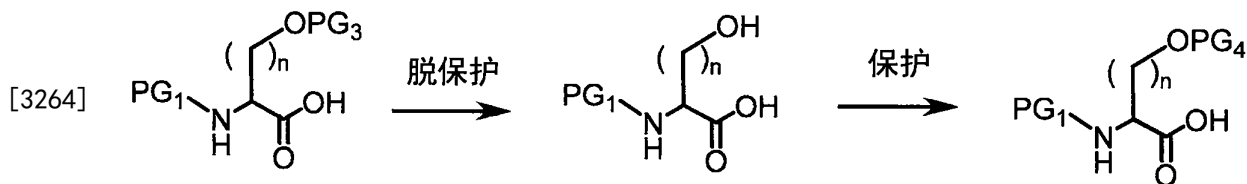
[3259] 可以根据以下简图来制备在氨基酸侧链具有任选被取代的烷氧基或芳烷氧基 ($-OR_b$) 基的非天然氨基酸。按照Williamson等人的方法 (Liebig's Ann.Chem.1851,77,37-49), 在合适的碱存在下, 使烷基化剂 (R_b-X) 作用于市售的丝氨酸衍生物 ($n=1$ 或 2), 可以获得丝氨酸醚化合物。当 R_b 具有进一步可转换的官能团时, 可以通过追加进行官能团转换而将 R_b 转换为目标官能团。作为追加的官能团转换可列举多重键的还原反应等。对于此处得到的非天然氨基酸接着进行脱保护反应, 由此可以制备目标C末端游离的非天然氨基酸。



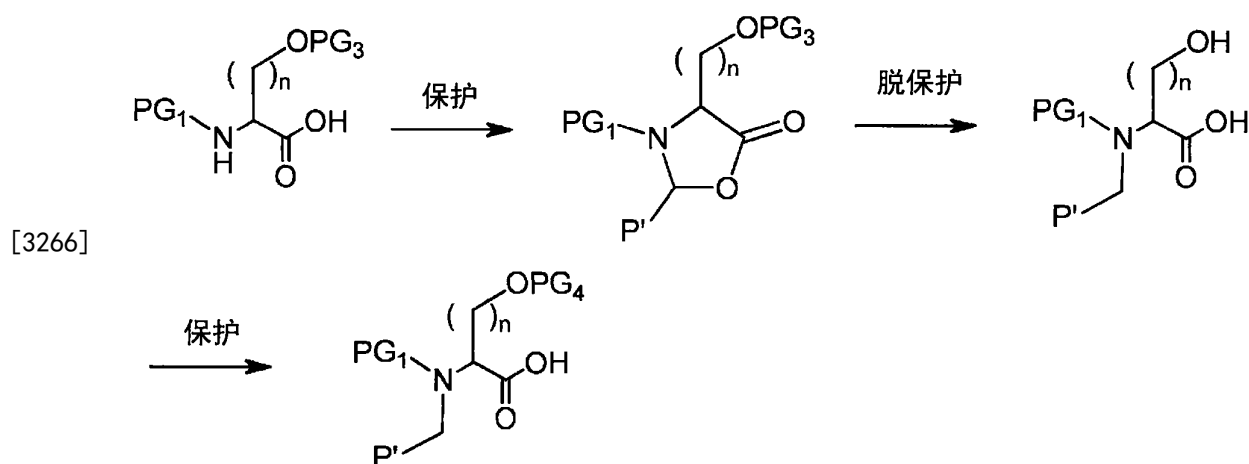
[3261] 可以根据以下简图来制备在氨基酸侧链具有任选被取代的烷氧基或芳烷氧基 ($-OR_b$) 基、且在氨基酸的氮原子引入有基团的非天然氨基酸。按照Freidinger等人的方法 (J.Org.Chem., 1983, 48 (1), 77-81) 使醛作用于市售的丝氨酸衍生物或用上述方法制备的丝氨酸衍生物 ($n=1$ 或 2), 由此可获得引入有环状保护基的噁唑烷酮化合物。接着, 进行开环反应, 由此可以制备目标C末端游离的非天然氨基酸。



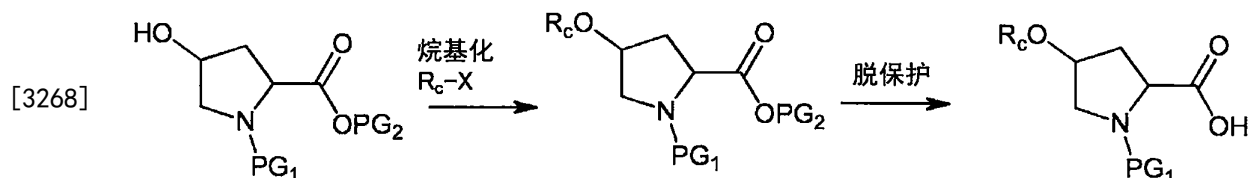
[3263] 可以按照以下简图来制备在氨基酸的侧链具有受保护的羟基的非天然氨基酸。可以对市售的丝氨酸衍生物或通过上述方法制备的丝氨酸衍生物 ($n=1$ 或 2) 进行适当的保护基的脱附反应来制备目标C末端游离的非天然氨基酸。



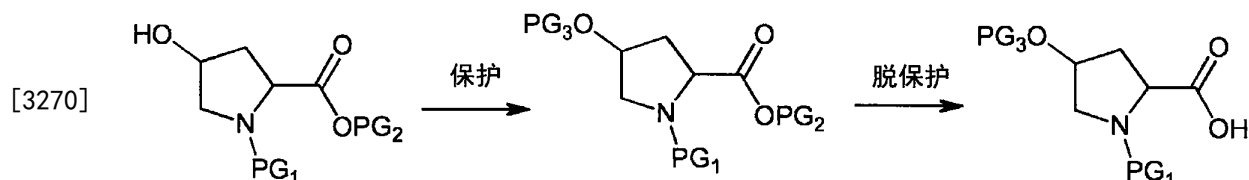
[3265] 可以按照以下简图来制备在氨基酸的侧链具有受保护的羟基且在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的非天然氨基酸。按照Freidinger等人的方法 (J.Org.Chem., 1983, 48 (1), 77-81) 使醛作用于市售的丝氨酸衍生物或通过上述方法 ($n=1$ 或 2) 制备的丝氨酸衍生物, 由此获得引入有环状保护基的噁唑烷酮化合物。接着, 进行开环反应和保护基引入反应, 由此可以制备目标C末端游离的非天然氨基酸。



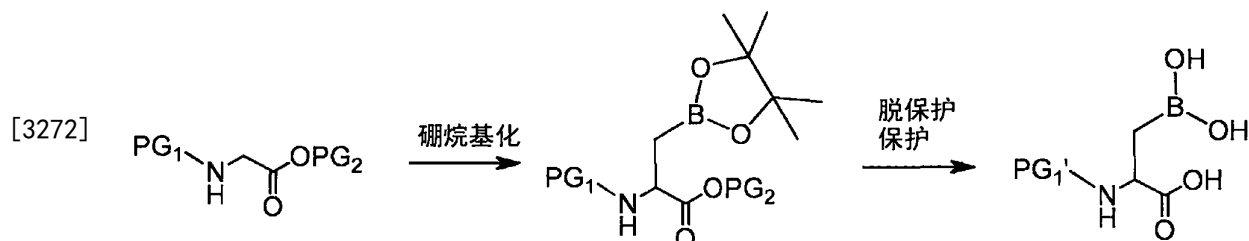
[3267] 可以按照以下简图来制备在环状氨基酸的羟基引入有取代基 (R_c) 的环状非天然氨基酸。通过对市售的环状氨基酸进行适当的官能团引入反应,可以转换为目标- OR_c 基。作为官能团的转换反应,按照Williamson的方法 (Liebig's Ann.Chem.1851,77,37-49) 在适当的碱的存在下,使之与烷基化剂 (R_c-X) 发生反应,由此可以生成醚键。当 R_c 具有进一步可转换的官能团时,可以通过追加进行官能团转换而将 R_c 转换为目标官能团。接着,进行脱保护反应,由此可以制备目标C末端游离的非天然氨基酸。



[3269] 可以按照以下简图来制备在环状氨基酸的羟基引入有保护基 (PG_3) 的环状非天然氨基酸。通过对市售的环状氨基酸进行适当的保护基的脱附反应,可以制备目标C末端游离的非天然氨基酸。



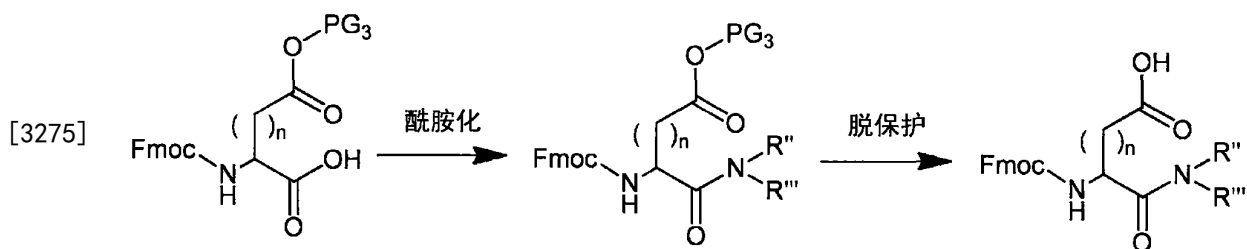
[3271] 可以按照以下简图来制备在氨基酸的侧链引入有硼酸的非天然氨基酸。按照Lee等人的方法 (Bioorg.Med.Chem.Lett., 2009,19 (17), 4887-5274) 使醛作用于市售的甘氨酸衍生物,由此可以获得引入有硼酸酯的非天然氨基酸。接着,进行适当的保护基的脱附反应,由此可以制备目标C末端游离的非天然氨基酸。



[3273] (侧链具有羧基的Fmoc非天然氨基酸的合成1)

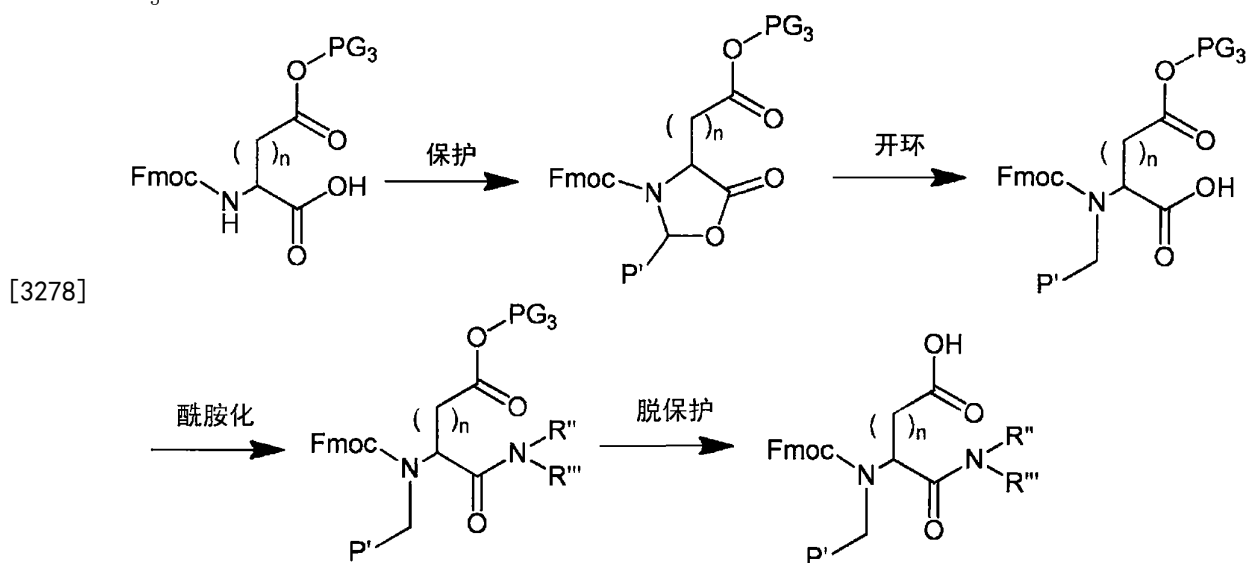
[3274] 可以按照以下简图来制备在侧链具有羧基的Fmoc非天然氨基酸。对于可从商业供应商获得、并且侧链的羧基被 PG_3 保护的起始原料 ($n=1$ 或 2) 的主链羧基而言,在DIC等缩合

剂存在下与胺 ($R''R'''NH$) 缩合, 由此可以转换为酰胺基。接着, 进行 PG_3 的脱保护反应, 由此可以制备作为目标的、侧链具有羧基的 Fmoc 非天然氨基酸。

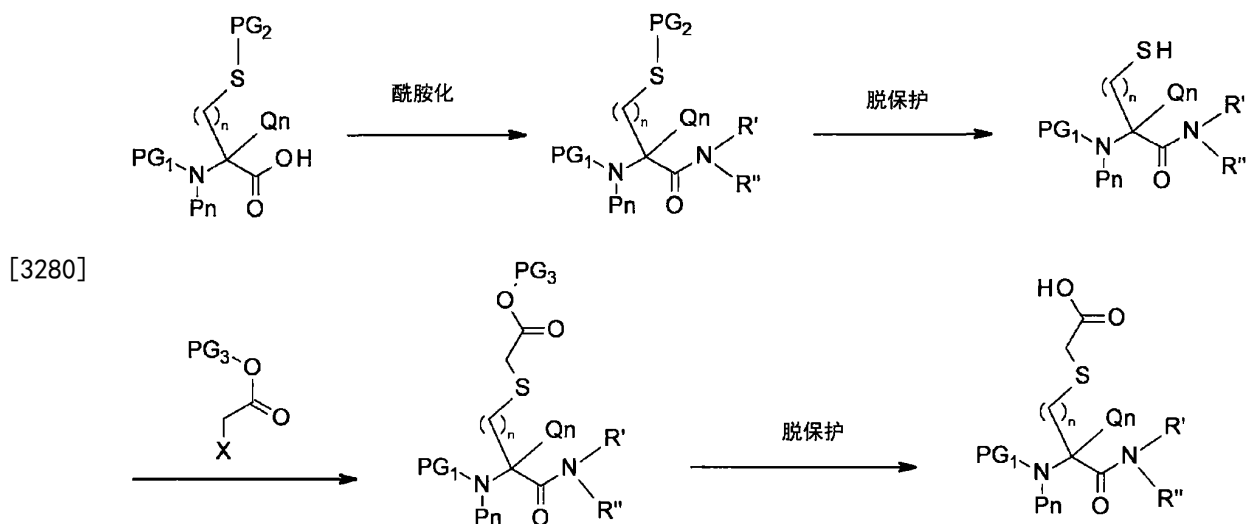


[3276] (侧链具有羧基的 Fmoc 非天然氨基酸的合成2)

[3277] 可以按照以下简图来制备在侧链具有羧基并且在氨基酸的氮原子引入有 $-CH_2-P'$ 基团的 Fmoc 非天然氨基酸。使可从商业供应商获得、并且侧链羧基被 PG_3 保护的起始原料 ($n=1$ 或 2) 的主链羧基在 DIC 等缩合剂存在下与胺 ($R''R'''NH$) 缩合, 由此可以转换为酰胺基。接着, 进行 PG_3 的脱保护反应, 由此可以制备作为目标的、侧链具有羧基的 Fmoc 非天然氨基酸。



[3279] 可以按照以下简图来制备在侧链含有硫醚基的非天然氨基酸 ($n=1$ 或 2)。对侧链硫醇基受保护的氨基酸进行羧酸的酰胺化, 硫醇基脱保护后, 与羧酸受保护的卤代乙酸进行反应, 形成硫醚键。接着进行侧链羧酸的脱保护, 由此可以制备侧链具有硫醚基的氨基酸。



[3281] 在肽主链含有硫醚基的肽可以使用上述在侧链具有硫醚基的氨基酸作为原料来制备,但作为其他方法也可以利用使N末端的溴乙酰胺与半胱氨酸的侧链进行反应的Roberts等人的方法(Tetrahedron Letters,1998,39,8357-8360)、或者利用使N末端的氯乙酰胺与半胱氨酸的侧链进行反应的Robey等人的方法(Journal of Peptide Research,2000,56,115-120)来制备。

[3282] 另外,本发明的化合物、其盐或它们的溶剂合物包括经过上述反应工序得到的目标化合物的所有立体异构体(例如,对映异构体、非对映异构体(包括顺式和反式几何异构体))、所述异构体的外消旋体、以及其他的混合物。例如,本发明的化合物可以具有一个以上的不对称点,本发明包括这些化合物的外消旋混合物、非对映异构体混合物以及对映异构体。

[3283] 在本发明的化合物以游离体的形式获得的情况下,该化合物可以按照常规方法转换为该化合物可形成的盐、或其水合物或者溶剂合物的状态。

[3284] 另外,在本发明的化合物以该化合物的盐、水合物或溶剂合物的形式获得的情况下,该化合物可以按照常规方法转换为其游离体。

[3285] <药物组合物>

[3286] 本发明提供一种含有本发明的环状肽化合物的药物组合物。

[3287] 对于本发明的药物组合物而言,除了本发明的环状肽化合物、环状肽化合物的盐或它们的溶剂合物之外,还可引入药学上可接受的载体,可通过公知方法来制剂化。制剂化中可以使用常用的赋形剂、粘合剂、润滑剂、着色剂、矫味剂,根据需要还可以使用稳定剂、乳化剂、吸收促进剂、表面活性剂、pH调节剂、防腐剂、抗氧化剂等,配合一般用作药物制剂原料的成分,按常规方法进行制剂化。

[3288] 例如,制备口服制剂则加入本发明的环状肽化合物或其盐、赋形剂,进而根据需要加入粘合剂、崩解剂、润滑剂、着色剂、矫味剂之后,按照常规方法制成粉剂、细粒剂、颗粒剂、片剂、包衣片剂、胶囊剂等。

[3289] 作为这些成分可以举出例如:大豆油、牛油、合成甘油酯等动植物油;液体石蜡、角鲨烷和固体石蜡等烃;肉豆蔻酸辛基十二烷基酯、肉豆蔻酸异丙酯等酯油;鲸蜡硬脂醇、二十二醇等高级醇;硅树脂;硅油;聚氧乙烯脂肪酸酯、山梨糖醇酐脂肪酸酯、甘油脂肪酸酯、聚氧乙烯山梨糖醇酐脂肪酸酯、聚氧乙烯氢化蓖麻油、聚氧乙烯-聚氧丙烯嵌段共聚物等表面活性剂;羟乙基纤维素、聚丙烯酸、羧基乙烯基聚合物、聚乙二醇、聚乙烯吡咯烷酮、甲基纤维素等水溶性高分子;乙醇、异丙醇等低级醇;甘油、丙二醇、二丙二醇、山梨糖醇等多元醇;葡萄糖、蔗糖等糖类;硅酸酐、硅酸镁铝、硅酸铝等无机粉体;纯净水等。

[3290] 作为赋形剂可以举出例如乳糖、玉米淀粉、白糖、葡萄糖、甘露醇、山梨糖醇、结晶纤维素、二氧化硅等。

[3291] 作为粘合剂可以举出例如聚乙烯醇、聚乙烯醚、甲基纤维素、乙基纤维素、阿拉伯胶、黄耆胶、明胶、紫胶、羟丙基甲基纤维素、羟丙基纤维素、聚乙烯吡咯烷酮、聚丙二醇-聚氧乙烯嵌段聚合物、葡甲胺等。

[3292] 作为崩解剂可以举出例如淀粉、琼脂、明胶粉、结晶纤维素、碳酸钙、碳酸氢钠、柠檬酸钙、糊精、果胶、羧甲基纤维素钙等。

[3293] 作为润滑剂可以举出例如硬脂酸镁、滑石、聚乙二醇、二氧化硅、氢化植物油等。

[3294] 作为着色剂可使用允许添加到药物中的物质,作为矫味剂可使用可可粉、薄荷脑、芳香散(empasm)、薄荷油、冰片、桂皮粉等。

[3295] 显然对这些片剂和颗粒剂可进行糖衣、其他根据需要的适当包衣。另外,当制备糖浆、注射用制剂等液态制剂时,在本发明的化合物或其药学上可接受的盐中添加pH调节剂、溶解剂、张度剂等并根据需要添加增溶剂、稳定剂等,使用常规方法进行制剂化。

[3296] 例如,药物组合物可以以与水或其他药学上可接受液体的无菌溶液或悬浮液剂的注射剂的形式非口服地使用。例如,与药学上可接受的载体或介质、具体而言与无菌水、生理盐水、植物油、乳化剂、悬浮剂、表面活性剂、稳定剂、调味剂、赋形剂、载剂(vehicles)、防腐剂、粘合剂等适当组合,而以一般认可的制剂所需的单位用量形态进行混合,由此进行制剂化。具体而言,作为载体可以举出轻质无水硅酸、乳糖、结晶纤维素、甘露醇、淀粉、羧甲基纤维素钙、羧甲基纤维素钠、羟丙基纤维素、羟丙基甲基纤维素、聚乙烯醇缩醛二乙基氨基乙酸酯、聚乙烯吡咯烷酮、明胶、中链脂肪酸甘油三酯、聚氧乙烯氢化蓖麻油60、白糖、羧甲基纤维素、玉米淀粉、无机盐类等。这些制剂中的有效分量被设为在指定范围内的适当的容量。

[3297] 用于注射的无菌组合物可以使用如注射用蒸馏水这样的载剂按照通常的配制方式进行处理。

[3298] 作为注射用的水溶液,可以举出例如:含有生理盐水、葡萄糖、例如D-山梨糖醇、D-甘露糖、D-甘露糖醇、氯化钠这样的其他辅助药的等渗液,并且可以与例如醇这样的适当的增溶剂、例如聚山梨酯80(注册商标)、HCO-50这样的非离子表面活性剂组合使用,上述醇具体而言为乙醇,例如丙二醇、聚乙二醇这样的多元醇。

[3299] 作为油性液体,可以举出芝麻油、大豆油,可以与作为增溶剂的苯甲酸苄酯、苯甲醇并用。另外,也可以与例如磷酸盐缓冲液、乙酸钠缓冲液这样的缓冲剂,例如盐酸普鲁卡因这样的无痛化剂,例如苯甲醇、苯酚这样的稳定剂,以及抗氧化剂配合。制备好的注射剂通常填充于适当的安瓿中。

[3300] 给药优选口服给药,但给药方法不限于口服给药。作为非口服给药,具体而言可以举出注射剂型、经鼻给药剂型、肺部给药剂型、经皮给药型等。作为注射剂型的例子,通过例如静脉内注射、肌肉内注射、腹腔内注射、皮下注射等可以全身或局部给药。

[3301] 另外,可以根据患者的年龄、症状来选择给药方法。作为利用本发明的方法制备的含有肽化合物的药物组合物的给药量,例如可以在每次、每kg体重0.0001mg至1000mg的范围内进行选择。或者,例如可以对每名患者在0.001至100000mg/人的范围内选择给药量,但不一定限于这些值。给药量、给药方法根据患者的体重、年龄、症状等而变化,但只要是本领域技术人员就能够适当地选择。

[3302] 在一个方式中,本发明的化合物可以用于抑制Kras和SOS之间的键合。

[3303] 在一个方式中,本发明的药物组合物可以用于治疗或预防对象的癌症。作为癌症,具体而言可举出胰腺癌。

[3304] 本说明书中“对象”包括哺乳动物,作为哺乳动物优选为人。

[3305] 需要说明的是,本说明书中引用的所有现有技术文献均作为参考并入本说明书中。

[3306] 实施例

[3307] 通过以下的实施例和参考例进一步说明本发明的内容,但本发明并不限于这些内容。所有起始物质和试剂均获自商业供应商或利用公知的方法合成。LC/MS的分析条件见表1。

[3308] [表1]

[3309]

分析条件	装置	柱 (I.D.x长度)(mm)	流动相	梯度(A/B)	流速 (mL/分钟)	柱温 (°C)	波长	备注
SQDAA05	Acquity UPLC/SQD 或 Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 10mM AcONH ₄ , 水 B) 甲醇	95/5 (初始) => 0/100 (1.0分钟) => 0/100 (0.4分钟)	1.0	35	210-400nm PDA 全部	
SQDFA05	Acquity UPLC/SQD 或 Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (1.0分钟) => 0/100 (0.4分钟)	1.0	35	210-400nm PDA 全部	
SQDAA50	Acquity UPLC/SQD 或 Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 10mM AcONH ₄ , 水 B) 甲醇	50/50 (初始) => 0/100 (0.7分钟) => 0/100 (0.7分钟)	1.0	35	210-400nm PDA 全部	
SQDFA50	Acquity UPLC/SQD 或 Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	50/50 (初始) => 0/100 (0.7分钟) => 0/100 (0.7分钟)	1.0	35	210-400nm PDA 全部	
SQDFA05long	Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (4.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部	
SQDFA3080	Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	70/30 (初始) => 20/80 (4.5分钟) => 0/100 (0.01分钟) => 0/100 (0.49分钟)	1.0 (初始-4.51分钟) 0.1 (4.51-5.00分钟)	35	210-400nm PDA 全部	
SQDFA30long50deg	Acquity UPLC/SQD2	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	70/30 (初始) => 0/100 (8.0分钟) => 0/100 (2.0分钟)	0.5	50	210-400nm PDA 全部	
SMDmethod 01	Shimadzu LCMS-2020	Kinetex EVO C18 (2.1x50)	A) 6.5mM NH ₄ HCO ₃ 水(pH=10) B) 乙腈	90/10 (初始) => 50/50 (3.8分钟) => 5/95 (0.4分钟) => 5/95 (0.4分钟)	1.0	35	190-400nm PDA 全部	
SMDmethod 02	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	60/40 (初始) => 5/95 (3.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部	

[3310]

SMDmethod_03	Nexera/2020	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (4.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部
SMDmethod_04	Nexera/2020	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (1.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部
SMDmethod_05	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 5/95 (2.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_06	Nexera/2020	Speed Core C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (1.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部
SMDmethod_07	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	50/50 (初始) => 5/95 (3.8分钟) => 5/95 (0.8分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_08	Shimadzu LCMS-2010EV	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	50/50 (初始) => 5/95 (2.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_09	Shimadzu LCMS-2010EV	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	50/50 (初始) => 5/95 (4.1分钟) => 5/95 (0.9分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_10	Shimadzu LCMS-2020	Gemini-NX 3u C18 110A (3.0x50)	A) 6.5mM NH ₄ HCO ₃ 水 (pH=10) B) 乙腈	70/30 (初始) => 20/80 (4.0分钟) => 5/95 (0.5分钟) => 5/95 (0.5分钟)	1.2	45	190-400nm PDA 全部
SMDmethod_11	Shimadzu LCMS-2020	Phenomenex kinetex C18 (3.0x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	90/10 (初始) => 5/95 (2.0分钟) => 5/95 (0.7分钟)	1.5	40	190-400nm PDA 全部
SMDmethod_12	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 5/95 (3.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部

[3311]

SMDmethod_13	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	50/50 (初始) => 5/95 (2.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_14	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	70/30 (初始) => 20/80 (3.8分钟) => 0/100 (0.3分钟) => 0/100 (0.5分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_15	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 0/100 (1.1分钟) => 0/100 (0.6分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_16	Shimadzu LCMS-2020	Accucore C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	90/10 (初始) => 0/100 (1.1分钟) => 0/100 (0.5分钟)	1.0	40	190-400nm PDA 全部
SMDmethod_17	Shimadzu LCMS-2020	Ascentis Express C18 (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 5/95 (2.7分钟) => 5/95 (1.0分钟)	1.0	40	190-400nm PDA 全部
SMDmethod_18	Shimadzu LCMS-2020	CORTECS C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (1.0分钟) => 0/100 (0.5分钟)	1.0	40	190-400nm PDA 全部
SMDmethod_19	Shimadzu LCMS-2020	ACQUITY BEH C18 (2.1x50)	A) 0.15% FA, 水 B) 0.15% FA, 乙腈	90/10 (初始) => 30/70 (3.6分钟) => 30/70 (1.0分钟)	0.7	45	190-600nm PDA 全部
SMDmethod_20	Shimadzu LCMS-2020	Ascentis Express C18 (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 5/95 (1.1分钟) => 5/95 (0.5分钟)	1.0	40	190-400nm PDA 全部
SMDmethod_21	Shimadzu LCMS-2010EV	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 5/95 (2.0分钟) => 5/95 (0.7分钟)	1.2	40	190-400nm PDA 全部
SMDmethod_22	Shimadzu LCMS-2020	ACQUITY BEH C18 (2.1x50)	A) 0.1% FA, 水 B) 0.05% FA, 乙腈	95/5 (初始) => 20/80 (4分钟) => 20/80 (1.2分钟)	0.7	45	190-800nm PDA 全部

[3312]

SMDmethod_23	Shimadzu LCMS-2020	Shim-Pack XR-ODS (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 0/100 (1.2分钟) => 0/100 (1分钟)	1.0	40	190-400nm PDA 全部
SSC-AA-20	Nexera UC/2020	Ascentis Express C18 (2.1x50)	A) 10mM AcONH ₄ , 水 B) 甲醇/1M AcONH ₄ , 水 = 100/1	95/5 (初始) => 0/100 (1.75分钟) => 0/100 (1.25分钟)	1.0	35	210-400nm PDA 全部
SSC-AF-00	Nexera UC/2020	Ascentis Express C18 (2.1x50)	A) 10mM NH ₄ HCO ₂ , 水 B) 甲醇	95/5 (初始) => 0/100 (1.75分钟) => 0/100 (1.25分钟)	1.0	35	210-400nm PDA 全部
SSC-FA-03	Nexera UC/2020	XSelect CSH C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (1.75分钟) => 0/100 (1.25分钟)	1.0	35	210-400nm PDA 全部
SSC-TFA-07	Nexera UC/2020	Ascentis Express C18 (2.1x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 0/100 (1.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部
SSC-A-AF-01	Nexera UC/2020	Ascentis Express C18 (2.1x50)	A) 10mM NH ₄ HCO ₂ , 水 B) 甲醇	70/30 (初始) => 0/100 (8.75分钟) => 0/100 (1.25分钟)	0.5	50	210-400nm PDA 全部 环路式注入
SSC-A-AF-02	Nexera UC/2020	Ascentis Express C18 (2.1x50)	A) 10mM NH ₄ HCO ₂ , 水 B) 甲醇	70/30 (初始) => 0/100 (8.75分钟) => 0/100 (1.25分钟)	0.5	50	210-400nm PDA 全部 全量注入
SSC-A-FA-01	Nexera UC/2020	XSelect CSH C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	70/30 (初始) => 10/90 (7.5分钟) => 0/100 (0.01分钟) => 0/100 (2.49分钟)	0.5	50	210-400nm PDA 全部 环路式注入
SSC-A-FA-02	Nexera UC/2020	XSelect CSH C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	70/30 (初始) => 10/90 (7.5分钟) => 0/100 (0.01分钟) => 0/100 (2.49分钟)	0.5	50	210-400nm PDA 全部 全量注入

[3313]

S0DFA05 ong	Acquity UPLC/S002	Ascentis Express C18 (2.1x50)	A) 0.1% FA, 水 B) 0.1% FA, 乙腈	95/5 (初始) => 0/100 (4.5分钟) => 0/100 (0.5分钟)	1.0	35	210-400nm PDA 全部	
SMDmethod_30	Shimadzu LCMS-2020	Halo C18 (3.0x30)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 0/100 (0.7分钟) => 0/100 (0.4分钟)	1.2	45	190-400nm PDA 全部	
SMDmethod_31	Shimadzu LCMS-2020	Ascentis Express C18 (3.0x50)	A) 0.05% TFA, 水 B) 0.05% TFA, 乙腈	95/5 (初始) => 0/100 (2.0分钟) => 0/100 (0.7分钟)	1.5	40	190-400nm PDA 全部	

[3314] 实施例1 肽化合物的固相合成

[3315] 根据W02013/100132或W02018/225864记载的基于Fmoc法的肽合成方法,通过以下

基本路线(也称为基本肽合成方法)进行肽的延伸。即以下5个步骤工序:

[3316] 1) 将Asp侧链的羧酸或肽主链羧酸担载于2-氯三苯甲酯树脂的产物的、从氨基酸的N末端基于Fmoc法的肽延伸反应;

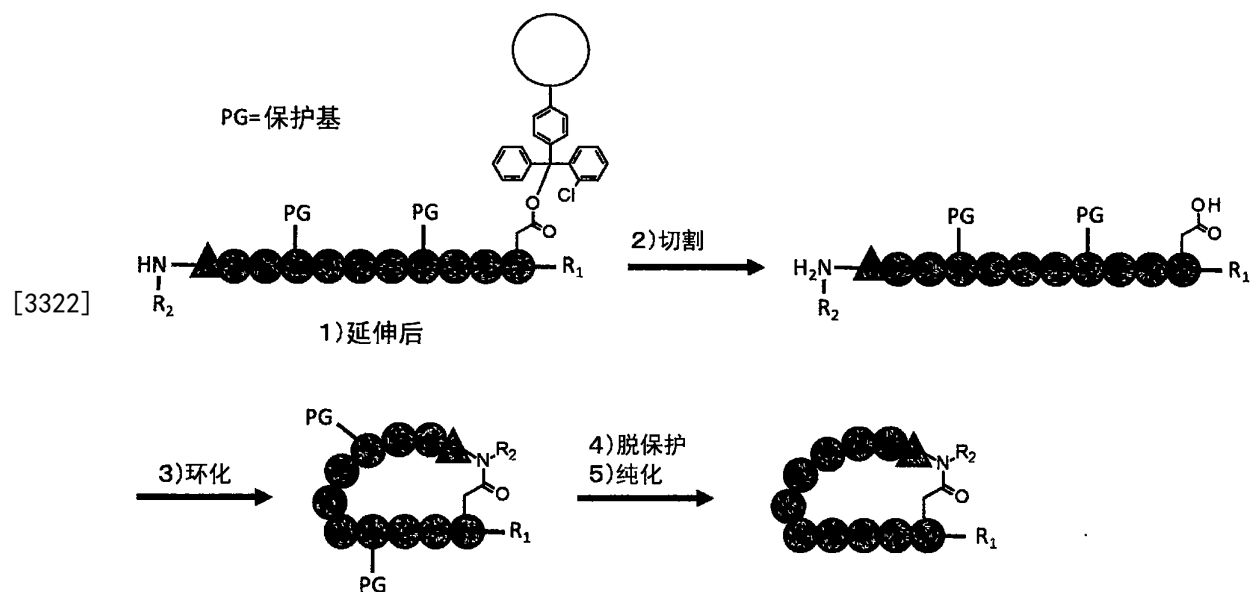
[3317] 2) 从2-氯三苯甲酯树脂的肽的切割过程;

[3318] 3) 基于由切割过程从2-氯三苯甲酯树脂脱落而产生的Asp侧链的羧酸或肽主链羧酸与肽链N末端(三角形单元)的氨基之间的缩合的酰胺环化;

[3319] 4) 根据需要对肽链中所含的侧链官能团的保护基的脱保护;

[3320] 5) 利用制备型HPLC的化合物的纯化。

[3321] 在本实施例中,除非特别说明,肽化合物基于该基本路线进行合成。



[3323] 1-1. 在利用肽合成仪的肽合成中使用的Fmoc-氨基酸

[3324] 在本说明书中记载的肽合成中,在利用肽合成仪的肽合成中使用了表2~表5中记载的Fmoc-氨基酸。

[3325] 表2中记载的Fmoc-氨基酸根据W02013/100132或W02018/225864记载的方法进行合成。

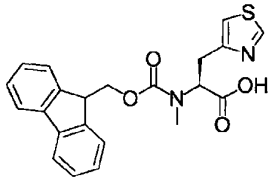
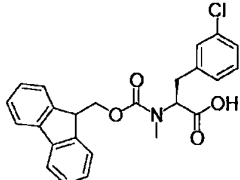
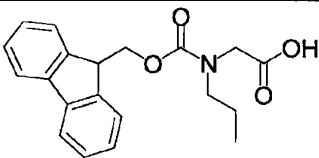
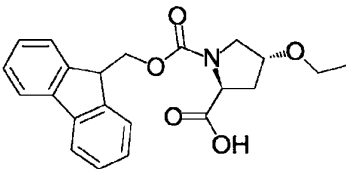
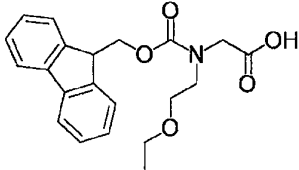
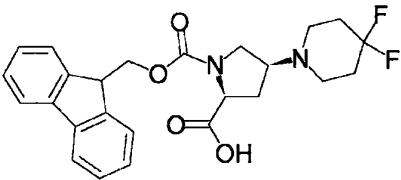
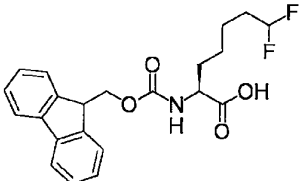
[3326] 表3中记载的Fmoc-氨基酸购自商业供应商或根据W02018/225864记载的方法进行合成。

[3327] 表4中记载的Fmoc-氨基酸购自商业供应商。

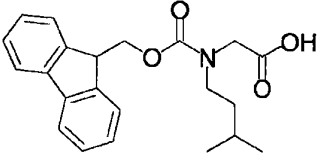
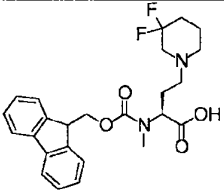
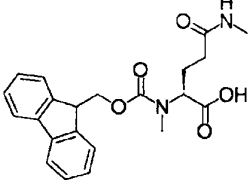
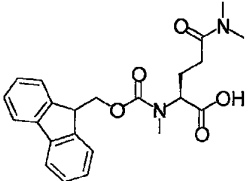
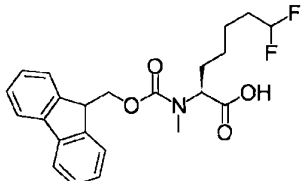
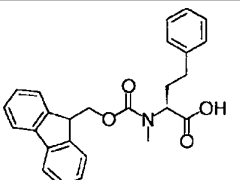
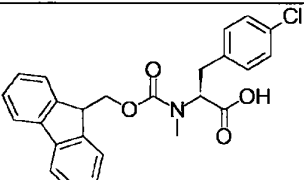
[3328] 表5中记载的Fmoc-氨基酸按照以下所示的简图进行合成。

[3329] [表2]

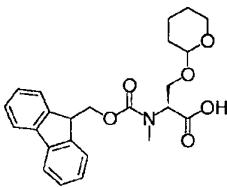
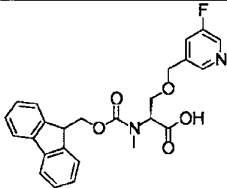
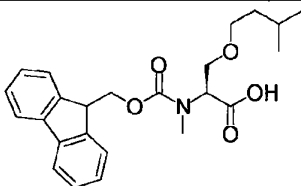
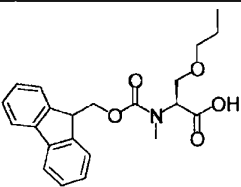
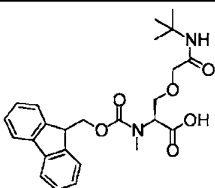
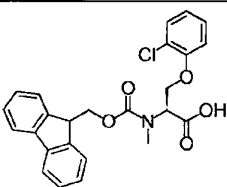
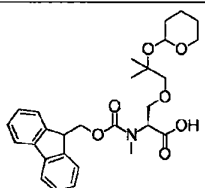
[3330]

简称	结构式	名称
Fmoc-MeAla(4-Thz)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(1,3-噻唑-4-基)丙酸
Fmoc-MePhe(3-Cl)-OH		(2S)-3-(3-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
Fmoc-nPrGly-OH		2-[9H-芴-9-基甲氧基羰基(丙基)氨基]乙酸
Fmoc-Hyp(Et)-OH		(2S, 4R)-4-乙氧基-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-甲酸
Fmoc-(EtOEt)NGly-OH		2-[2-乙氧基乙基(9H-芴-9-基甲氧基羰基)氨基]乙酸
Fmoc-cisPro(pip-4-F2)-OH		(2S, 4S)-4-(4,4-二氟哌啶-1-基)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-甲酸
Fmoc-Hnl(7-F2)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-7,7-二氟庚酸

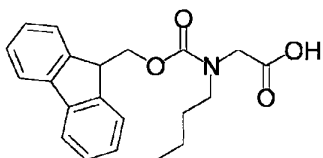
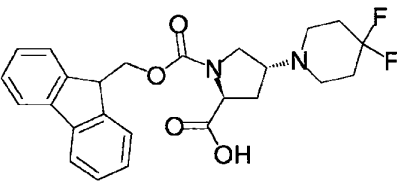
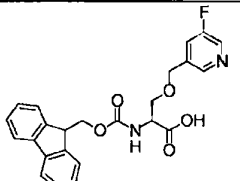
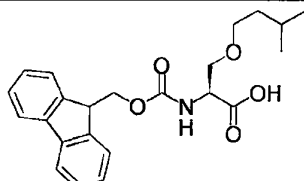
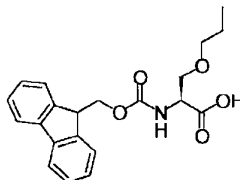
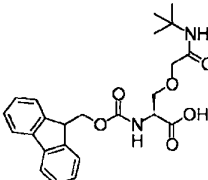
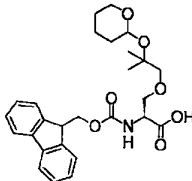
[3331]

Fmoc-iPenGly-OH		2-[9H-芴-9-基甲氧基羰基(3-甲基丁基)氨基]乙酸
Fmoc-MeAbu(pip-3-F2)-OH		(2S)-4-(3,3-二氟哌啶-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸
Fmoc-MeGln(Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-(甲基氨基)-5-氧代戊酸
Fmoc-MeGln(Me2)-OH		(2S)-5-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-氧代戊酸
Fmoc-MeHnl(7-F2)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-7,7-二氟庚酸
Fmoc-MeHph-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-苯基丁酸
Fmoc-MePhe(4-Cl)-OH		(2S)-3-(4-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸

[3332]

Fmoc-MeSer(THP)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(氧杂环己烷-2-基氧基)丙酸
Fmoc-MeSer(3-F-5-Me-Pyr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[(5-氟吡啶-3-基)甲氧基]丙酸
Fmoc-MeSer(iPen)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲基丁氧基)丙酸
Fmoc-MeSer(nPr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-丙氧基丙酸
Fmoc-MeSer(NtBu-Aca)-OH		(2S)-3-[2-(叔丁基氨基)-2-氧代乙氧基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
Fmoc-MeSer(Ph-2-Cl)-OH		(2S)-3-(2-氯苯氧基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
Fmoc-MeSer(tBuOTHP)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-甲基-2-(氧杂环己烷-2-基氧基)丙氧基]丙酸

[3333]

Fmoc-nBuGly-OH		2-[丁基(9H-芴-9-基甲氧基羰基)氨基]乙酸
Fmoc-Pro(4-pip-4-F2)-OH		(2S, 4R)-4-(4,4-二氟哌啶-1-基)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-甲酸
Fmoc-Ser(3-F-5-Me-Pyr)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[(5-氟吡啶-3-基)甲氧基]丙酸
Fmoc-Ser(iPen)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-甲基丁氧基)丙酸
Fmoc-Ser(nPr)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-丙氧基丙酸
Fmoc-Ser(NtBu-Aca)-OH		(2S)-3-[2-(叔丁基氨基)-2-氧代乙氧基]-2-(9H-芴-9-基甲氧基羰基氨基)丙酸
Fmoc-Ser(tBuOTHP)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[2-甲基-2-(氧杂环己烷-2-基氧基)丙氧基]丙酸

[3334]

Fmoc-Thr(THP)-OH		(2S, 3R)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(氧杂环己烷-2-基氧基)丁酸
Fmoc-Ser(THP)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(氧杂环己烷-2-基氧基)丙酸
Fmoc-Tyr(3-F,tBu)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[3-氟-4-[(2-甲基丙烷-2-基)氧基]苯基]丙酸

[3335]

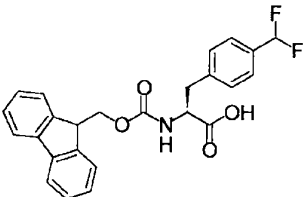
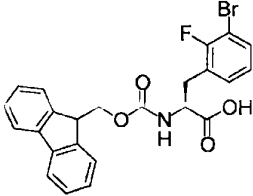
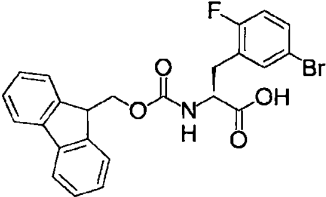
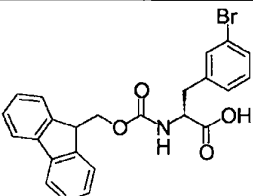
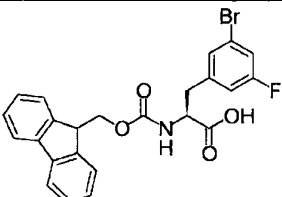
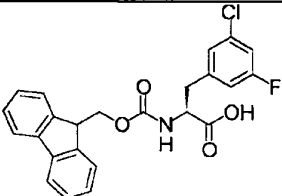
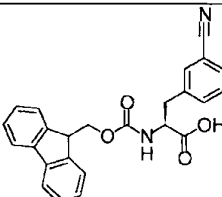
[表3]

简称	结构式	名称
Fmoc-Hph(3-Cl)-OH		(2S)-4-(3-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丁酸
Fmoc-Hph(4-Cl)-OH		(2S)-4-(4-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丁酸

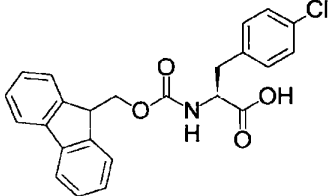
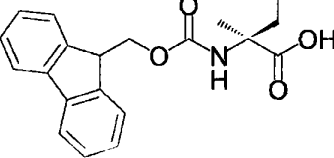
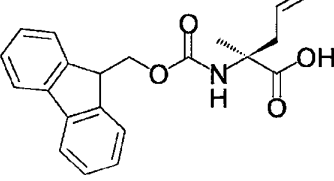
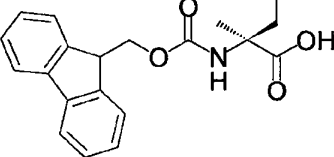
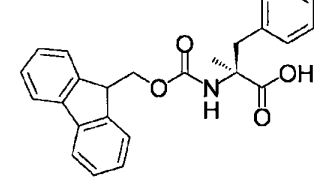
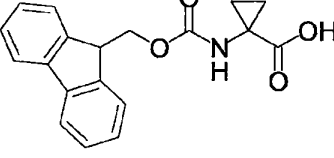
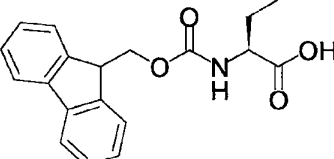
[3337]

[表4]

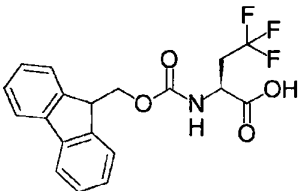
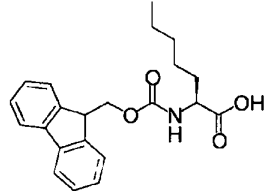
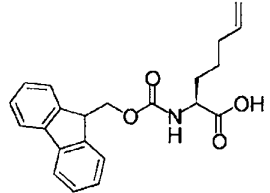
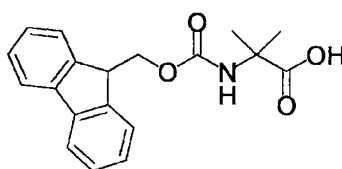
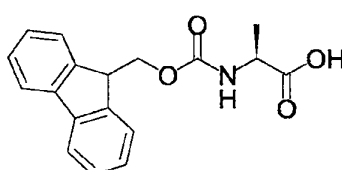
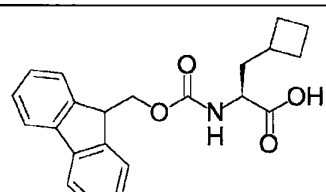
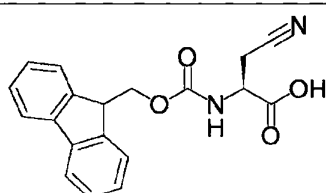
[3338]

简称	结构式	名称	CAS编号
Fmoc-Phe(4-CHF ₂)-OH		(2S)-3-[4-(二氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	1808268-08-7
Fmoc-Phe(2-F-3-Br)-OH		(2S)-3-(3-溴-2-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	2015410-80-5
Fmoc-Phe(2-F-5-Br)-OH		(2S)-3-(5-溴-2-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	1998646-62-0
Fmoc-Phe(3-Br)-OH		(2S)-3-(3-溴苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	220497-48-3
Fmoc-Phe(3-Br-5-F)-OH		(2S)-3-(3-溴-5-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	1998639-82-9
Fmoc-Phe(3-Cl-5-F)-OH		(2S)-3-(3-氯-5-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	1998650-51-3
Fmoc-Phe(3-CN)-OH		(2S)-3-(3-氰基苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	205526-36-9

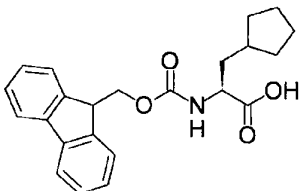
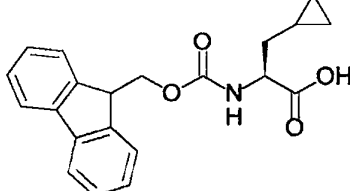
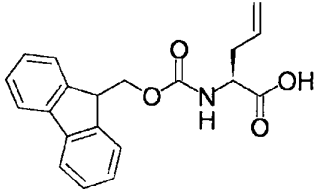
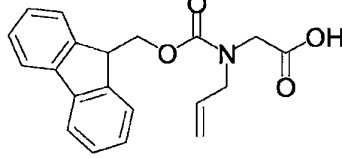
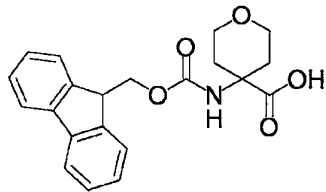
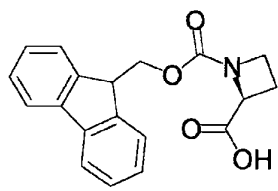
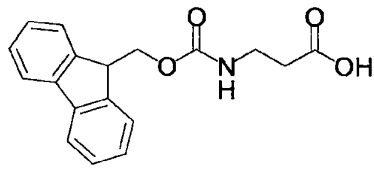
[3339]

Fmoc-Phe(4-Cl)-OH		(2S)-3-(4-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	175453-08-4
Fmoc-(Me)Abu-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-2-甲基丁酸	857478-30-9
Fmoc-(Me)Algly-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-2-甲基戊-4-烯酸	288617-71-0
Fmoc-(Me)Leu-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-2,4-二甲基戊酸	312624-65-0
Fmoc-(Me)Phe-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-2-甲基-3-苯基丙酸	135944-05-7
Fmoc-1-ACPrC-OH		1-(9H-芴-9-基甲氧基羰基氨基)环丙烷-1-甲酸	126705-22-4
Fmoc-Abu-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)丁酸	135112-27-5

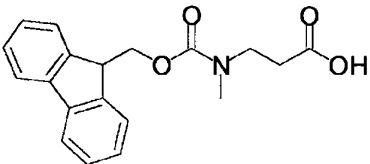
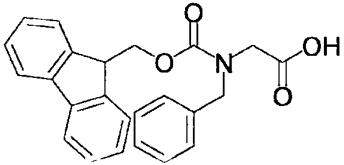
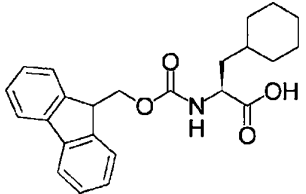
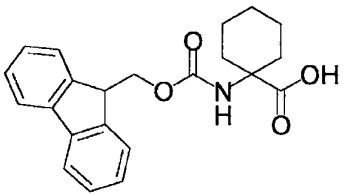
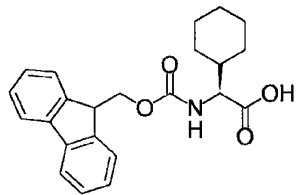
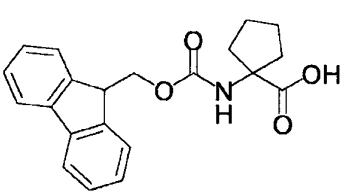
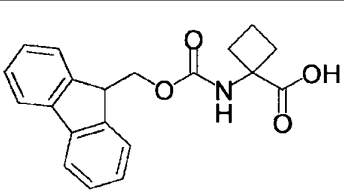
[3340]

Fmoc-Abu(4-F3)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4,4,4-三氟丁酸	181128-48-3
Fmoc-Ahp(2)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)庚酸	1197020-22-6
Fmoc-Ahpe(2)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)庚-6-烯酸	856412-22-1
Fmoc-Aib-OH		2-(9H-芴-9-基甲氧基羰基氨基)-2-甲基丙酸	94744-50-0
Fmoc-Ala-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	35661-39-3
Fmoc-Ala(cBu)-OH		(2S)-3-环丁基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	478183-62-9
Fmoc-Ala(CN)-OH		(2S)-3-氰基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	127273-06-7

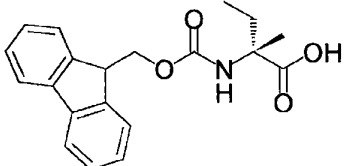
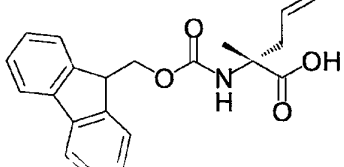
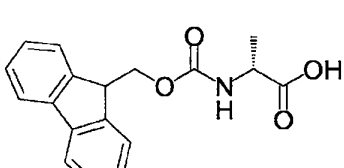
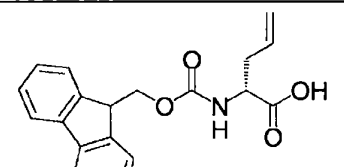
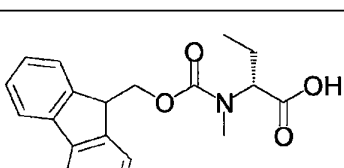
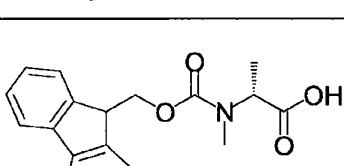
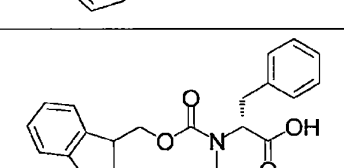
[3341]

Fmoc-Ala(cPent)-OH		(2S)-3-环戊基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	371770-32-0
Fmoc-Ala(cPr)-OH		(2S)-3-环丙基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	214750-76-2
Fmoc-Algly-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)戊-4-烯酸	146549-21-5
Fmoc-AllylGly-OH		2-[9H-芴-9-基甲氧基羰基(丙-2-烯基)氨基]乙酸	222725-35-1
Fmoc-Athpc-OH		4-(9H-芴-9-基甲氧基羰基氨基)氧杂环己烷-4-甲酸	285996-72-7
Fmoc-Aze(2)-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)氮杂环丁烷-2-甲酸	136552-06-2
Fmoc-bAla-OH		3-(9H-芴-9-基甲氧基羰基氨基)丙酸	35737-10-1

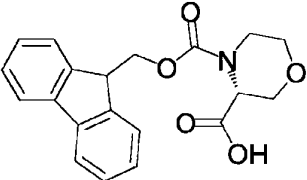
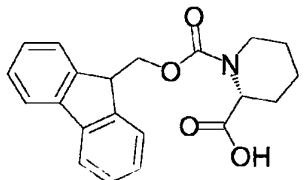
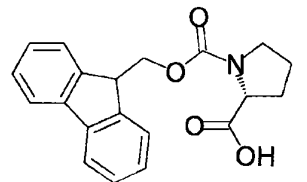
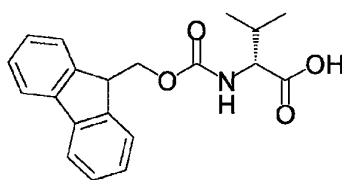
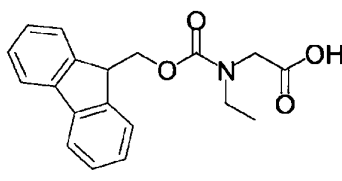
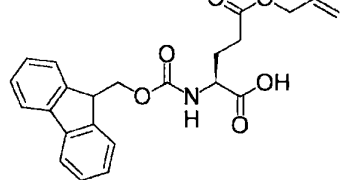
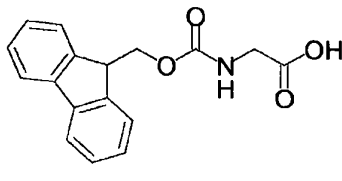
[3342]

Fmoc-bMeAla-OH		3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸	172965-84-3
Fmoc-BnGly-OH		2-[芴基(9H-芴-9-基甲氧基羰基)氨基]乙酸	141743-13-7
Fmoc-Cha-OH		(2S)-3-环己基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	135673-97-1
Fmoc-cHex-OH		1-(9H-芴-9-基甲氧基羰基氨基)环己烷-1-甲酸	162648-54-6
Fmoc-Chg-OH		(2S)-2-环己基-2-(9H-芴-9-基甲氧基羰基氨基)乙酸	161321-36-4
Fmoc-cLeu-OH		1-(9H-芴-9-基甲氧基羰基氨基)环戊烷-1-甲酸	117322-30-2
Fmoc-cVal-OH		1-(9H-芴-9-基甲氧基羰基氨基)环丁烷-1-甲酸	885951-77-9

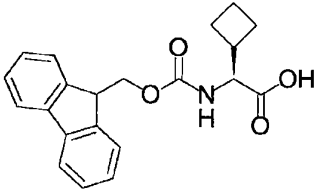
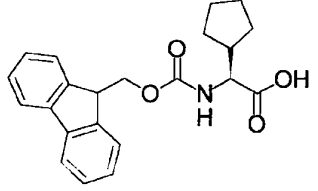
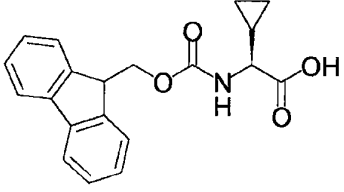
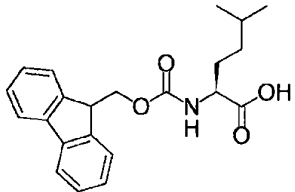
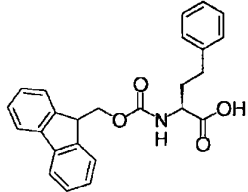
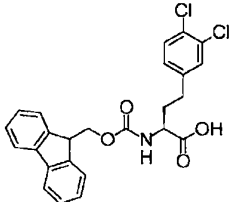
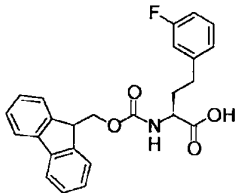
[3343]

Fmoc-D-(Me)Abu-OH		(2R)-2-(9H-芴-9-基甲氧基羧基氨基)-2-甲基丁酸	1231709-22-0
Fmoc-D-(Me)Algly-OH		(2R)-2-(9H-芴-9-基甲氧基羧基氨基)-2-甲基戊-4-烯酸	288617-76-5
Fmoc-D-Ala-OH		(2R)-2-(9H-芴-9-基甲氧基羧基氨基)丙酸	79990-15-1
Fmoc-D-Algly-OH		(2R)-2-(9H-芴-9-基甲氧基羧基氨基)戊-4-烯酸	170642-28-1
Fmoc-D-MeAbu-OH		(2R)-2-[9H-芴-9-基甲氧基羧基(甲基)氨基]丁酸	1210830-60-6
Fmoc-D-MeAla-OH		(2R)-2-[9H-芴-9-基甲氧基羧基(甲基)氨基]丙酸	138774-92-2
Fmoc-D-MePhe-OH		(2R)-2-[9H-芴-9-基甲氧基羧基(甲基)氨基]-3-苯基丙酸	138775-05-0

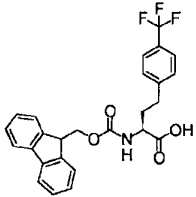
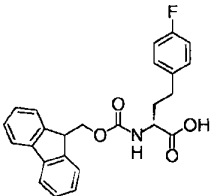
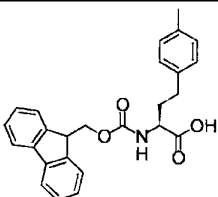
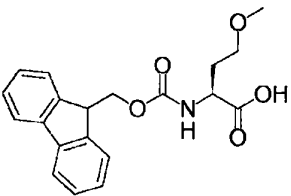
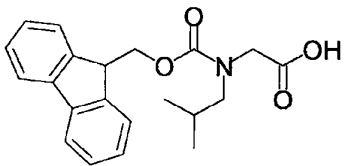
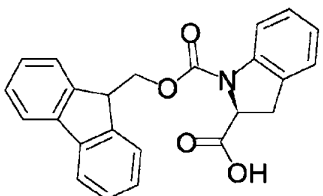
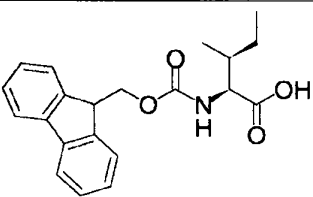
[3344]

Fmoc-D-Mor(3)-OH		(3R)-4-(9H-芴-9-基甲氧基羰基)吗啉-3-甲酸	942153-03-9
Fmoc-D-Pic(2)-OH		(2R)-1-(9H-芴-9-基甲氧基羰基)哌啶-2-甲酸	101555-63-9
Fmoc-D-Pro-OH		(2R)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-甲酸	101555-62-8
Fmoc-D-Val-OH		(2R)-2-(9H-芴-9-基甲氧基羰基氨基)-3-甲基丁酸	84624-17-9
Fmoc-EtGly-OH		2-[乙基(9H-芴-9-基甲氧基羰基)氨基]乙酸	162545-29-1
Fmoc-Glu(OAl)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-5-氧代-5-丙-2-烯氧基戊酸	133464-46-7
Fmoc-Gly-OH		2-(9H-芴-9-基甲氧基羰基氨基)乙酸	29022-11-5

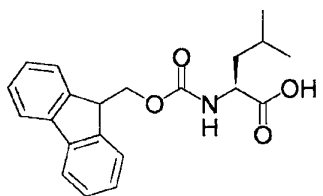
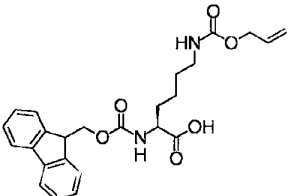
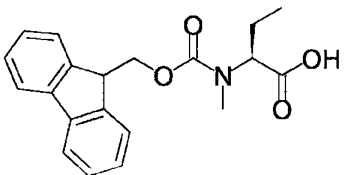
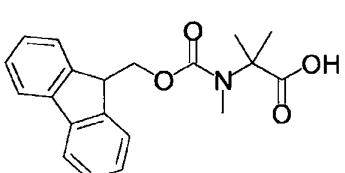
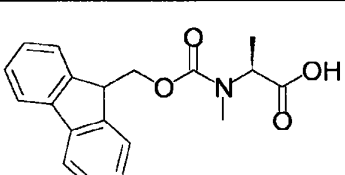
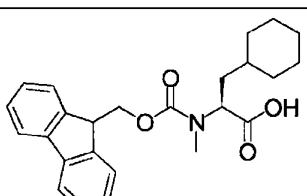
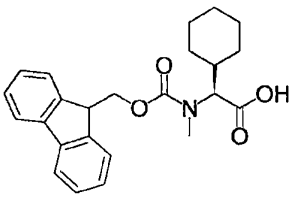
[3345]

Fmoc-Gly(cBu)-OH		(2S)-2-环丁基-2-(9H-芴-9-基甲氧基羰基氨基)乙酸	1391630-31-1
Fmoc-Gly(cPent)-OH		(2S)-2-环戊基-2-(9H-芴-9-基甲氧基羰基氨基)乙酸	220497-61-0
Fmoc-Gly(cPr)-OH		(2S)-2-环丙基-2-(9H-芴-9-基甲氧基羰基氨基)乙酸	1212257-18-5
Fmoc-Hle-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸	180414-94-2
Fmoc-Hph-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-苯基丁酸	132684-59-4
Fmoc-Hph(34-Cl2)-OH		(2S)-4-(3,4-二氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丁酸	1260616-12-3
Fmoc-Hph(3-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氟苯基)丁酸	1260594-44-2

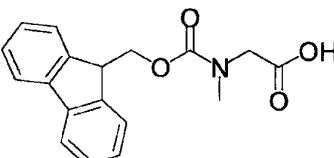
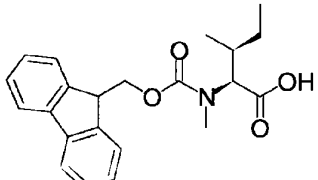
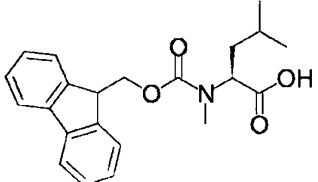
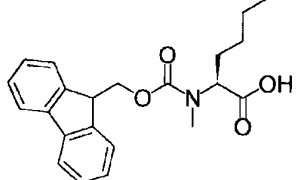
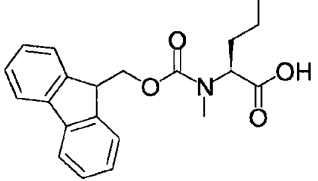
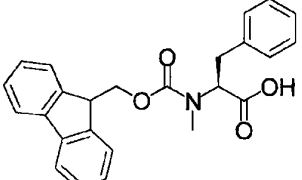
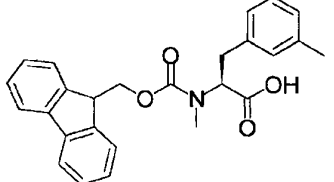
[3346]

Fmoc-Hph(4-CF ₃)-OH		(2S)-2-(9H-芴-9-基甲氧基羧基氨基)-4-[4-(三氟甲基)苯基]丁酸	1260591-49-8
Fmoc-Hph(4-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羧基氨基)-4-(4-氟苯基)丁酸	1260608-85-2
Fmoc-Hph(4-Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羧基氨基)-4-(4-甲基苯基)丁酸	1260587-57-2
Fmoc-Hse(Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羧基氨基)-4-甲氧基丁酸	173212-86-7
Fmoc-iBuGly-OH		2-[9H-芴-9-基甲氧基羧基(2-甲基丙基)氨基]乙酸	141743-14-8
Fmoc-IDC-OH		(2S)-1-(9H-芴-9-基甲氧基羧基)-2,3-二氢吲哚-2-甲酸	198560-38-2
Fmoc-Ile-OH		(2S, 3S)-2-(9H-芴-9-基甲氧基羧基氨基)-3-甲基戊酸	71989-23-6

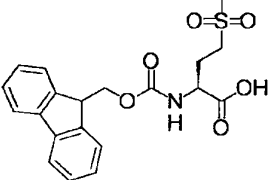
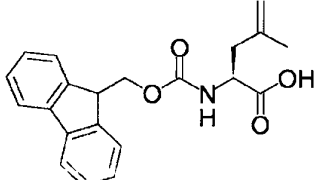
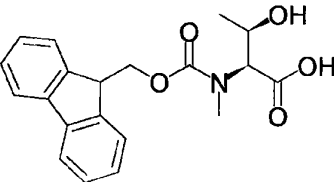
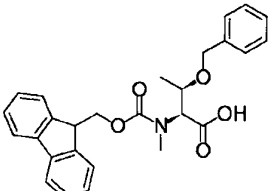
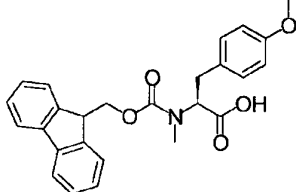
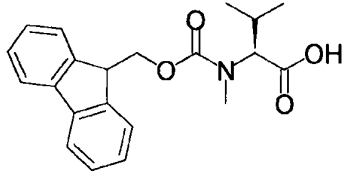
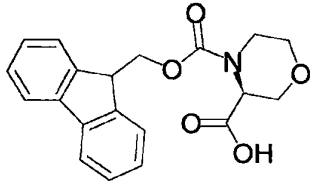
[3347]

Fmoc-Leu-OH		(2S)-2-[(9H-芴-9-基甲氧基羰基氨基)-4-甲基戊酸	35661-60-0
Fmoc-Lys(Alloc)-OH		(2S)-2-[(9H-芴-9-基甲氧基羰基氨基)-6-(丙-2-烯氧羰基氨基)己酸	146982-27-6
Fmoc-MeAbu-OH		(2S)-2-[(9H-芴-9-基甲氧基羰基(甲基)氨基)丁酸	1310575-53-1
Fmoc-MeAib-OH		2-[(9H-芴-9-基甲氧基羰基(甲基)氨基)-2-甲基丙酸	400779-65-9
Fmoc-MeAla-OH		(2S)-2-[(9H-芴-9-基甲氧基羰基(甲基)氨基)丙酸	84000-07-7
Fmoc-MeCha-OH		(2S)-3-环己基-2-[(9H-芴-9-基甲氧基羰基(甲基)氨基)丙酸	148983-03-3
Fmoc-MeChg-OH		(2S)-2-环己基-2-[(9H-芴-9-基甲氧基羰基(甲基)氨基)乙酸	925240-97-7

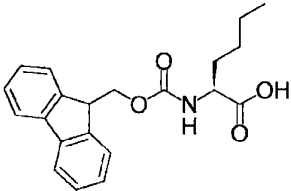
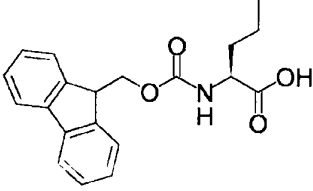
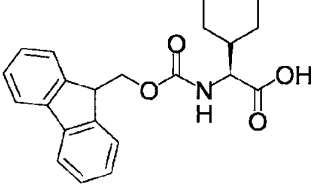
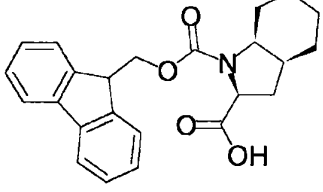
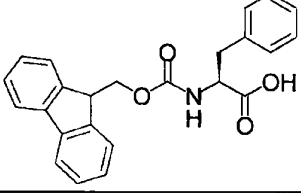
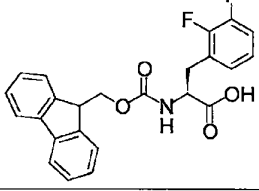
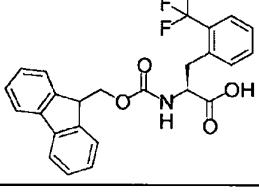
[3348]

Fmoc-MeGly-OH		2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸	77128-70-2
Fmoc-Melle-OH		(2S, 3S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲基戊酸	138775-22-1
Fmoc-MeLeu-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲基戊酸	103478-62-2
Fmoc-MeNle-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]己酸	112883-42-8
Fmoc-MeNva-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊酸	252049-05-1
Fmoc-MePhe-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-苯基丙酸	77128-73-5
Fmoc-MePhe(3-Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲基苯基)丙酸	无

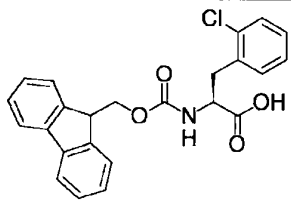
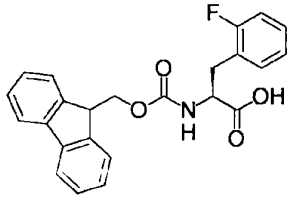
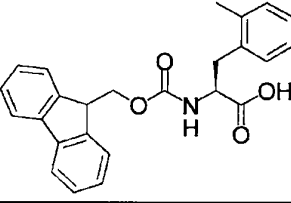
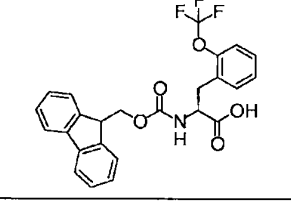
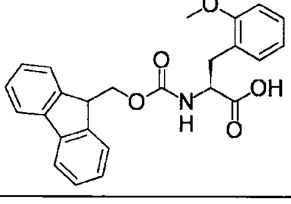
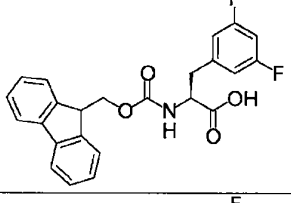
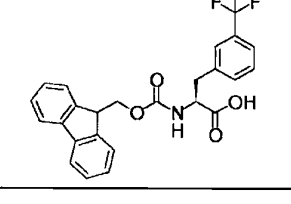
[3349]

Fmoc-Met(O ₂)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-甲基磺酰基丁酸	163437-14-7
Fmoc-Methagly-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-甲基戊-4-烯酸	87720-55-6
Fmoc-MeThr-OH		(2S, 3R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-羟基丁酸	252049-06-2
Fmoc-MeThr(Bn)-OH		(2S, 3R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-苯基甲氧基丁酸	198561-81-8
Fmoc-MeTyr(Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-甲氧基苯基)丙酸	1260595-45-6
Fmoc-MeVal-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲基丁酸	84000-11-3
Fmoc-Mor(3)-OH		(3S)-4-(9H-芴-9-基甲氧基羰基)吗啉-3-甲酸	281655-37-6

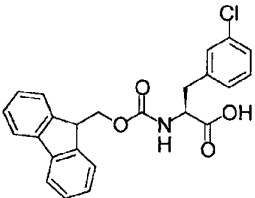
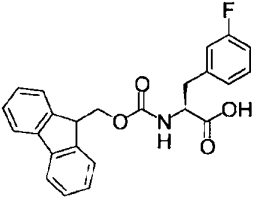
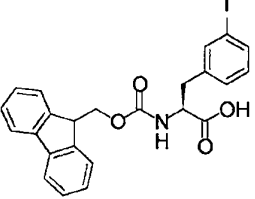
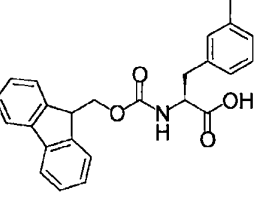
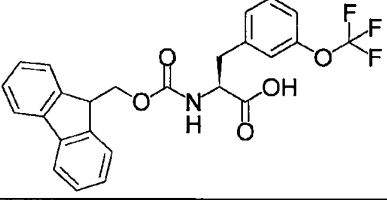
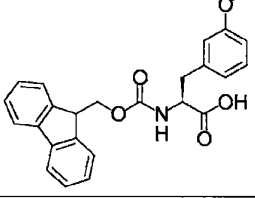
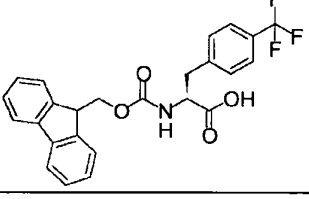
[3350]

Fmoc-Nle-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)己酸	77284-32-3
Fmoc-Nva-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)戊酸	135112-28-6
Fmoc-Nva(3-Et)-OH		(2S)-3-乙基-2-(9H-芴-9-基甲氧基羰基氨基)戊酸	1310680-47-7
Fmoc-Oic-OH		(2S, 3aS, 7aS)-1-(9H-芴-9-基甲氧基羰基)-2, 3, 3a, 4, 5, 6, 7, 7a-八氢吲哚-2-甲酸	130309-37-4
Fmoc-Phe-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-苯基丙酸	35661-40-6
Fmoc-Phe(23-F2)-OH		(2S)-3-(2, 3-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	1260605-30-8
Fmoc-Phe(2-CF3)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[2-(三氟甲基)苯基]丙酸	352523-16-1

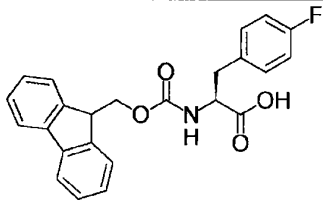
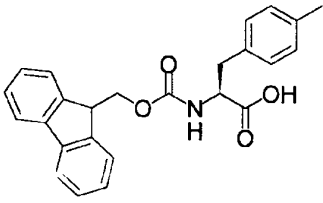
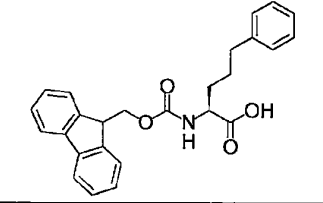
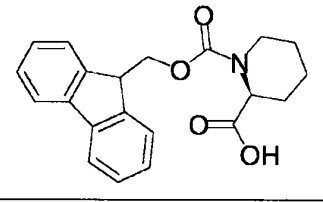
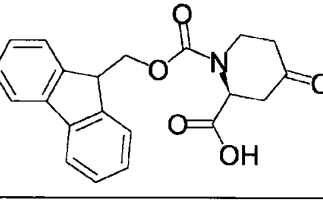
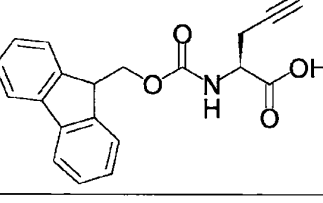
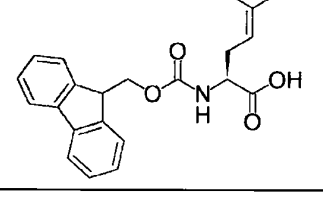
[3351]

Fmoc-Phe(2-Cl)-OH		(2S)-3-(2-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	198560-41-7
Fmoc-Phe(2-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟苯基)丙酸	205526-26-7
Fmoc-Phe(2-Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-甲基苯基)丙酸	211637-75-1
Fmoc-Phe(2-OCF ₃)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[2-(三氟甲氧基)苯基]丙酸	1260593-24-5
Fmoc-Phe(2-OMe)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-甲氧基苯基)丙酸	206060-41-5
Fmoc-Phe(3,5-F ₂)-OH		(2S)-3-(3,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	205526-24-5
Fmoc-Phe(3-CF ₃)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[3-(三氟甲基)苯基]丙酸	205526-27-8

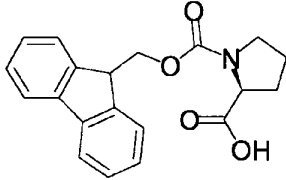
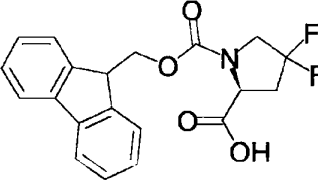
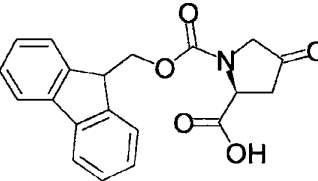
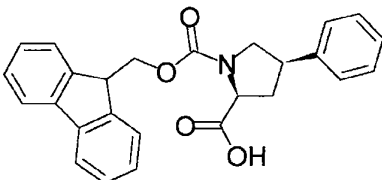
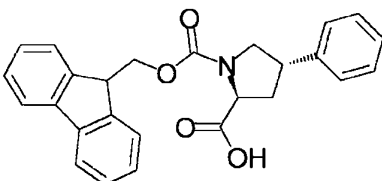
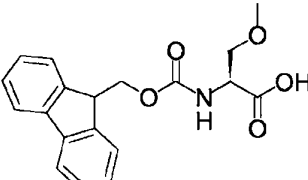
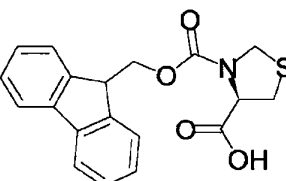
[3352]

Fmoc-Phe(3-Cl)-OH		(2S)-3-(3-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	198560-44-0
Fmoc-Phe(3-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-氟苯基)丙酸	198560-68-8
Fmoc-Phe(3-I)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘苯基)丙酸	210282-31-8
Fmoc-Phe(3-Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-甲基苯基)丙酸	211637-74-0
Fmoc-Phe(3-OCF ₃)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[3-(三氟甲氧基)苯基]丙酸	1260592-32-2
Fmoc-Phe(3-OMe)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-甲氧基苯基)丙酸	206060-40-4
Fmoc-Phe(4-CF ₃)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[4-(三氟甲基)苯基]丙酸	247113-86-6

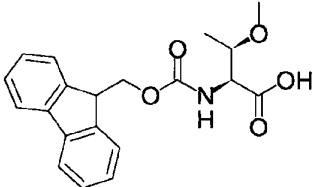
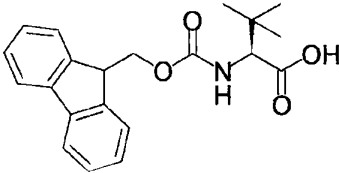
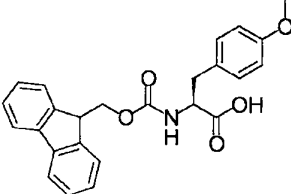
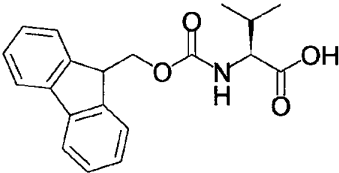
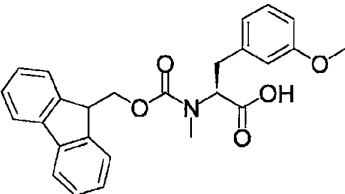
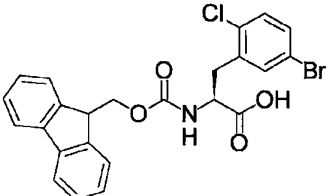
[3353]

Fmoc-Phe(4-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(4-氟苯基)丙酸	169243-86-1
Fmoc-Phe(4-Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(4-甲基苯基)丙酸	199006-54-7
Fmoc-Phe3-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-5-苯基戊酸	959578-11-1
Fmoc-Pic(2)-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)哌啶-2-甲酸	86069-86-5
Fmoc-Pic(2)(4-Oxo)-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)-4-氧代哌啶-2-甲酸	1221793-43-6
Fmoc-PRA-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)戊-4-炔酸	198561-07-8
Fmoc-Pregly-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-5-甲基-4-烯酸	914486-08-1

[3354]

Fmoc-Pro-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-甲酸	71989-31-6
Fmoc-Pro(4-F ₂)-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)-4,4-二氟吡咯烷-2-甲酸	203866-21-1
Fmoc-Pro(4-keto)-OH		(2S)-1-(9H-芴-9-基甲氧基羰基)-4-氧代吡咯烷-2-甲酸	223581-83-7
Fmoc-Pro(4R-Ph)-OH		(2S,4R)-1-(9H-芴-9-基甲氧基羰基)-4-苯基吡咯烷-2-甲酸	1093651-96-7
Fmoc-Pro(4S-Ph)-OH		(2S,4S)-1-(9H-芴-9-基甲氧基羰基)-4-苯基吡咯烷-2-甲酸	269078-71-9
Fmoc-Ser(Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-甲氧基丙酸	159610-93-2
Fmoc-Thioprop-OH		(4R)-3-(9H-芴-9-基甲氧基羰基)-1,3-噻唑烷-4-甲酸	133054-21-4

[3355]

Fmoc-Thr(Me)-OH		(2S, 3R)-2-(9H-芴-9-基甲氧基羰基氨基)-3-甲氧基丁酸	928063-81-4
Fmoc-Tle-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3,3-二甲基丁酸	132684-60-7
Fmoc-Tyr(Me)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(4-甲氧基苯基)丙酸	77128-72-4
Fmoc-Val-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-甲基丁酸	68858-20-8
Fmoc-MePhe(3-OMe)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲氧基苯基)丙酸	无
Fmoc-Phe(2-Cl-5-Br)-OH		(2S)-3-(5-溴-2-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸	2002401-84-3

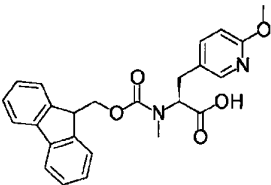
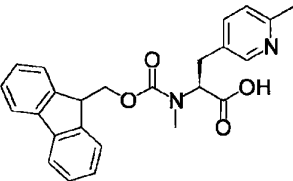
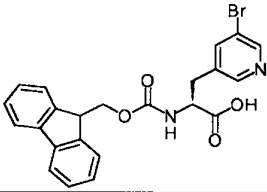
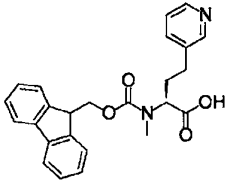
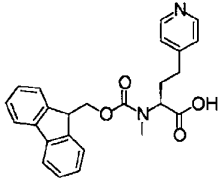
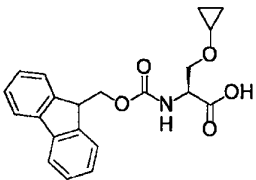
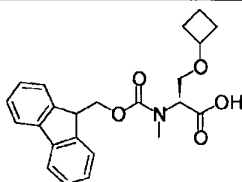
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[表5]

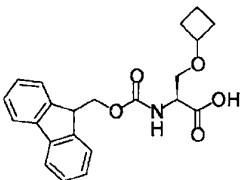
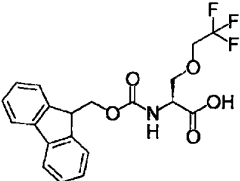
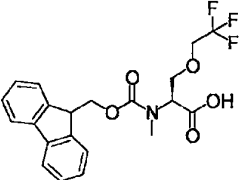
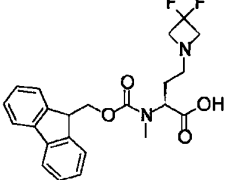
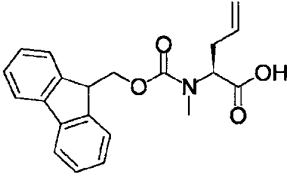
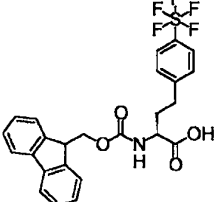
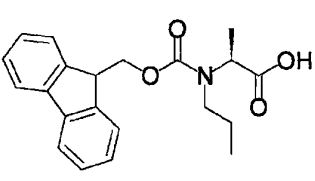
[3357]

化合物编号	简称	结构式	名称
aa001	Fmoc-(pip(4-F2)nPr)Gly-OH		2-[3-(4,4-二氟哌啶-1-基)丙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸
aa002	Fmoc-2-(pip-4-F2)-EtGly-OH		2-[2-(4,4-二氟哌啶-1-基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸
aa003	Fmoc-cPrGly-OH		2-[环丙基(9H-芴-9-基甲氧基羰基)氨基]乙酸
aa004	Fmoc-iPrGly-OH		2-[9H-芴-9-基甲氧基羰基(丙烷-2-基)氨基]乙酸
aa033	Fmoc-MeAla(3-Pyr-4-CF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[6-(三氟甲基)吡啶-3-基]丙酸
aa034	Fmoc-MeAla(3-Pyr-5-OMe)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲氧基吡啶-3-基)丙酸
aa035	Fmoc-MeAla(3-Pyr-5-Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲基吡啶-3-基)丙酸

[3358]

aa036	Fmoc-MeAla(3-Pyr-4-OMe)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲氧基吡啶-3-基)丙酸
aa037	Fmoc-MeAla(3-Pyr-4-Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲基吡啶-3-基)丙酸
aa038	Fmoc-Ala(3-Pyr-5-Br)-OH		(2S)-3-(5-溴吡啶-3-基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸
aa039	Fmoc-MeAbu(3-Pyr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-3-基丁酸
aa040	Fmoc-MeAbu(4-Pyr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-4-基丁酸
aa041	Fmoc-Ser(cPr)-OH		(2S)-3-环丙氧基-2-[9H-芴-9-基甲氧基羰基氨基]丙酸
aa042	Fmoc-MeSer(cBu)-OH		(2S)-3-环丁氧基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸

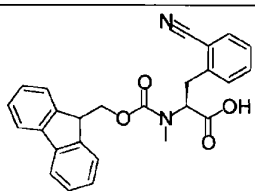
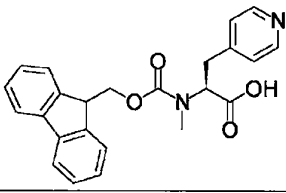
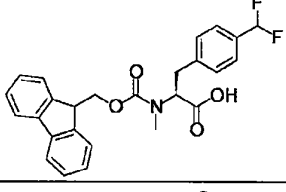
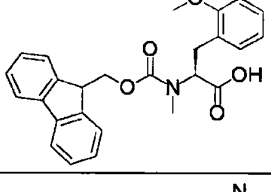
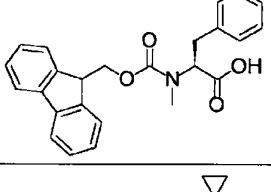
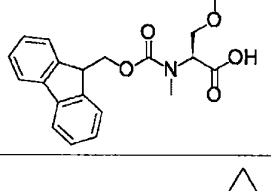
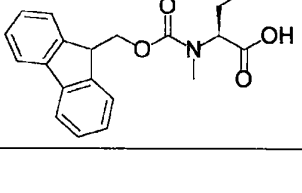
[3359]

aa043	Fmoc-Ser(cBu)-OH		(2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸
aa044	Fmoc-Ser(Tfe)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸
aa045	Fmoc-MeSer(Tfe)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸
aa047	Fmoc-MeAbu(Aze-3-F2)-OH		(2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸
aa048	Fmoc-MeAlgly-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-烯酸
aa049	Fmoc-Hph(4-SF5)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(五氟-λ 6-硫烷基)苯基]丁酸
aa050	Fmoc-nPrAla-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(丙基)氨基]丙酸

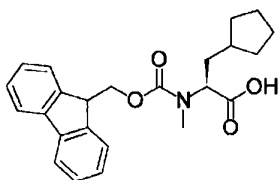
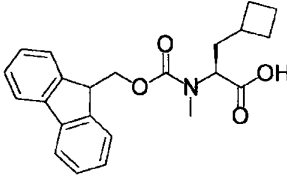
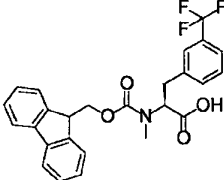
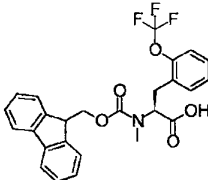
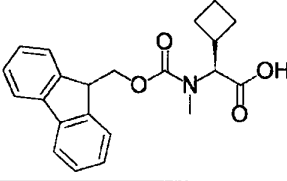
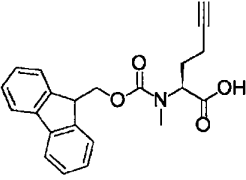
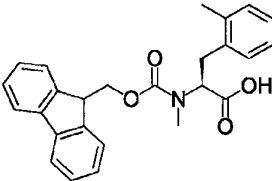
[3360]

aa053	Fmoc-Ala(B(OH) ₂)-OH		(2S)-3-(二羟基-2-(9H-芴-9-基甲氧基羰基氨基)丙基)丙酸
aa054	Fmoc-D-MeSer(THP)-OH		(2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(四氢-2H-吡喃-2-基氧基)丙酸
aa055	Fmoc-D-MeSer(<i>i</i> Pen)-OH		(2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲基丁基氧基)丙酸
aa060	Fmoc-MePhe(3-CN)-OH		(2S)-3-(3-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa061	Fmoc-MePhe(4-CN)-OH		(2S)-3-(4-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa062	Fmoc-MeSer(Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丙酸
aa063	Fmoc-MePhe(2-CF ₃)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸

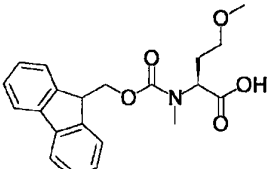
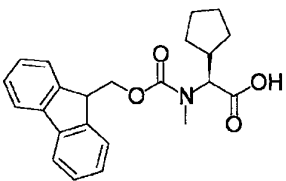
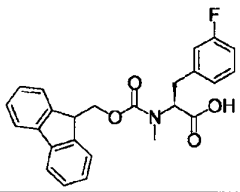
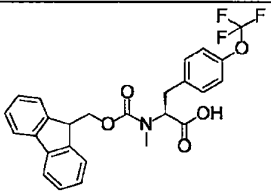
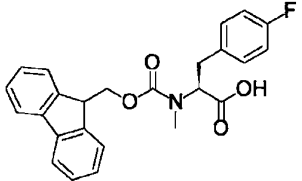
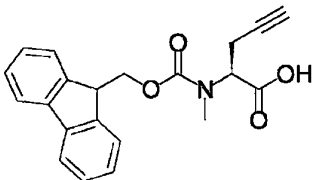
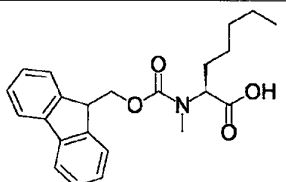
[3361]

aa064	Fmoc-MePhe(2-CN)-OH		(2S)-3-(2-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa065	Fmoc-MeAla(4-Pyr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-4-基丙酸
aa066	Fmoc-MePhe(4-CHF2)-OH		(2S)-3-[4-(二氟甲基)苯基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa067	Fmoc-MePhe(2-OMe)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸
aa068	Fmoc-MeAla(3-Pyr)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-3-基丙酸
aa069	Fmoc-MeSer(cPr)-OH		(2S)-3-环丙基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa070	Fmoc-MeAla(cPr)-OH		(2S)-3-环丙基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸

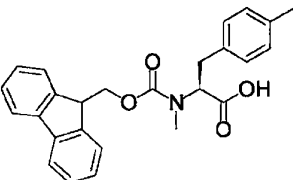
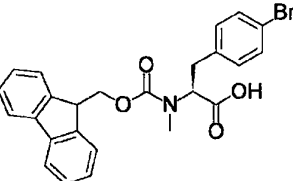
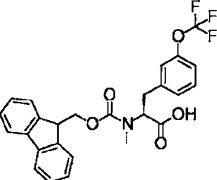
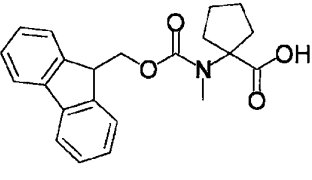
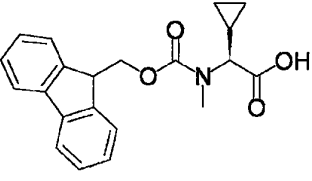
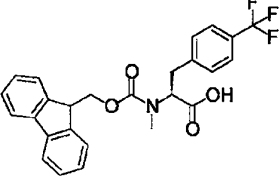
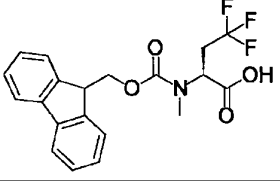
[3362]

aa071	Fmoc-MeAla(cPent)-OH		(2S)-3-环戊基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa072	Fmoc-MeAla(cBu)-OH		(2S)-3-环丁基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa073	Fmoc-MePhe(3-CF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲基)苯基]丙酸
aa074	Fmoc-MePhe(2-OCF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲氧基)苯基]丙酸
aa075	Fmoc-MeGly(cBu)-OH		(2S)-2-环丁基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸
aa076	Fmoc-MeAhxy(2)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-己-5-炔酸
aa077	Fmoc-MePhe(2-Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲基苯基)丙酸

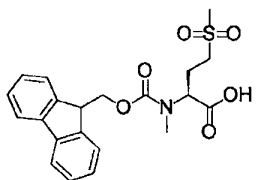
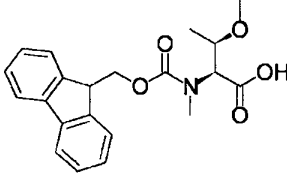
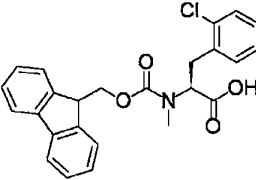
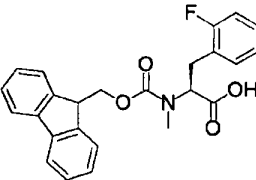
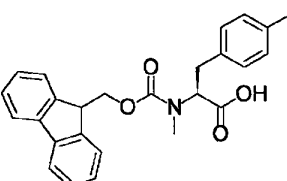
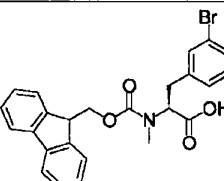
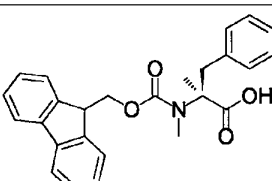
[3363]

aa078	Fmoc-MeHse(Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲氧基丁酸
aa079	Fmoc-MeGly(cPent)-OH		(2S)-2-环戊基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸
aa080	Fmoc-MePhe(3-F)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-氟苯基)丙酸
aa081	Fmoc-MePhe(4-OCF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲氧基)苯基]丙酸
aa082	Fmoc-MePhe(4-F)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-氟苯基)丙酸
aa083	Fmoc-MePRA-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-炔酸
aa084	Fmoc-MeHnl-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]庚酸

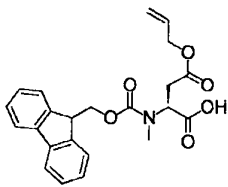
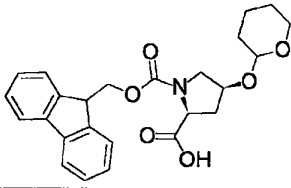
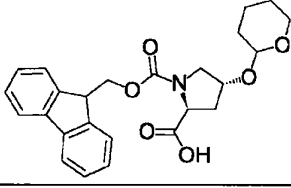
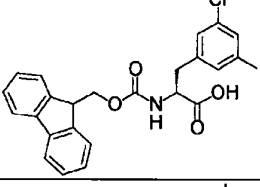
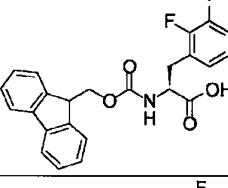
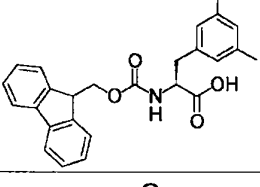
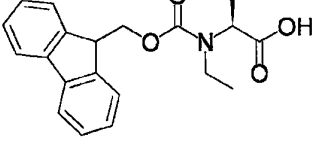
[3364]

aa085	Fmoc-MePhe(4-Me)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-甲基苯基)丙酸
aa086	Fmoc-MePhe(4-Br)-OH		(2S)-3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa087	Fmoc-MePhe(3-OCF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸
aa088	Fmoc-MecLeu-OH		1-[9H-芴-9-基甲氧基羰基(甲基)氨基]环戊烷-1-甲酸
aa089	Fmoc-MeGly(cPr)-OH		(2S)-2-环丙基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸
aa090	Fmoc-MePhe(4-CF3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸
aa091	Fmoc-MeAbu(4-F3)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4,4,4-三氟丁酸

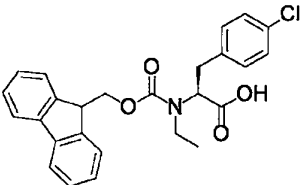
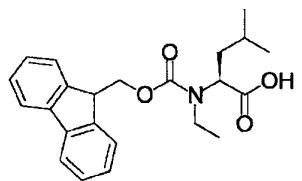
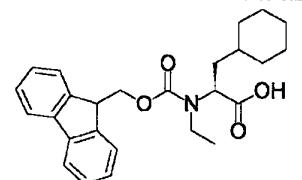
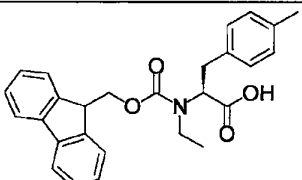
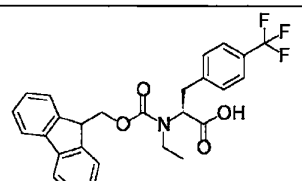
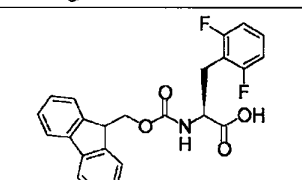
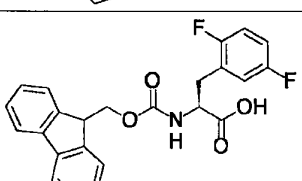
[3365]

aa092	Fmoc-MeMet(O ₂)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲基磺酰基丁酸
aa093	Fmoc-MeThr(Me)-OH		(2S, 3R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丁酸
aa094	Fmoc-MePhe(2-Cl)-OH		(2S)-3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa095	Fmoc-MePhe(2-F)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸
aa096	Fmoc-MePhe(4-I)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸
aa097	Fmoc-MePhe(3-Br)-OH		(2S)-3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa098	Fmoc-Me(Me)Phe-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸

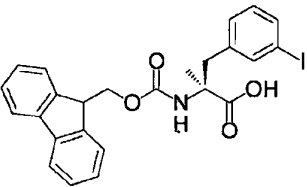
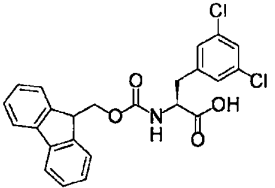
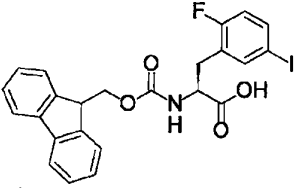
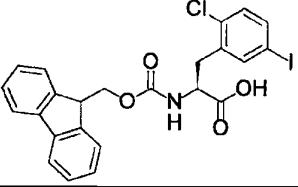
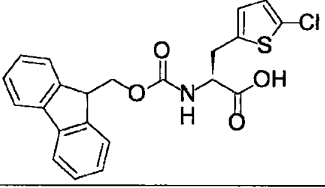
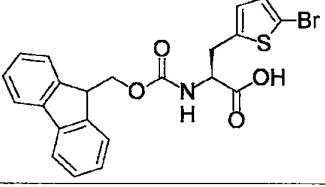
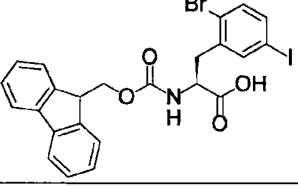
[3366]

aa033-b	Fmoc-MeAsp(OAl)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸
aa101	Fmoc-cisHyp(THP)-OH		(2S, 4S)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧基)吡咯烷-2-甲酸
aa102	Fmoc-Hyp(THP)-OH		(2S, 4R)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧基)吡咯烷-2-甲酸
aa104	Fmoc-Phe(3-I-5-Cl)-OH		(2S)-3-(3-氯-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸
aa105	Fmoc-Phe(2-F-3-I)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-3-碘苯基)丙酸
aa106	Fmoc-Phe(3-I-5-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘-5-氟苯基)丙酸
aa109	Fmoc-EtAla-OH		(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸

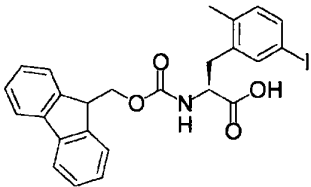
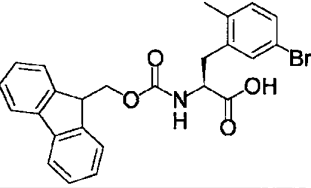
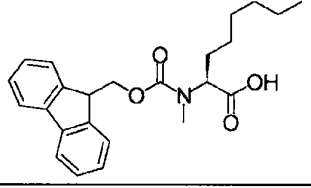
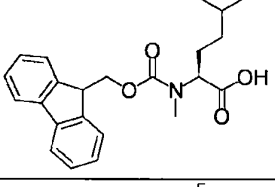
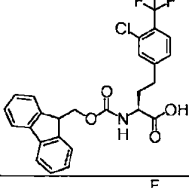
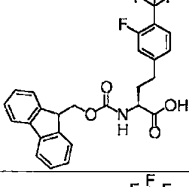
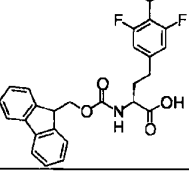
[3367]

aa110	Fmoc-EtPhe(4-Cl)-OH		(2S)-3-(4-氯苯基)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸
aa111	Fmoc-EtLeu-OH		(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-甲基戊酸
aa112	Fmoc-EtCha-OH		(2S)-3-环己基-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸
aa113	Fmoc-EtPhe(4-Me)-OH		(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-(4-甲基苯基)丙酸
aa114	Fmoc-EtPhe(4-CF3)-OH		(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-[4-(三氟甲基)苯基]丙酸
aa116	Fmoc-Phe(26-F2)-OH		(2S)-3-(2,6-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸
aa118	Fmoc-Phe(25-F2)-OH		(2S)-3-(2,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸

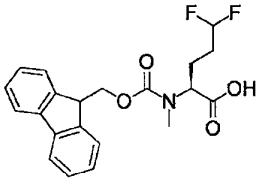
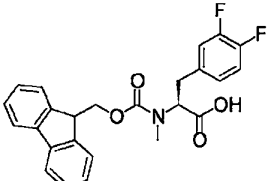
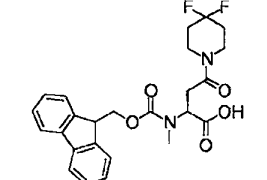
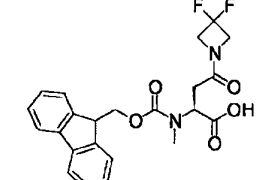
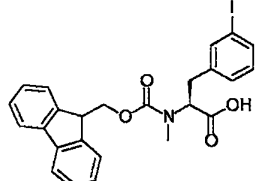
[3368]

aa119	Fmoc-(Me)Phe(3-I)-OH		(2S)-2-(9H-苄-9-基甲氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸
aa120	Fmoc-Phe(35-Cl2)-OH		(2S)-3-(3,5-二氯苯基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸
aa121	Fmoc-Phe(2-F-5-I)-OH		(2S)-2-(9H-苄-9-基甲氧基羰基氨基)-3-(2-氟-5-碘苯基)丙酸
aa122	Fmoc-Phe(2-Cl-5-I)-OH		(2S)-3-(2-氯-5-碘苯基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸
aa124	Fmoc-Ala(2-Thie-5-Cl)-OH		(2S)-3-(5-噻吩-2-基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸
aa125	Fmoc-Ala(2-Thie-5-Br)-OH		(2S)-3-(5-溴噻吩-2-基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸
aa126	Fmoc-Phe(2-Br-5-I)-OH		(2S)-3-(2-溴-5-碘苯基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸

[3369]

aa127	Fmoc-Phe(2-Me-5-I)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(5-碘-2-甲基苯基)丙酸
aa128	Fmoc-Phe(2-Me-5-Br)-OH		(2S)-3-(5-溴-2-甲基苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸
aa130	Fmoc-MeAOC(2)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]辛酸
aa131	Fmoc-MeHle-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸
aa132	Fmoc-Hph(4-CF3-3-Cl)-OH		(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸
aa133	Fmoc-Hph(4-CF3-3-F)-OH		(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸
aa134	Fmoc-Hph(4-CF3-35-F2)-OH		(2S)-4-[3,5-二氟-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸

[3370]

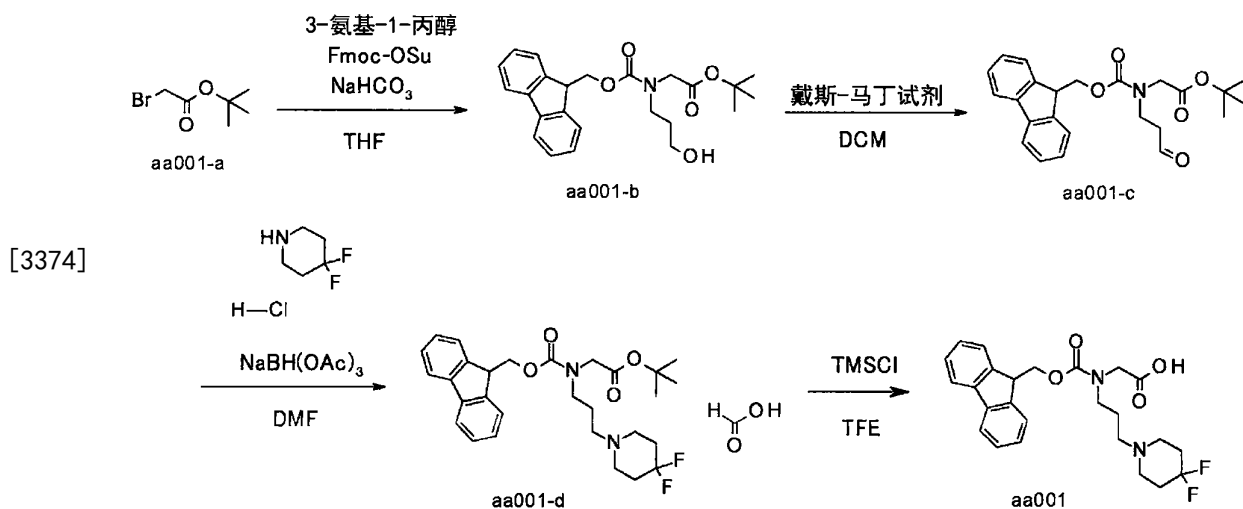
aa150	Fmoc-MeNva(5-F2)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5,5-二氟戊酸
aa151	Fmoc-MePhe(34-F2)-OH		(2S)-3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸
aa152	Fmoc-MeAsn(pip-4-F2)-OH		(2S)-4-(4,4-二氟哌啶-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸
aa153	Fmoc-MeAsn(Aze-3-F2)-OH		(2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸
aa154	Fmoc-MePhe(3-I)-OH		(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-碘苯基)丙酸

[3371]

aa156	Fmoc-(4-Me-piz-Et)Gly-OH		2-[9H-苄-9-基甲氧基羰基-[2-(4-甲基哌嗪-1-基)乙基]氨基]乙酸
aa157	Fmoc-(Aze(3)Et)Gly-OH		2-[2-(氮杂环丁烷-3-基)乙基-(9H-苄-9-基甲氧基羰基)氨基]乙酸
aa158	Fmoc-(H2NEtOEt)Gly-OH		2-[2-(2-氨基乙氧基)乙基-(9H-苄-9-基甲氧基羰基)氨基]乙酸
aa159	Fmoc-(H2NnBu)Gly-OH		2-[4-氨基丁基(9H-苄-9-基甲氧基羰基)氨基]乙酸
aa160	Fmoc-(Me2NEtOEt)Gly-OH		2-[2-[2-(二甲基氨基)乙氧基]乙基-(9H-苄-9-基甲氧基羰基)氨基]乙酸
aa161	Fmoc-(MeNEtOEt)Gly-OH		2-[9H-苄-9-基甲氧基羰基-[2-[2-(甲基氨基)乙氧基]乙基]氨基]乙酸
aa162	Fmoc-(piz-Et)Gly-OH		2-[9H-苄-9-基甲氧基羰基(2-哌嗪-1-基乙基)氨基]乙酸

[3372] Fmoc-氨基酸的合成

[3373] 化合物aa001、2-[3-(4,4-二氟哌啶-1-基)丙基-(9H-苄-9-基甲氧基羰基)氨基]乙酸(Fmoc-(pip(4-F2)nPr)Gly-OH)的合成



[3375] 在氮气气氛下,将3-氨基-1-丙醇(3.85g,51.3mmol)溶解于无水四氢呋喃(51.2ml)中,冷却至0℃,然后以滴加的方式加入化合物aa001-a(溴乙酸叔丁酯)(5.0g,25.6mmol)的无水四氢呋喃溶液。在0℃搅拌10分钟之后,在室温搅拌1小时。再次冷却至0℃之后,依次加入水(81.9ml)、碳酸氢钠(4.74g,56.4mmol)、N-(9-芴基甲氧基羰基氧基)琥珀酰亚胺(Fmoc-OSu)(17.29g,51.3mmol),在室温下搅拌过夜。冷却至0℃之后,加入乙酸乙酯(500ml)、饱和氯化铵水溶液(500ml)进行萃取。将有机层用水(500ml)、饱和食盐水(500ml)洗涤,用无水硫酸钠干燥后,在减压下蒸馏除去溶剂。

[3376] 利用正相色谱(正己烷/乙酸乙酯)纯化所得的浓缩物,得到化合物aa001-b(7.37g,70%)。

[3377] LCMS (ESI) $m/z = 434 (M+Na)^+$

[3378] 保留时间:0.88分钟(分析条件SQDFA05)

[3379] 将化合物aa001-b(6.37g,15.5mmol)溶解于无水二氯甲烷(51.6ml)中,0℃下加入戴斯-马丁试剂(7.22g,17.0mmol),搅拌10分钟后升温至室温。1小时后,冷却至0℃,加入乙酸乙酯(500毫升)、碳酸氢钠水溶液(500毫升)进行萃取。将有机层用硫代硫酸钠水溶液(500ml)、饱和食盐水(500ml)进行洗涤,用无水硫酸钠干燥后,在减压下蒸馏除去溶剂。利用正相色谱(正己烷/乙酸乙酯)纯化所得的浓缩物,得到化合物aa001-c(5.58g,88%)。

[3380] LCMS (ESI) $m/z = 410 (M+H)^+$

[3381] 保留时间:0.96分钟(分析条件SQDFA05)

[3382] 将化合物aa001-c(0.97g,2.37mmol)和4,4-二氟哌啶盐酸盐(0.44g,2.77mmol)溶解于N,N-二甲基甲酰胺(7.9ml)中,室温下加入三乙酰氧基硼氢化钠(0.75g,3.55mmol),搅拌30分钟。利用反相色谱(含有0.1%甲酸的乙腈与/含有0.1%甲酸的蒸馏水)纯化反应液,得到化合物aa001-d(0.65g,49%)。

[3383] LCMS (ESI) $m/z = 515.5 (M+H)^+$

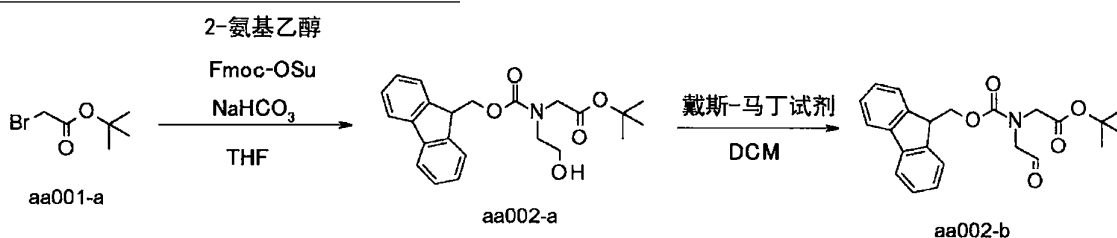
[3384] 保留时间:0.68分钟(分析条件SQDFA05)

[3385] 将化合物aa001-d(0.64g,1.14mmol)溶解于2,2,2-三氟乙醇(5.7ml)中,加入三甲基氯硅烷(TMSCl)(0.43ml,3.42mmol),在室温下搅拌1小时后,在减压下蒸馏除去溶剂,得到化合物aa001(2-[3-(4,4-二氟哌啶-1-基)丙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸、Fmoc-(pip(4-F₂)nPr)Gly-OH)(0.52g,99%)。

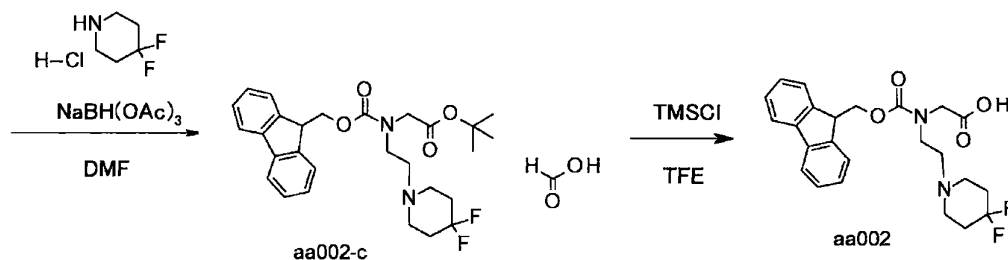
[3386] LCMS (ESI) $m/z = 459$ (M+H) +

[3387] 保留时间:0.54分钟(分析条件SQDFA05)

[3388] 化合物aa002、2-[2-(4,4-二氟哌啶-1-基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸(Fmoc-(pip(4-F2)Et)Gly-OH)的合成



[3389]



[3390] 以化合物aa001-a(溴乙酸叔丁酯)(5.00g,25.6mmol)作为起始原料,代替3-氨基-1-丙醇而使用2-氨基乙醇,以与化合物aa001-b的合成相同的方法得到化合物aa002-a(8.59g,84%)。

[3391] LCMS (ESI) $m/z = 420$ (M+Na) +

[3392] 保留时间:0.88分钟(分析条件SQDFA05)

[3393] 使用得到的化合物aa002-a(2.35g,5.91mmol),在与化合物aa001-c的合成相同的反应条件下得到化合物aa002-b的粗产物(5.58g)。没有进行进一步的纯化地实施下一步反应。

[3394] LCMS (ESI) $m/z = 396$ (M+H) +

[3395] 保留时间:0.96分钟(分析条件SQDFA05)

[3396] 使用上述反应中得到的化合物aa002-b(2.79g,2.955mmol当量),在与化合物aa001-d的合成相同的反应条件下得到化合物aa002-c(1.33g,82%)。

[3397] LCMS (ESI) $m/z = 501.5$ (M+H) +

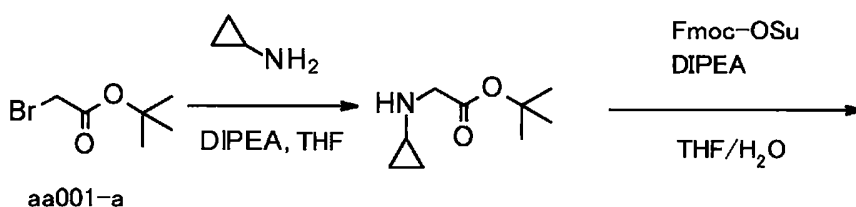
[3398] 保留时间:0.67分钟(分析条件SQDFA05)

[3399] 使用得到的化合物aa002-c(1.33g,2.433mmol),在与化合物aa001的合成相同的反应条件下,得到化合物aa002(2-[2-(4,4-二氟哌啶-1-基)乙基-(9H-芴-9-基甲氧基羰基)氨基]乙酸、Fmoc-(pip(4-F2)Et)Gly-OH(1.08g,99%)。

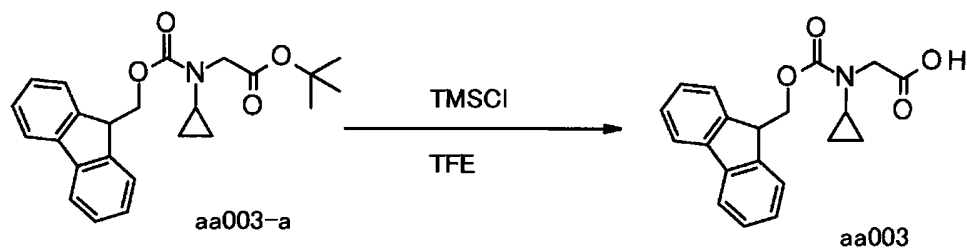
[3400] LCMS (ESI) $m/z = 445$ (M+H) +

[3401] 保留时间:0.58分钟(分析条件SQDFA05)

[3402] 化合物aa003、2-[环丙基(9H-芴-9-基甲氧基羰基)氨基]乙酸(Fmoc-cPrGly-OH)的合成



[3403]



[3404] 在氮气气氛下,将环丙胺(1.756g,30.8mmol)溶解于无水四氢呋喃(40ml)中,冷却至0℃,然后以滴加的方式加入化合物aa001-a(溴乙酸叔丁酯)(3.0g,15.38mmol)的无水四氢呋喃(10ml)溶液。然后在室温下搅拌过夜。依次加入水(30mL)、二异丙基乙胺(DIPEA)(5.96g,46.1mmol)、N-(9-芴基甲氧基羰基氧基)琥珀酰亚胺(Fmoc-OSu)(10.38g,30.8mmol),在室温下搅拌1小时。向反应液中加入二甲亚砜、20%甲酸水溶液后,在减压下蒸馏除去四氢呋喃。利用反相色谱(含有0.1%甲酸的乙腈/0.1%甲酸水溶液)纯化所得的浓缩物,得到化合物aa003-a(2.72g,45%)。

[3405] LCMS (ESI) $m/z = 394 (M+H)^+$

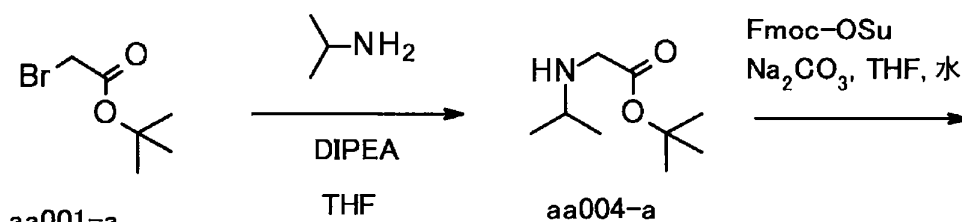
[3406] 保留时间:1.06分钟(分析条件SQDFA05)

[3407] 将化合物aa003-a(2.72g,6.91mmol)溶解于2,2,2-三氟乙醇(TFE)(34.6mL)中,加入三甲基氯硅烷(TMSCl)(2.63mL,20.74mmol),在室温下搅拌40分钟后,在减压下蒸馏除去溶剂。利用反相色谱(含有0.1%甲酸的乙腈/0.1%甲酸水溶液)纯化所得的浓缩物,得到化合物aa003(2-[环丙基(9H-芴-9-基甲氧基羰基)氨基]乙酸、Fmoc-cPrGly-OH)(1.74g,75%)。

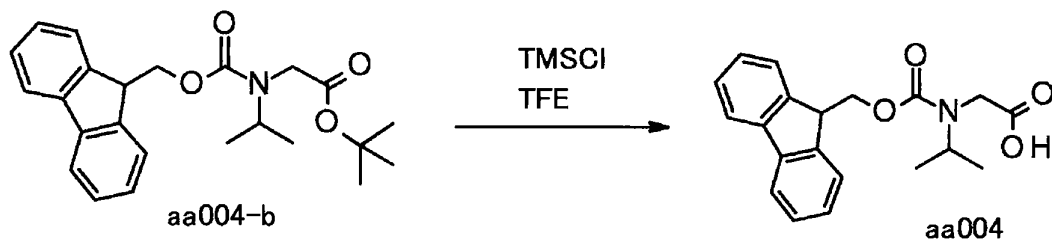
[3408] LCMS (ESI) $m/z = 338 (M+H)^+$

[3409] 保留时间:0.79分钟(分析条件SQDFA05)

[3410] 化合物aa004、2-[9H-芴-9-基甲氧基羰基(丙烷-2-基)氨基]乙酸(Fmoc-iPrGly-OH)的合成



[3411]

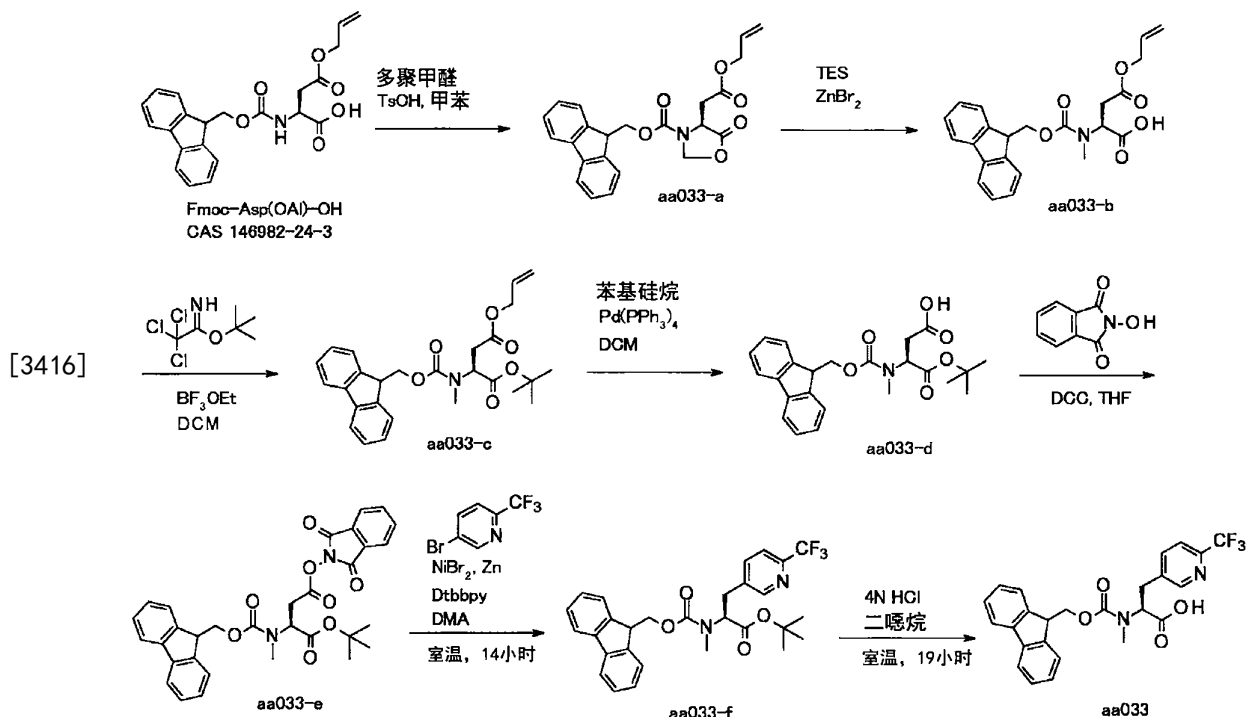


[3412] 使用化合物aa001-a (溴乙酸叔丁酯) (6.6g, 33.8mmol) 作为起始原料, 使用与化合物aa003的合成相同的方法, 在第2工序的Fmoc化中代替DIPEA而使用碳酸钠作为碱, 由此合成化合物aa004 (2-[9H-芴-9-基甲氧基羰基(丙烷-2-基)氨基]乙酸、Fmoc-iPrGly-OH) (7.0g, 3工序48%)。

[3413] LCMS (ESI) m/z = 340 (M+H) +

[3414] 保留时间: 0.80分钟 (分析条件SQDFA05)

[3415] 化合物aa033、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[6-(三氟甲基)吡啶-3-基]丙酸 (Fmoc-MeAla (3-Pyr-4-CF₃)-OH) 的合成



[3417] 将Fmoc-Asp(OAl)-OH ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3) (200g, 506mmol)、对甲苯磺酸 (5.7g, 0.05当量)、多聚甲醛 (45.6g, 3当量) 混合在甲苯中, 在110℃下搅拌16小时。在减压下从反应液中蒸馏除去溶剂, 将残渣溶解于乙酸乙酯中, 用碳酸氢钠水溶液洗涤2次。将有机层用无水硫酸钠干燥后, 在

减压下蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚,0/100~30/70)纯化残渣,得到化合物aa033-a((4S)-5-氧代-4-(2-氧代-2-丙-2-烯氧基乙基)-1,3-噁唑烷-3-甲酸9H-芴-9-基甲酯)(175g,85%)。混合以同样方式合成的另一批用于下一步反应。

[3418] LCMS (ESI) $m/z=408$ (M+H) +

[3419] 保留时间:1.407分钟(分析条件SMDmethod_20)

[3420] 将化合物aa033-a(100g,245mmol)、溴化锌(ZnBr_2)(110g,496mmol)、三乙基硅烷(TES)(56g,481.6mmol)的二氯甲烷(DCM)(1L)混合溶液在氮气气氛下于室温搅拌48小时。混合四批相同规模的反应液,在减压下蒸馏除去溶剂。将残渣溶解于TBME中,用0.5M磷酸盐缓冲液(pH=约7.5)萃取10次。混合水层并用5M盐酸水溶液将pH调节至2,用乙酸异丙酯(IPAC)萃取2次。混合有机层并用无水硫酸钠干燥后,在减压下蒸馏除去溶剂。为了除去IPAC,重复6次向所得的残渣中添加TBME并在减压下蒸馏除去溶剂的操作,得到化合物aa033-b((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸)(270g,54%)。

[3421] LCMS (ESI) $m/z=410$ (M+H) +

[3422] 保留时间:1.956分钟(分析条件SMDmethod_05)

[3423] 在氮气气氛下,在0℃下向化合物aa033-b(100g,244mmol)的DCM(240mL)的溶液中加入2,2,2-三氯乙酰亚胺酸叔丁酯(106.73g,488.5mmol)的环己烷(480mL)溶液和三氟化硼乙醚络合物($\text{BF}_3 \cdot \text{OEt}_2$)(346.6mg,2.442mmol),升温至室温、搅拌1小时。向反应液中加入吡啶进行猝灭(quench),过滤除去固形物。向滤液中加入TBME,依次用饱和碳酸氢钠水和饱和食盐水进行洗涤。混合有机层,用无水硫酸钠干燥后在减压下蒸馏除去溶剂,得到化合物aa033-c的粗产物(102g,90%)。

[3424] LCMS (ESI) $m/z=488$ (M+Na) +

[3425] 保留时间:1.574分钟(分析条件SMDmethod_15)

[3426] 在氮气气氛下,室温下向化合物aa033-c(12g,26.6mmol)和四(三苯基膦)钯(0)(0.92g,0.797mmol)的DCM(110mL)混合液中滴加苯基硅烷(2.01g,18.6mmol),搅拌40分钟。在减压下从反应液中蒸馏除去溶剂,将所得的残渣溶解于TBME中并用饱和碳酸钠水溶液萃取。水层用磷酸调节至pH=2并用TBME萃取,将所得的有机层用饱和食盐水洗涤后,用无水硫酸钠干燥,在减压下蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚,0/100~40/60)纯化所得的残渣,得到化合物aa033-d(10.2g,93%)。混合以同样方式合成的另一批并用于下一步反应。

[3427] LCMS (ESI) $m/z=448$ (M+Na) +

[3428] 保留时间:2.042分钟(分析条件SMDmethod_05)

[3429] 将化合物aa033-d(200g,470mmol)、DCC(96.99g,470mmol)、N-羟基邻苯二甲酰亚胺(84.35g,517.062mmol)溶解于THF(2L)中,在室温下搅拌1小时。过滤除去反应液中的固形物,在减压下从滤液中蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚,0/100~40/60)纯化所得的残渣,得到化合物aa033-e(1-O-叔丁基4-O-(1,3-二氧代异吲哚-2-基)(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁二酸酯)(200g,73%)。

[3430] LCMS (ESI) $m/z=593$ (M+Na) +

[3431] 保留时间:2.706分钟(分析条件SMDmethod_07)

[3432] $^1\text{H-NMR}$ (400MHz, DMSO- d_6) δ 8.04-7.84 (m, 6H), 7.69-7.59 (m, 2H), 7.44-7.28 (m, 4H), 4.91-4.65 (m, 1H), 4.63-4.14 (m, 3H), 3.31-3.09 (m, 1H), 3.07 (s, 2H), 2.81 (s, 3H), 1.38 (s, 9H), 1.10 (s, 4H)。

[3433] 在氮气气氛下,将溴化镍三水合物 ($\text{NiBr}_2 \cdot 3\text{H}_2\text{O}$) (0.287g, 1.052mmol) 和 4,4'-二叔丁基-2,2'-联吡啶 (0.282g, 1.052mmol) 溶解于 DMA (16mL) 中,制备 Ni 溶液。

[3434] 在氮气气氛下,在化合物 aa033-e (2.0g, 3.51mmol)、锌粉 (1.146g, 17.53mmol) 和 5-溴-2-(三氟甲基)吡啶 (2.376g, 10.52mmol) 中加入 DMA (16mL) 后,加入之前制备的 Ni 溶液,在室温下搅拌 14 小时。然后将反应液用 TBME (250mL) 稀释,过滤除去固体成分。将所得的 TBME/DMA 溶液用 EDTA 水溶液 (1g 溶解于 100mL 水中) 洗涤 2 次,有机层用无水硫酸钠干燥,过滤后进行减压浓缩。利用反相柱色谱 (含有 0.1% 甲酸的乙腈/含有 0.1% 甲酸的蒸馏水) 纯化所得的残渣,并将分离组分 (fractions) 冷冻干燥,得到化合物 aa033-f (1.15g, 62.3%)。

[3435] LCMS (ESI) $m/z = 527$ (M+H) +

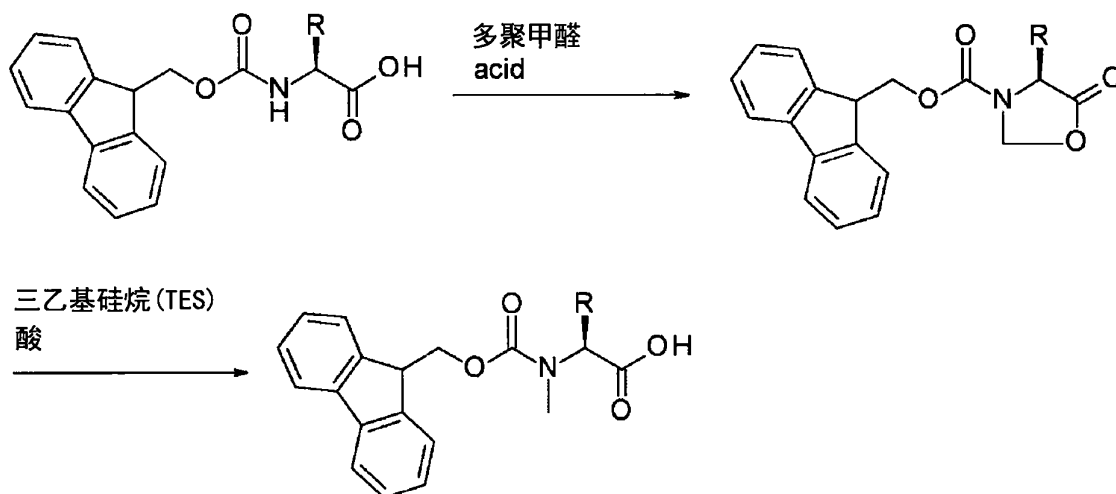
[3436] 保留时间: 1.08 分钟 (分析条件 SQDFA05)

[3437] 将得到的化合物 aa033-f (1.15g, 2.184mmol) 溶解于 4N 盐酸/1,4-二噁烷溶液 (10.92mL, 43.7mmol) 中,将混合物在室温下搅拌 19 小时,然后减压浓缩反应液,由此得到化合物 aa033 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[6-(三氟甲基)吡啶-3-基]丙酸, Fmoc-MeAla (3-Pyr-4-CF₃)-OH) (1.20g, quant.)。

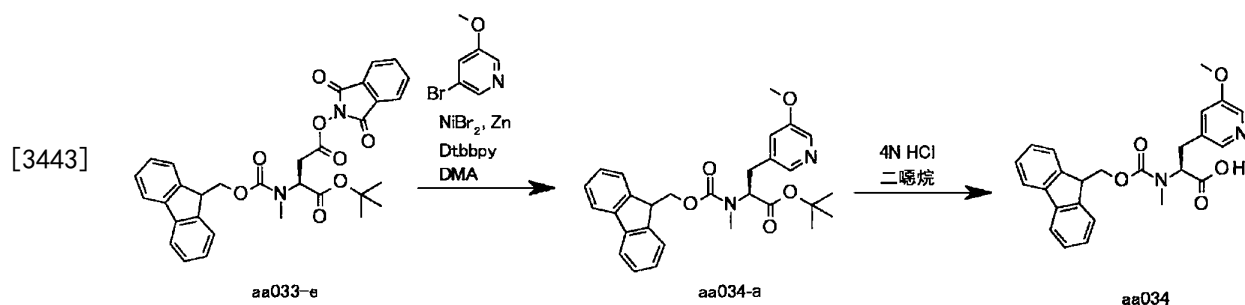
[3438] LCMS (ESI) $m/z = 471$ (M+H) +

[3439] 保留时间: 0.87 分钟 (分析条件 SQDFA05)

[3440] 本说明书中被 Fmoc 基保护的 NH 氨基酸向 N-甲基氨基酸的转换是根据以下所示 2 个工序的基本合成路线进行的。本说明书中将针对各氨基酸说明 N-甲基化反应的合成例,但也可以使用在本说明书的不同部分中记载的任意方法。



[3442] 化合物 aa034、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲氧基吡啶-3-基)丙酸 (Fmoc-MeAla (3-Pyr-5-OMe)-OH) 的合成



[3444] 将化合物aa033-e (1-O-叔丁基4-O- (1,3-二氧代异吲哚-2-基) (2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁二酸酯) (2g, 3.51mmol) 和3-溴-5-甲氧基吡啶作为原料, 利用与化合物aa033-f的合成相同的方法得到化合物aa034-a (0.72g, 42%)。

[3445] LCMS (ESI) $m/z = 489$ (M+H) +

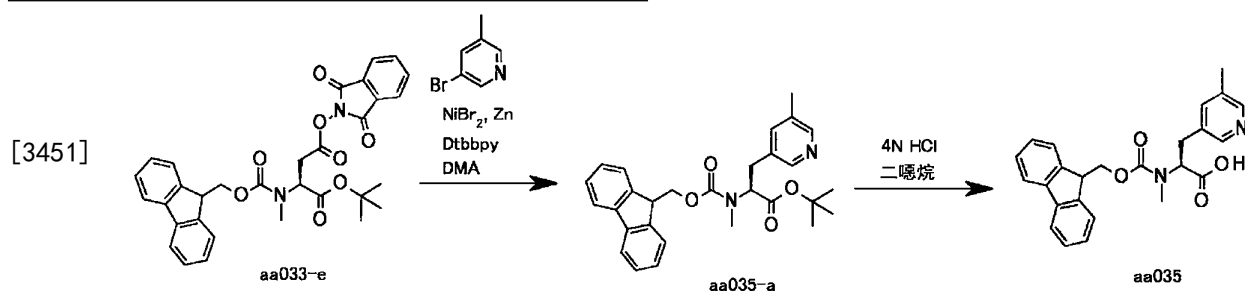
[3446] 保留时间: 0.89分钟 (分析条件SQDFA05)

[3447] 将化合物aa034-a (0.72g, 1.474mmol) 作为原料, 利用与化合物aa033的合成相同的方法得到化合物aa034 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲氧基吡啶-3-基)丙酸、Fmoc-MeAla (3-Pyr-5-OMe)-OH) (807.4mg, quant.)。

[3448] LCMS (ESI) $m/z = 433$ (M+H) +

[3449] 保留时间: 0.63分钟 (分析条件SQDFA05)

[3450] 化合物aa035、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲基吡啶-3-基)丙酸 (Fmoc-MeAla (3-Pyr-5-Me)-OH) 的合成



[3452] 将化合物aa033-e (1-O-叔丁基4-O- (1,3-二氧代异吲哚-2-基) (2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁二酸酯) (2.0g, 3.51mmol) 和3-溴-5-甲基吡啶作为原料, 利用与化合物aa033-f的合成相同的方法得到化合物aa035-a (0.49g, 29.6%)。

[3453] LCMS (ESI) $m/z = 473$ (M+H) +

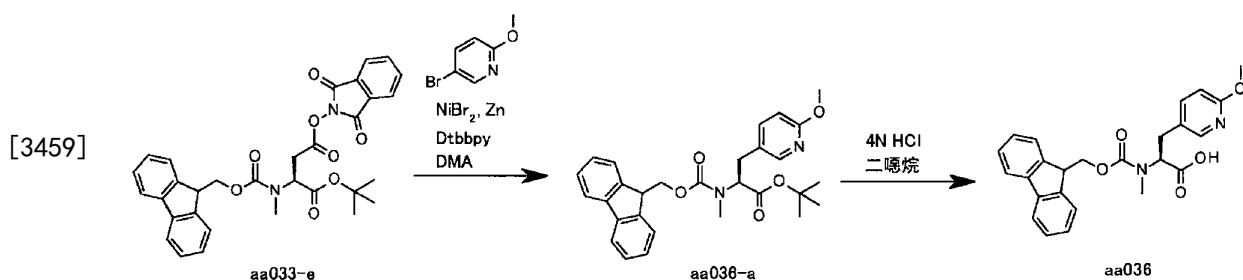
[3454] 保留时间: 0.78分钟 (分析条件SQDFA05)

[3455] 将化合物aa035-a (1.03g, 2.18mmol) 作为原料, 利用与化合物aa033的合成相同的方法得到化合物aa035 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(5-甲基吡啶-3-基)丙酸、Fmoc-MeAla (3-Pyr-5-Me)-OH) (1.14g, quant.)

[3456] LCMS (ESI) $m/z = 417$ (M+H) +

[3457] 保留时间: 0.60分钟 (分析条件SQDFA05)

[3458] 化合物aa036、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲氧基吡啶-3-基)丙酸 (Fmoc-MeAla (3-Pyr-4-OMe)-OH) 的合成



[3460] 将化合物aa033-e (1-0-叔丁基4-0-(1,3-二氧代异吲哚-2-基) (2S) -2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁二酸酯) (2.0g, 3.51mmol) 和5-溴-2-甲氧基吡啶作为原料, 利用与化合物aa033-f的合成相同的方法得到化合物aa036-a (752mg, 43.9%)。

[3461] LCMS (ESI) $m/z = 489$ (M+H) +

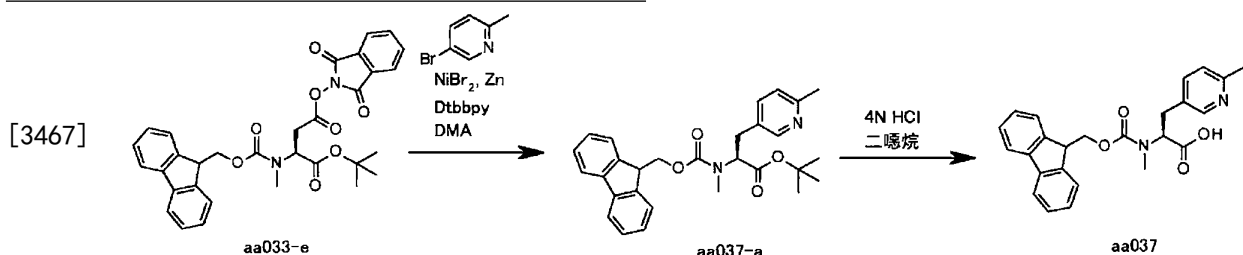
[3462] 保留时间: 1.08分钟 (分析条件SQDFA05)

[3463] 将化合物aa036-a (752mg, 1.539mmol) 作为原料, 利用与化合物aa033的合成相同的方法得到化合物aa036 ((2S) -2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲氧基吡啶-3-基) 丙酸、Fmoc-MeAla (3-Pyr-4-OMe) -OH) (715mg, 99%)

[3464] LCMS (ESI) $m/z = 433$ (M+H) +

[3465] 保留时间: 0.82分钟 (分析条件SQDFA05)

[3466] 化合物aa037、(2S) -2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲基吡啶-3-基) 丙酸 (Fmoc-MeAla (3-Pyr-4-Me) -OH) 的合成



[3468] 将化合物aa033-e (1-0-叔丁基4-0-(1,3-二氧代异吲哚-2-基) (2S) -2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁二酸酯) (2.0g, 3.51mmol) 和5-溴-2-甲基吡啶作为原料, 利用与化合物aa033-f的合成相同的方法得到粗产物, 利用硅胶柱色谱 (己烷/乙酸乙酯) 纯化所述得到的粗产物, 获得化合物aa037-a (780mg, 47.1%)。

[3469] LCMS (ESI) $m/z = 473$ (M+H) +

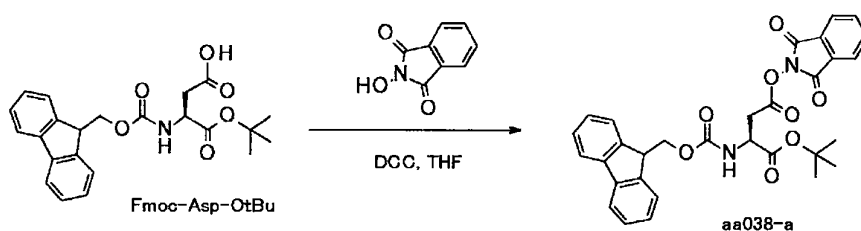
[3470] 保留时间: 0.73分钟 (分析条件SQDFA05)

[3471] 将化合物aa037-a (780mg, 1.65mmol) 作为原料, 利用与化合物aa033的合成相同的方法得到化合物aa037 ((2S) -2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(6-甲基吡啶-3-基) 丙酸、Fmoc-MeAla (3-Pyr-4-Me) -OH) (686mg, 92%)

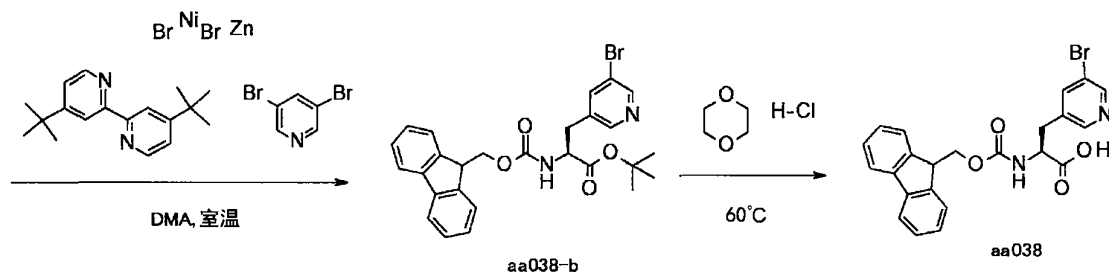
[3472] LCMS (ESI) $m/z = 417$ (M+H) +

[3473] 保留时间: 0.56分钟 (分析条件SQDFA05)

[3474] 化合物aa038、(2S) -3-(5-溴吡啶-3-基) -2-[9H-芴-9-基甲氧基羰基氨基] 丙酸 (Fmoc-Ala (3-Pyr-5-Br) -OH) 的合成



[3475]



[3476] 将Fmoc-Asp-OtBu ((3S)-3-[9H-芴-9-基甲氧基羰基氨基]-4-[(2-甲基丙烷-2-基)氧基]-4-氧代丁酸、CAS号129460-09-9) (300g, 729mmol) 和N-羟基邻苯二甲酰亚胺 (130.8g, 801.8mmol) 加入到THF (3L) 中, 进一步加入DCC (181.8g, 1.1mmol), 在室温下搅拌3小时。在减压下从反应液中蒸馏除去溶剂, 向残渣中加入甲苯而将固形物过滤除去。在减压下从滤液中蒸馏除去溶剂, 利用硅胶柱色谱(己烷/乙酸乙酯) 纯化所得的残渣, 得到化合物aa038-a (272g, 67%)。

[3477] LCMS (ESI) $m/z = 578.7$ (M+Na) +

[3478] 保留时间: 1.728分钟 (分析条件SMDmethod_08)

[3479] 将化合物aa038-a (2.6g, 4.67mmol) 和3,5-二溴吡啶作为原料, 利用与化合物aa033-f的合成相同的方法得到化合物aa038-b (722mg, 30%)

[3480] LCMS (ESI) $m/z = 523$ (M+H) +

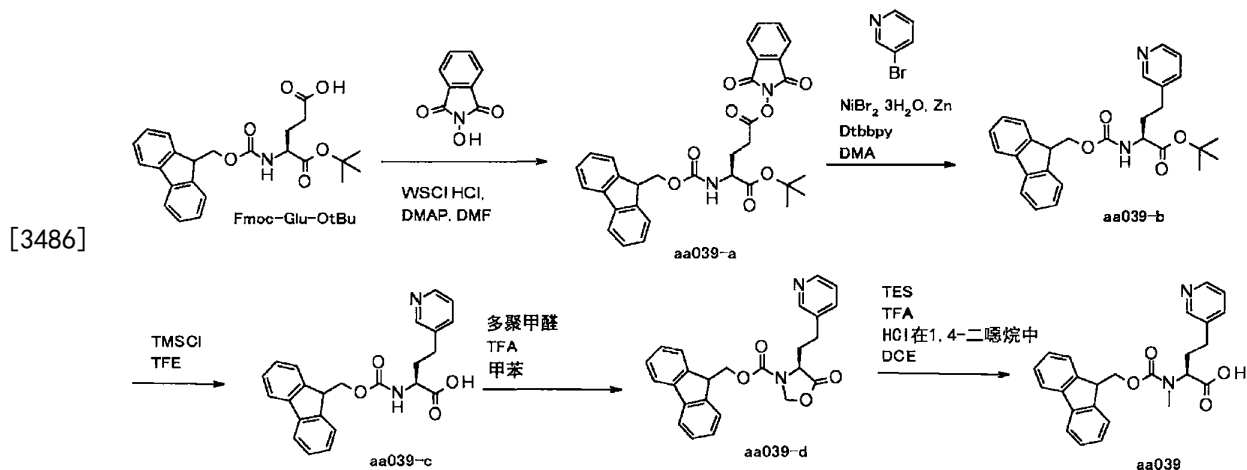
[3481] 保留时间: 1.08分钟 (分析条件SQDFA05)

[3482] 使用化合物aa038-b (722mg, 1.379mmol), 利用与化合物aa033的合成相同的方法得到化合物aa038的浓缩物。将所得的浓缩物利用反相色谱(乙腈/蒸馏水) 纯化, 得到化合物aa038 ((2S)-3-(5-溴吡啶-3-基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸、(Fmoc-Ala (3-Pyr-5-Br) -OH) (300mg, 40%)。

[3483] LCMS (ESI) $m/z = 467$ (M+H) +

[3484] 保留时间: 0.77分钟 (分析条件SQDFA05)

[3485] 化合物aa039、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-3-基丁酸 (Fmoc-MeAbu (3-Pyr) -OH) 的合成



[3487] 将Fmoc-Glu-OtBu ((4S)-4-(9H-芴-9-基甲氧基羰基氨基)-5-[(2-甲基丙烷-2-基)氧基]-5-氧代戊酸、CAS号84793-07-7) (175g, 411mmol)、N-羟基邻苯二甲酰亚胺 (67.1g, 411mmol)、WSCl·HCl (78.85g, 411mmol) 和DMAP (2.51g, 20.6mmol) 加入到DMF (2L) 中, 在室温下搅拌16小时。向反应液中加入1mol/L盐酸水溶液, 用TBME萃取。混合有机层, 依次用水、饱和碳酸氢钠水溶液/水 (1/1)、饱和食盐水洗涤, 用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂。利用硅胶柱色谱 (乙酸乙酯/石油醚, 0/100~30/70) 纯化所得的残渣, 得到化合物aa039-a ((1-O-叔丁基5-O-(1,3-二氧代异吲哚-2-基) (2S)-2-(9H-芴-9-基甲氧基羰基氨基) 戊二酸酯) (105g, 45%)。

[3488] LCMS (ESI) $m/z = 593.5 (M+Na)^+$

[3489] 保留时间: 2.374分钟 (分析条件SMDmethod_09)

[3490] $^1\text{H-NMR}$ (300MHz, DMSO- d_6) δ 8.00-7.91 (m, 4H), 7.85 (dd, $J = 23.0, 7.6\text{Hz}$, 3H), 7.75 (d, $J = 7.4\text{Hz}$, 2H), 7.75-7.32 (m, 4H), 4.60-4.31 (m, 2H), 4.30-4.02 (m, 2H), 3.01-2.74 (m, 2H), 2.26-1.86 (m, 2H), 1.41 (s, 9H)。

[3491] 在氮气气氛下, 将溴化镍 ($\text{NiBr}_2 \cdot 3\text{H}_2\text{O}$) (0.716g, 2.63mmol) 和4,4'-二叔丁基-2,2'-联吡啶 (0.706g, 2.63mmol) 溶解于DMA (40mL) 中, 制备Ni溶液。

[3492] 在氮气气氛下, 向化合物aa039-a (5.0g, 8.76mmol)、锌粉 (2.86g, 43.8mmol) 和3-溴吡啶 (2.55mL, 26.3mmol) 中加入DMA (40mL) 后, 添加之前制备的Ni溶液, 在室温下搅拌14小时。然后, 用TBME (150mL) 稀释反应液, 用EDTA水溶液 (16g溶解于250mL水中) 洗涤所得的TBME/DMA溶液, 接着用饱和碳酸钠水溶液/水 (1/1, 80毫升) 洗涤。将有机层用无水硫酸钠干燥, 过滤后减压浓缩。利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化所得的残渣, 并将分离组分冷冻干燥, 得到化合物aa039-b (2.5g, 62.2%)。

[3493] LCMS (ESI) $m/z = 459 (M+H)^+$

[3494] 保留时间: 0.69分钟 (分析条件SQDFA05)

[3495] 将得到的化合物aa039-b (2.5g, 5.45mmol) 溶解于TFE (27.3mL) 中, 加入TMSCl (2.1mL, 16.4mmol)。将反应液在室温下搅拌1小时后, 将反应液减压浓缩。实施3次将所得残渣溶解于TBME (1mL)、浓缩的操作, 得到目标化合物aa039-c的粗产物 (2.38g, 99%)。

[3496] LCMS (ESI) $m/z = 403.2 (M+H)^+$

[3497] 保留时间: 0.51分钟 (分析条件SQDFA05)

[3498] 将得到的化合物aa039-c (2.38g, 5.42mmol) 和多聚甲醛 (0.488g, 16.3mmol) 溶解

于甲苯 (6.57mL) 中, 加入 TFA (3.76mL, 48.8mmol), 升温至 40℃。将反应液在 40℃ 搅拌 5 小时, 冷却至室温。将反应液的减压浓缩后的残渣溶解于乙酸乙酯 (20mL) 中, 用饱和碳酸钠水溶液 (20mL) 洗涤, 接着用饱和食盐水 (20mL) 洗涤。将有机层用无水硫酸钠干燥、过滤后, 减压浓缩。利用正相柱色谱 (己烷/乙酸乙酯) 纯化残渣, 将所得分离组分浓缩, 得到目标化合物 aa039-d (1.33g, 59%)。

[3499] LCMS (ESI) $m/z = 415 (M+H)^+$

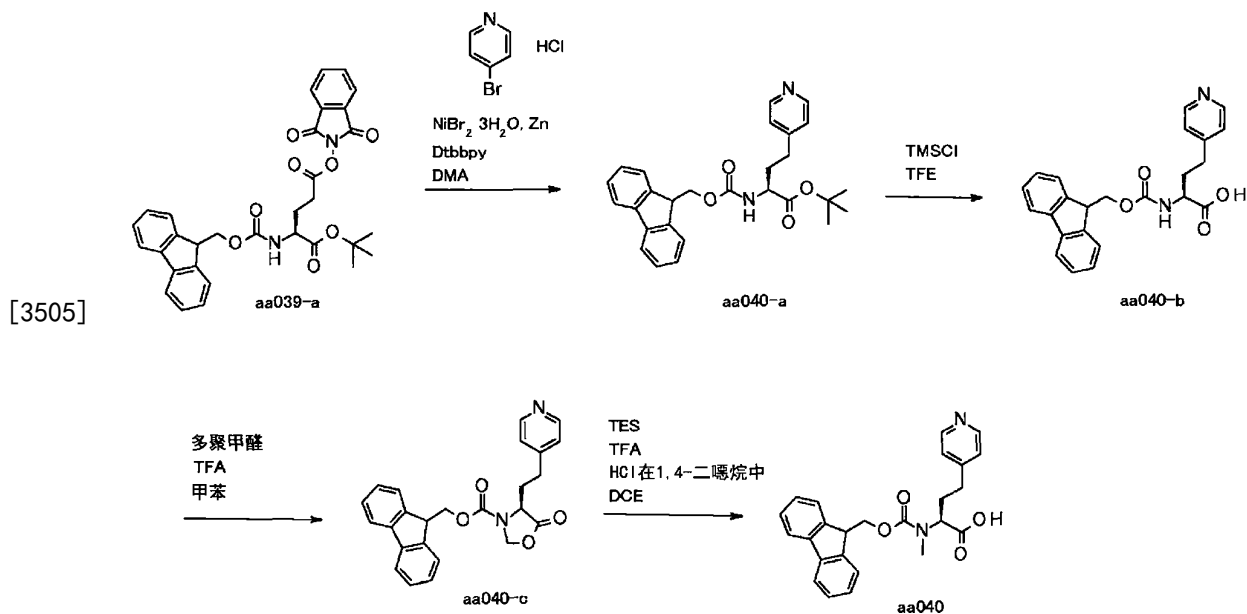
[3500] 保留时间: 0.58 分钟 (分析条件 SQDFA05)

[3501] 将得到的化合物 aa039-d (1.33g, 3.21mmol) 溶解于二氯乙烷 (DCE) (6.7mL)、HCl/1,4-二噁烷 (4N, 6.9mL) 中, 加入三乙基硅烷 (4.58mL, 28.9mmol), 接着加入 TFA (6.68mL, 87mmol)。将反应液升温至 70℃, 搅拌 2 小时。将反应液冷却至室温后, 减压浓缩, 将残渣利用反相柱色谱 (含 0.05% TFA 的乙腈/含 0.05% TFA 的蒸馏水) 纯化, 将分离组分冷冻干燥。为了将所得的 TFA 盐脱盐, 利用反相柱色谱 (乙腈/蒸馏水) 纯化, 得到化合物 aa039 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-3-基丁酸、Fmoc-MeAbu (3-Pyr)-OH) (1.01g, 69.5%)。

[3502] LCMS (ESI) $m/z = 417 (M+H)^+$

[3503] 保留时间: 0.52 分钟 (分析条件 SQDFA05)

[3504] 化合物 aa040、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-4-基丁酸 (Fmoc-MeAbu (4-Pyr)-OH) 的合成



[3506] 在氮气气氛下, 将溴化镍 ($\text{NiBr}_2 \cdot 3\text{H}_2\text{O}$) (0.615g, 2.26mmol) 和 4,4'-二叔丁基-2,2'-联吡啶 (0.605g, 2.26mmol) 溶解于 DMA (37mL) 中, 制备 Ni 溶液。

[3507] 通过将 4-溴吡啶盐酸盐 (4.39g, 22.6mmol) 溶解于甲苯 (10mL)、5N 氢氧化钠水溶液 (5mL)、水 (5mL) 中, 由此实施脱盐操作, 将有机层制备成 4-溴吡啶溶液。

[3508] 在氮气气氛下, 将化合物 aa039-a ((1-O-叔丁基 5-O-(1,3-二氧代异吲哚-2-基) (2S)-2-(9H-芴-9-基甲氧基羰基氨基) 戊二酸酯) (4.3g, 7.52mmol)、锌粉 (2.46g, 37.6mmol) 加入到 DMA (37mL) 中进行搅拌。加入之前制备的 4-溴吡啶溶液 (10mL, 22.6mmol), 接着加入之前制备的 Ni 溶液, 在室温下搅拌 14 小时。然后, 用 TBME (150mL) 稀释反应液, 用

EDTA • 2Na水溶液(16g溶解于250mL水中)洗涤所得的TBME/DMA溶液,接着用饱和碳酸钠水溶液/水(1/1,80毫升)洗涤。将有机层用无水硫酸钠干燥,过滤后减压浓缩。利用硅胶柱色谱(己烷/乙酸乙酯)纯化所得的残渣,减压浓缩分离组分,由此得到化合物aa040-a(2.7g,78%)。

[3509] LCMS (ESI) $m/z=459$ (M+H) +

[3510] 保留时间:0.65分钟(分析条件SQDFA05)

[3511] 将化合物aa040-a(2.7g,5.89mmol)作为原料,利用与化合物aa039-c的合成相同的方法得到化合物aa040-b(2.7g,quant.)。

[3512] LCMS (ESI) $m/z=401$ (M-H) -

[3513] 保留时间:0.55分钟(分析条件SQDFA05)

[3514] 将化合物aa040-b(2.55g,5.81mmol)作为原料,利用与化合物aa039-d的合成相同的方法得到化合物aa040-c(1.8g,75%)。

[3515] LCMS (ESI) $m/z=415$ (M+H) +

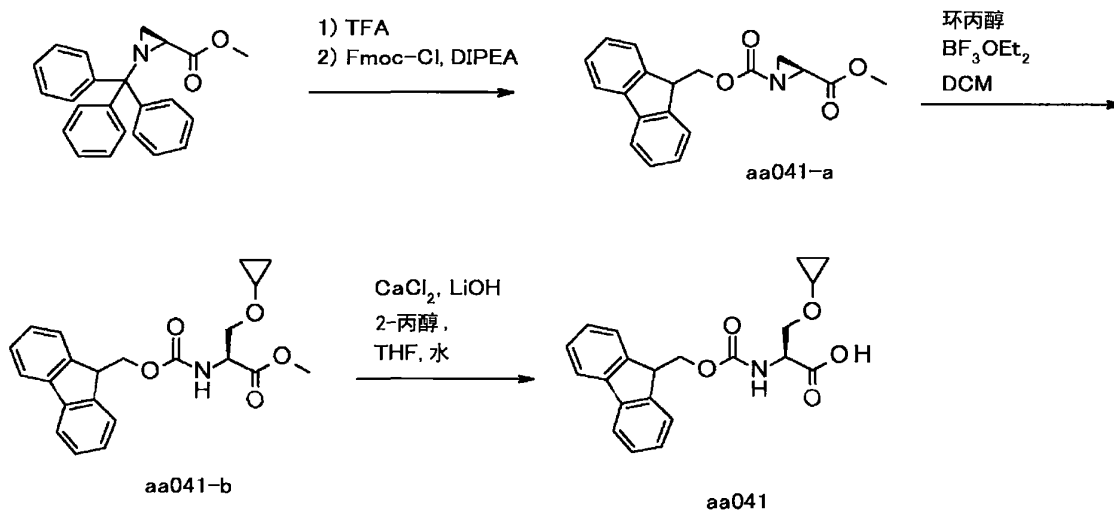
[3516] 保留时间:0.55分钟(分析条件SQDFA05)

[3517] 将化合物aa040-c(1.81g,4.37mmol)作为原料,利用与化合物aa039的合成相同的方法得到化合物aa040((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吡啶-4-基丁酸、Fmoc-MeAbu(4-Pyr)-OH)(860mg,47%)。

[3518] LCMS (ESI) $m/z=417$ (M+H) +

[3519] 保留时间:0.51分钟(分析条件SQDFA05)

[3520] 化合物aa041、(2S)-3-环丙氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸(Fmoc-Ser(cPr)-OH)的合成



[3522] 将(S)-N-三苯甲基氮杂环丙烷-2-甲酸甲酯(CAS号75154-68-6)(50g,146mmol)添加到氯仿(145mL)和甲醇(145mL)的混合溶液中,在氮气气氛下于0℃以滴加的方式加入三氟乙酸(TFA)(33mL,3当量),搅拌7小时。在0℃下向该反应液中加入DIPEA(127mL,5当量),再以滴加的方式加入芴基甲氧基羰基氯(Fmoc-Cl)(36g,139mmol)的1,4-二噁烷(145mL)溶液,在氮气气氛下于0℃搅拌90分钟。将反应液减压浓缩,用乙酸乙酯稀释后,依次用水、氯化铵水溶液、碳酸氢钠水溶液、饱和食盐水洗涤。将得到的有机层用无水硫酸钠干燥后,减压下蒸馏除去溶剂,将所得残余物利用硅胶柱色谱(乙酸乙酯/石油醚,0/100~10/90)纯

化,得到化合物aa041-a (1-0-(9H-芴-9-基甲基)2-0-甲基(2S)-氮丙啶-1,2-二甲酸酯) (40g,85%)。

[3523] LCMS (ESI) $m/z=323.9$ (M+H) +

[3524] 保留时间:2.631分钟(分析条件SMDmethod_10)

[3525] 在氮气气氛下,将化合物aa041-a (1-0-(9H-芴-9-基甲基)2-0-甲基(2S)-氮丙啶-1,2-二甲酸酯) (5g,15.46mmol) 溶解于DCM (30.9mL) 中,加入环丙醇 (1.665mL,26.3mmol) 后,在冰冷却下加入三氟化硼乙醚络合物($\text{BF}_3 \cdot \text{OEt}_2$) (0.291mL,2.319mmol)。在冰冷却下反应2小时后,向反应液中加入水以及饱和碳酸氢钠水溶液来停止反应,用分相器除去水层,将有机层减压浓缩。利用柱色谱(正己烷/乙酸乙酯=4/1)纯化所得残渣,得到化合物aa041-b (4.6g,78%)。

[3526] LCMS (ESI) $m/z=382$ (M+H) +

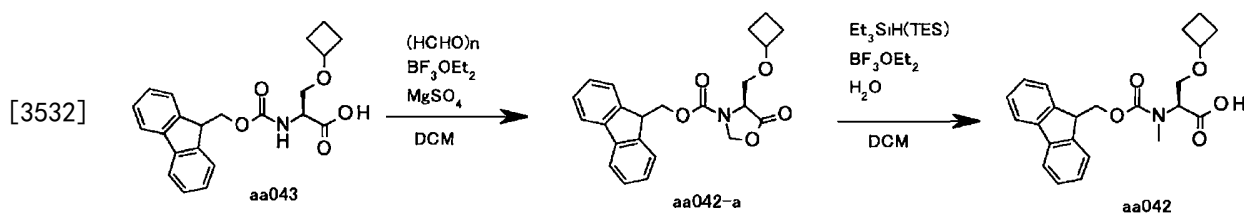
[3527] 保留时间:0.89分钟(分析条件SQDFA05)

[3528] 将氯化钙 (20.08g,181mmol) 溶解于水 (50.2mL) 中,加入氢氧化锂一水合物 (2.024g,48.2mmol),在室温下搅拌5分钟,制备水溶液A。将化合物aa041-b (4.6g,12.06mmol) 溶解于异丙醇 (201mL) 和THF (50.2mL) 中,添加之前制备的水溶液A,在室温下搅拌5小时。然后向反应液中加入1mol/L盐酸水溶液 (36.2mL),然后利用减压浓缩除去异丙醇和THF。将所得水层用水 (50.2mL) 稀释,用乙酸乙酯萃取3次(总量:100mL)。将有机层用水和饱和食盐水洗涤,用无水硫酸钠干燥,过滤后将滤液减压浓缩。将所得残渣用乙酸乙酯/正己烷 (1/2,20v/w) 洗涤,由此得到标题化合物aa041 ((2S)-3-环丙氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Ser (cPr) -OH) (3.5g,79%)。

[3529] LCMS (ESI) $m/z=368$ (M+H) +

[3530] 保留时间:0.78分钟(分析条件SQDFA05)

[3531] 化合物aa042、(2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基(甲基)氨基)丙酸 (Fmoc-MeSer (cBu) -OH) 的合成



[3533] 将化合物aa043 ((2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸) (10.61g,27.8mmol) 作为起始原料,利用与化合物aa069-b的合成相同的方法得到化合物aa042-a的粗产物。

[3534] LCMS (ESI) $m/z=394.5$ (M+H) +

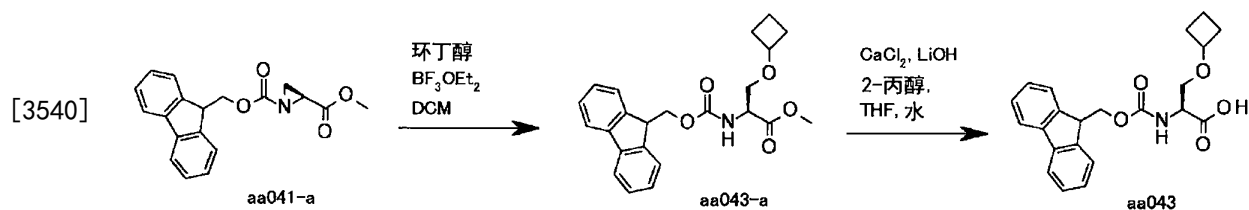
[3535] 保留时间:1.01分钟(分析条件SQDFA05)

[3536] 使用通过上述得到的化合物aa042-a的全部量,利用与化合物aa069的合成相同的方法得到化合物aa042 ((2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基(甲基)氨基)丙酸、Fmoc-MeSer (cBu) -OH) (10.6g,2个工序96%)。

[3537] LCMS (ESI) $m/z=396$ (M+H) +

[3538] 保留时间:0.87分钟(分析条件SQDFA05)

[3539] 化合物aa043、(2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸(Fmoc-Ser(cBu)-OH)的合成



[3541] 将化合物aa041-a (1-0-(9H-芴-9-基甲基)2-0-甲基(2S)-氮丙啶-1,2-二甲酸酯)(5g, 15.46mmol)和环丁醇作为原料,利用与化合物aa041-b的合成相同的方法得到化合物aa043-a (4.54g, 74.2%)。

[3542] LCMS (ESI) m/z = 396 (M+H) +

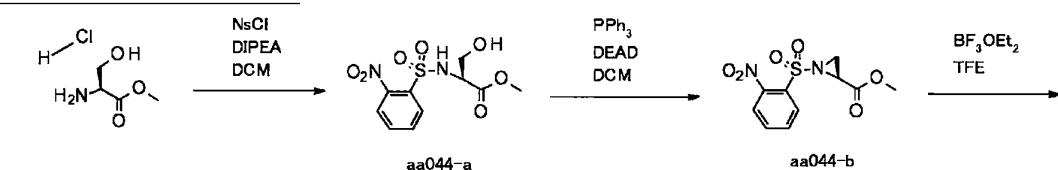
[3543] 保留时间:0.94分钟(分析条件SQDFA05)

[3544] 将化合物aa043-a (4.54g, 11.48mmol)作为原料,利用与化合物aa041的合成相同的方法得到化合物aa043((2S)-3-环丁氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Ser(cBu)-OH) (3.78g, 86%)。

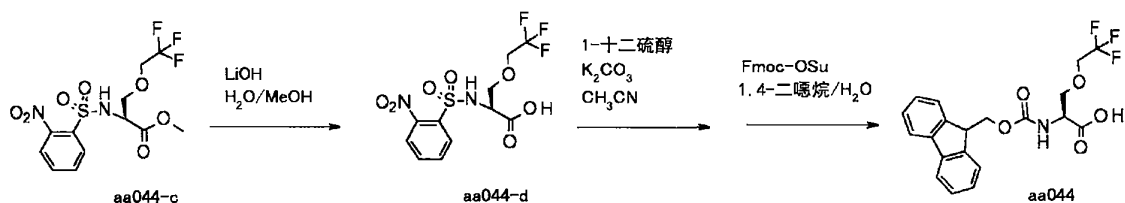
[3545] LCMS (ESI) m/z = 382 (M+H) +

[3546] 保留时间:0.82分钟(分析条件SQDFA05)

[3547] 化合物aa044、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸(Fmoc-Ser(Tfe)-OH)的合成



[3548]



[3549] 将2-硝基苯磺酰氯(NsCl)(32.37g, 146mmol)和L-丝氨酸甲酯盐酸盐(25g, 161mmol, CAS号5680-80-8)溶解于DCM(874mL),在5℃下加入DIPEA(51mL, 292mmol)。在室温搅拌1小时后用水(440mL)洗涤2次,用饱和食盐水/水(1/1, 440mL)洗涤1次,然后用硫酸镁干燥。滤去硫酸镁后,在减压下进行浓缩得到化合物aa044-a的粗产物(39.4g, 89%)。

[3550] LCMS (ESI) m/z = 302.9 (M-H) -

[3551] 保留时间:0.729分钟(分析条件SMDmethod_06)

[3552] 将化合物aa044-a (23g, 75.6mmol)溶解于DCM(598mL)中,室温下加入三苯基膦(31.7g, 121mmol)。冷却至-14℃后历时10分钟加入DEAD(55.0mL, 121mmol),然后在-5℃下搅拌50分钟。加入正己烷(300mL),滤去析出物。利用硅胶柱色谱(正己烷/DCM=50:50~0:100)纯化滤液,得到化合物aa044-b(13.3g, 62%)。

[3553] LCMS (ESI) m/z = 287 (M+H) +

[3554] 保留时间:0.872分钟(分析条件SMDmethod_06)

[3555] 将化合物aa044-b(10.7g,37.3mmol)溶解于TFE(75mL)中,加入三氟化硼乙醚络合物($\text{BF}_3 \cdot \text{OEt}_2$)(0.469mL,3.73mmol)之后在70℃搅拌30分钟。减压下蒸馏除去TFE,利用反相色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)对得到的粗产物进行纯化,得到化合物aa044-c(12.3g,85%)。

[3556] LCMS (ESI) $m/z = 387$ (M+H) +

[3557] 保留时间:0.72分钟(分析条件SQDFA05)

[3558] 将化合物aa044-c(12g,31.1mmol)溶解于甲醇(47mL)中,加入氢氧化锂一水合物(5.21g,124mmol)的水溶液(31mL)。在室温下搅拌90分钟后加入甲酸(11.7mL,311mmol),用水(30mL)稀释后利用反相色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化,得到化合物aa044-d(7.90g,68%)。

[3559] LCMS (ESI) $m/z = 373$ (M+H) +

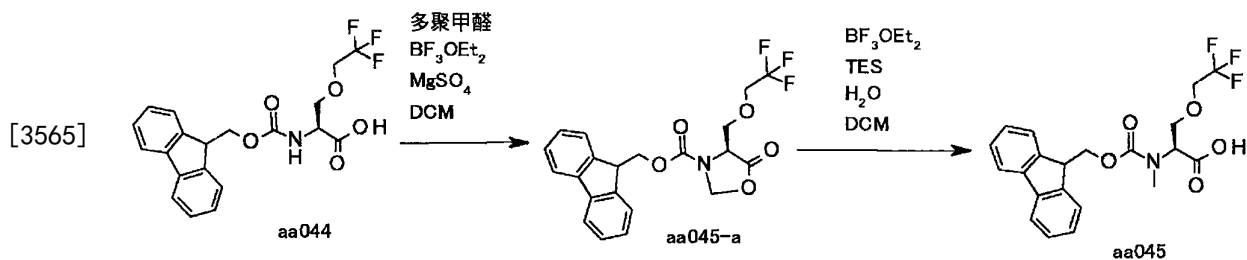
[3560] 保留时间:0.63分钟(分析条件SQDFA05)

[3561] 将化合物aa044-d(7.72g,20.7mmol)溶解于乙腈(104mL)中,加入碳酸钾(7.17g,51.8mmol)和十二烷硫醇(7.44mL,31.1mmol)之后,在室温下搅拌74小时。将其用水(100mL)稀释,用TBME(200mL)洗涤2次。向所得水溶液中加入Fmoc-OSu(3.5g)的1,4-二噁烷(150mL)溶液并搅拌25分钟。进一步加入Fmoc-OSu(700mg)的1,4-二噁烷(10mL)溶液,搅拌5分钟。进一步加入Fmoc-OSu(350mg)的1,4-二噁烷(5mL)溶液,搅拌5分钟。进一步加入Fmoc-OSu(350mg)的1,4-二噁烷(5mL)溶液搅拌5分钟后加入甲酸(3.9mL),在减压下蒸馏除去溶剂。利用反相色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得粗产物,得到化合物aa044((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2,2,2-三氟乙氧基)丙酸、Fmoc-Ser(Tfe)-OH)(5.67g,67%)。

[3562] LCMS (ESI) $m/z = 410$ (M+H) +

[3563] 保留时间:2.35分钟(分析条件SQDFA05long)

[3564] 化合物aa045、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸(Fmoc-MeSer(Tfe)-OH)的合成



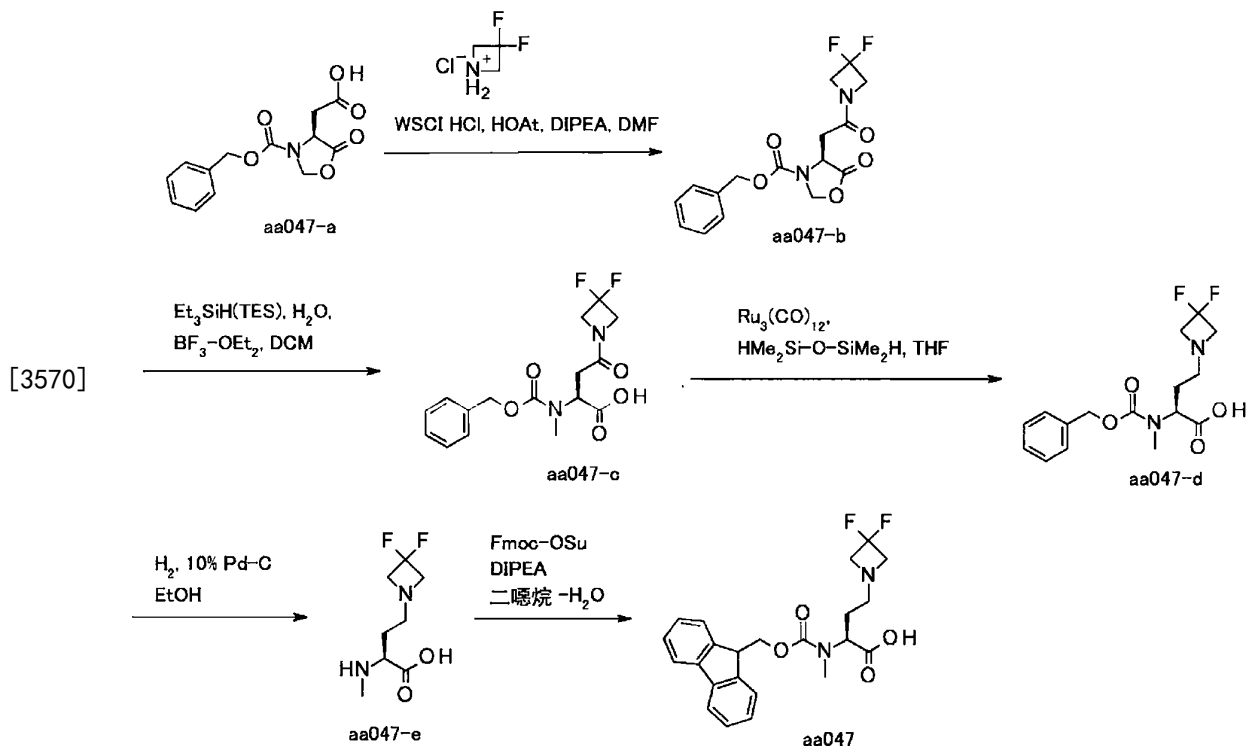
[3566] 将化合物aa044(2.00g,4.89mmol)作为起始原料,利用与化合物aa069-b的合成相同的方法得到化合物aa045-a的粗产物。进一步利用与化合物aa069的合成相同的方法得到化合物aa045((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2,2,2-三氟乙氧基)丙酸、Fmoc-MeSer(Tfe)-OH)(1.80g,2个工序87%)。

[3567] LCMS (ESI) $m/z = 424$ (M+H) +

[3568] 保留时间:0.84分钟(分析条件SQDFA05)

[3569] 化合物aa047、(2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基

(甲基氨基]丁酸 (Fmoc-MeAbu (Aze-3-F2) -OH) 的合成



[3571] 在氮气气氛、室温下,将DMF (14mL) 加入到WSCI·HCl (1.65g, 8.59mmol) 中进行搅拌并在冰浴中进行冷却。添加HOAt (1.07g, 7.88mmol) 和化合物aa047-a ((S)-(+)-3-(苄氧基羰基)-5-氧代-4-噁唑烷乙酸) (2g, 7.16mmol) 之后,在相同温度下搅拌20分钟。添加3,3-二氟氮杂环丁烷盐酸盐 (1.02g, 7.88mmol) 和DIPEA (1.25mL, 7.16mmol) 并在相同温度下搅拌6小时。向反应混合物中添加己烷/乙酸乙酯 (1/1, 20mL) 和硫酸氢钾 (0.5M水溶液, 30mL)。用乙酸乙酯萃取2次,并将有机层用水 (40mL)、饱和碳酸氢钠水溶液/水 (1/1, 40mL) 和饱和食盐水/水 (1/1, 40mL) 洗涤。将利用硫酸钠干燥后的有机层减压浓缩,得到化合物aa047-b (2.52g, 99%)。粗产物化合物aa047-b不经过纯化地进入下一个工序。

[3572] LCMS (ESI) $m/z = 355 (M+H)^+$

[3573] 保留时间: 0.66分钟 (分析条件SQDFA05)

[3574] 将化合物aa047-b (2.5g, 7.06mmol) 在氮气气氛、室温下溶解于DCM (15mL) 中,添加三乙基硅烷 (TES) (3.38mL, 21.17mmol)、水 (127 μ L, 7.06mmol), 并滴加三氟化硼乙醚络合物 ($BF_3 \cdot OEt_2$) (1.79mL, 14.11mmol)。将反应混合物在室温下搅拌2小时45分钟后,添加饱和和氯化铵水溶液/水 (1/1, 6mL)。将混合物搅拌10分钟后用DCM萃取,将有机层用饱和氯化铵水溶液/水 (1/1, 8mL) 和饱和食盐水/水 (1/1, 8mL) 洗涤。将利用硫酸钠干燥后的有机层减压浓缩。将所得粗产物用乙腈进行溶解,用己烷 (5mL) 洗涤2次。将乙腈层减压浓缩所得的粗产物经过反相纯化 (洗脱液: 含有0.1%甲酸的水-乙腈), 得到化合物aa047-c ((2S)-4-(3,3-二氟氮杂环丁烷)-1-基)-2-[甲基(苯基甲氧基羰基)氨基]-4-氧代丁酸) (2.20g, 88%)。

[3575] LCMS (ESI) $m/z = 357 (M+H)^+$

[3576] 保留时间: 0.58分钟 (分析条件SQDFA05)

[3577] 在氮气气氛、室温下,向化合物aa047-c (1.38g, 3.87mmol) 和十二羰基三钌 ($Ru_3(CO)_{12}$) (0.248g, 0.387mmol) 的THF (15mL) 中添加1,1,3,3-四甲基二硅氧烷 (10.27mL,

58.1mmol)。将反应混合物在35℃至40℃之间的温度下搅拌2小时45分钟。将在室温下放置冷却后的反应混合物滴加到在冰浴中冷却搅拌后的2mol/L盐酸水溶液(5mL)中。在相同温度下搅拌25分钟后,将混合物减压浓缩。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化粗产物,得到化合物aa047-d(365.2mg,28%)。

[3578] LCMS (ESI) $m/z=341$ (M-H) -

[3579] 保留时间:0.39分钟(分析条件SQDFA05)

[3580] 在氢气气氛、室温下,将化合物aa047-d(360mg,1.05mmol)和10%钨碳(50w/w%水)(72mg)的乙醇悬浮液搅拌3小时45分钟之后,添加10%钨碳(50w/w%水)(72mg)并在氢气气氛、室温下搅拌15小时15分钟。进一步加入10%钨碳(50w/w%水)(72mg)并在氢气气氛、室温下搅拌10小时。将反应混合物用硅藻土过滤、用乙醇洗涤。减压浓缩所得滤液,得到化合物aa047-e(208.7mg,95%)。粗产物化合物aa047-e不经过纯化地进入下一个工序。

[3581] LCMS (ESI) $m/z=207$ (M-H) -

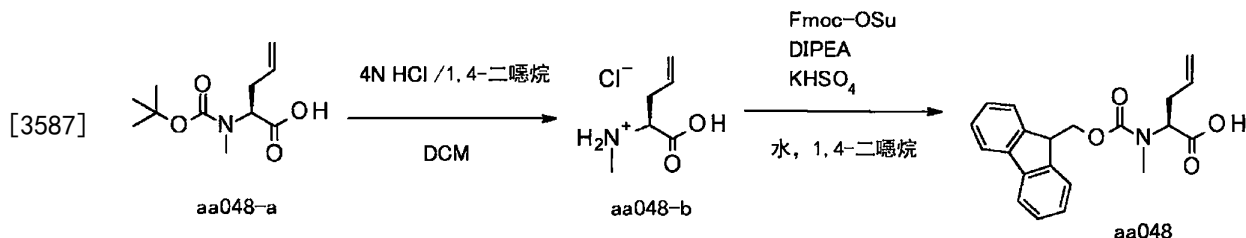
[3582] (分析条件SQDFA05)

[3583] 向化合物aa047-e(205mg,0.985mmol)中添加水(3mL)、DIPEA(0.69mL,3.94mmol)和1,4-二噁烷(3mL)并在室温下进行搅拌。添加Fmoc-OSu(332mg,0.985mmol)并将反应混合物搅拌约40分钟。向反应混合物中加入甲酸(1mL)并利用反相柱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化上述混合物,得到化合物aa047((2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸、Fmoc-MeAbu(Aze-3-F2)-OH)(352.7mg,83%)。

[3584] LCMS (ESI) $m/z=431$ (M+H) +

[3585] 保留时间:0.54分钟(分析条件SQDFA05)

[3586] 化合物aa048、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-烯酸(Fmoc-MeAlgly-OH)的合成



[3588] 向化合物aa048-a((2S)-2-[甲基-[(2-甲基丙烷-2-基)氧羰基]氨基]戊-4-烯酸、Boc-MeAlgly-OH)(1.51g,6.59mmol)的二氯甲烷(6mL)溶液中加入4N盐酸-1,4-二噁烷(8.23mL,32.9mmol),在室温下搅拌3.5小时。将反应液浓缩,得到化合物aa048-b的粗产物(1.55g)。未进行进一步的纯化地进行了下一步反应。

[3589] LCMS (ESI) $m/z=130$ (M+H) +

[3590] 保留时间:0.14分钟(分析条件SQDFA05)

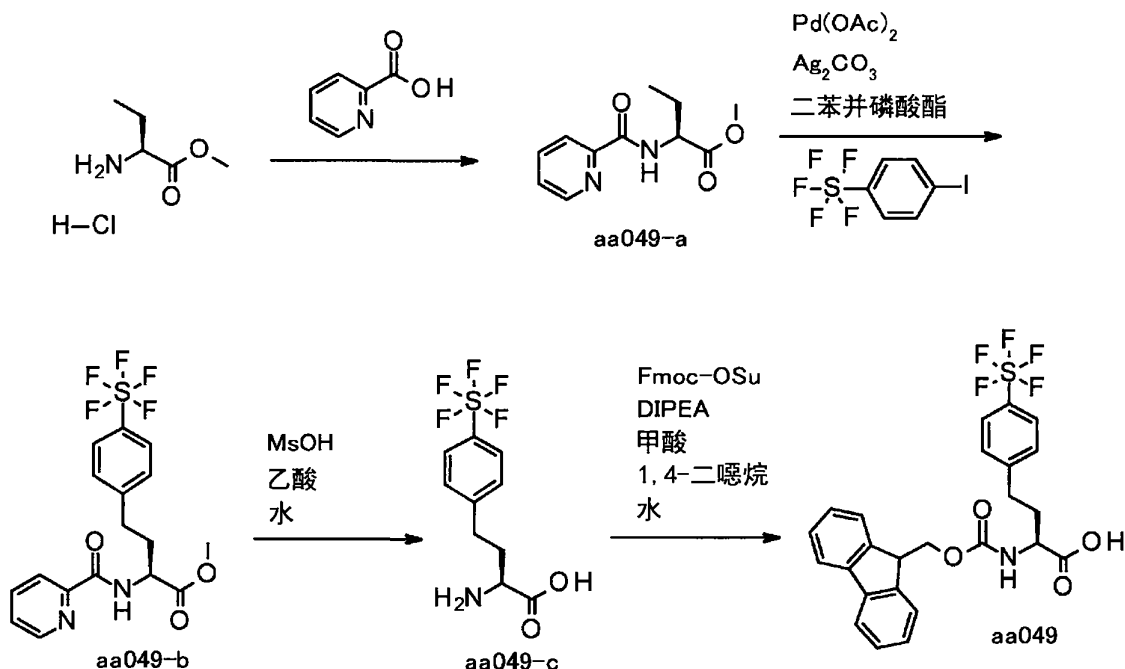
[3591] 将化合物aa048-b(6.59mmol)溶解于水(9mL)中,加入DIPEA(5.17mL,29.7mmol)、1,4-二噁烷(12mL)、Fmoc-OSu(2.223g,6.59mmol),在室温下搅拌30分钟。向反应液中加入水(25mL)、乙醚/正己烷(1/3,18mL),将水层用乙醚/正己烷(1/3,20mL)洗涤2次。向水层中加入硫酸氢钾(KHSO₄)将pH调节至1.4,用乙酸乙酯进行萃取。将有机层用饱和食盐水/水(1/1)洗涤2次并用硫酸钠干燥后在减压下蒸馏除去溶剂。利用反相柱色谱(含有0.1%甲酸

的乙腈/含0.1%甲酸的蒸馏水)纯化所得的粗产物,得到化合物aa048((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-烯酸、Fmoc-MeAlgly-OH)(2.62g,85%)。

[3592] LCMS (ESI) $m/z=352$ (M+H) +

[3593] 保留时间:0.84分钟(分析条件SQDFA05)

[3594] 化合物aa049、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(五氟- λ 6-硫烷基)苯基]丁酸、(Fmoc-Hph(4-SF5)-OH)的合成



[3596] 向L-2-氨基丁酸甲酯盐酸盐(CAS号56545-22-3)(50g,325.51mmol)、吡啶-2-甲酸(44.2g,359.03mmol,1.10当量)和HATU(136.5g,358.99mmol,1.10当量)的DCM(1L)混合液中,室温下以滴加的方式加入DIPEA(161.5mL,3.00当量)并搅拌16小时。向反应液中加入水,用DCM萃取3次。混合有机层,依次用水、饱和食盐水洗涤,用无水硫酸钠干燥后,减压下蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚,0/100~15/85)纯化所得的残渣,得到化合物aa049-a(209g)。

[3597] LCMS (ESI) $m/z=223$ (M+H) +

[3598] 保留时间:1.011分钟(分析条件SMDmethod_11)

[3599] $^1\text{H-NMR}$ (400MHz, DMSO-d_6): 8.87 (d, $J=6.0\text{Hz}$, 1H), 8.70-8.68 (m, 1H), 8.06-8.00 (m, 2H), 7.66-7.63 (m, 1H), 4.49-4.44 (q, 1H), 3.67 (s, 3H), 1.99-1.83 (m, 2H), 0.90 (t, $J=5.7\text{Hz}$, 3H)

[3600] 室温下将化合物aa049-a(1.35g,6.07mmol)、乙酸钯(II) ($\text{Pd}(\text{OAc})_2$, 0.273g, 1.215mmol)、碳酸银(I) (1.675g,6.07mmol)、磷酸二苄酯(0.676g,2.43mmol)、4-碘苯基五氟化硫(CAS号286947-68-0)(5.01g,15.2mmol)、2-甲基-2-丁醇(35mL)混合,在115℃搅拌5小时15分钟。将反应液放置冷却至室温,加入乙酸乙酯并利用硅藻土进行过滤。减压下从滤液中蒸馏除去溶剂,得到化合物aa049-b的粗产物(5.55g)。

[3601] LCMS (ESI) $m/z=425$ (M+H) +

[3602] 保留时间:0.87分钟(分析条件SQDFA05)

[3603] 室温下向化合物aa049-b(2.55g,6mmol当量)的乙酸(8.59mL)混合液中依次加入

甲磺酸 (6.92g, 72mmol)、水 (8.11mL), 在110℃至115℃之间的温度下搅拌24小时。将反应液放置冷却至室温, 减压下浓缩。利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化所得残渣, 得到化合物aa049-c (1.13g, 62%)。

[3604] LCMS (ESI) $m/z = 306$ (M+H) +

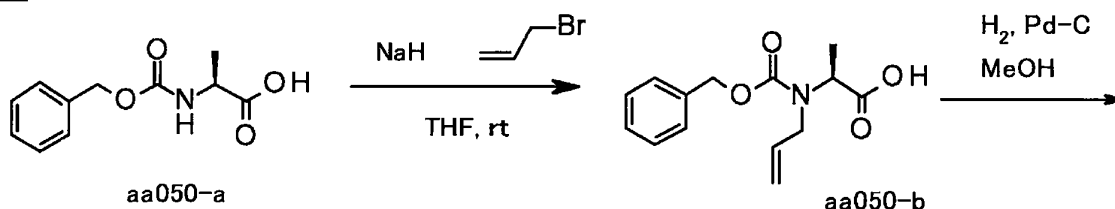
[3605] 保留时间: 0.47分钟 (分析条件SQDFA05)

[3606] 在室温下, 向化合物aa049-c (0.4g, 1.31mmol) 的水溶液 (3mL) 中依次加入DIPEA (0.572mL, 3.28mmol)、1,4-二噁烷 (4mL)、Fmoc-OSu (0.442g, 1.31mmol) 并搅拌1小时。向反应液中加入甲酸, 利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 进行纯化, 得到化合物aa049 ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(五氟- λ 6-硫烷基)苯基]丁酸) (0.564g, 82%)。

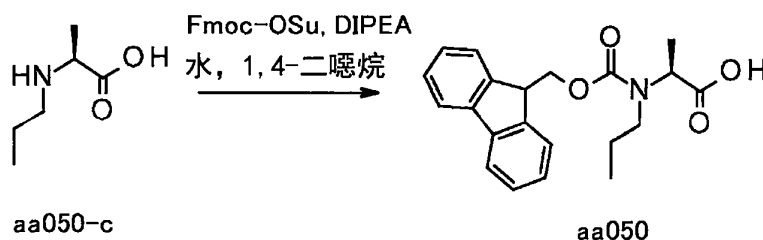
[3607] LCMS (ESI) $m/z = 528$ (M+H) +

[3608] 保留时间: 0.98分钟 (分析条件SQDFA05)

[3609] 化合物aa050、(2S)-2-[9H-芴-9-基甲氧基羰基(丙基)氨基]丙酸、(Fmoc-nPrAla-OH)的合成



[3610]



[3611] 在室温下, 向化合物aa050-a (N-苄氧羰基-L-丙氨酸, Z-Ala-OH, CAS号1142-20-7) (5g, 22.40mmol) 的四氢呋喃 (74.7mL) 溶液中加入烯丙基溴 (4.74mL, 56.0mmol) 之后, 在10℃以下历时15分钟以上加入氢化钠 (2.69g, 67.2mmol)。将反应液在10℃以下搅拌1小时后, 加入四氢呋喃 (THF) (74.7mL), 进一步在室温下搅拌65小时。向反应液中加入饱和氯化铵水溶液、水之后, 用乙酸乙酯进行萃取。合并有机层, 用饱和氯化钠水溶液洗涤后, 用无水硫酸钠干燥, 减压条件下浓缩。利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化所得残渣, 得到化合物aa050-b (3.91g, 66%)。

[3612] LCMS (ESI) $m/z = 264$ (M+H) +

[3613] 保留时间: 0.68分钟 (分析条件SQDFA05)

[3614] 在氢气气氛、室温下, 将化合物aa050-b (3.81g, 14.47mmol) 和10wt%钯碳 (0.41g) 的甲醇 (45mL) 悬浮液搅拌2小时。将反应液用硅藻土进行过滤, 在减压条件下浓缩滤液, 得到化合物aa050-c (1.72g, 91%)。

[3615] LCMS (ESI) $m/z = 132$ (M+H) +

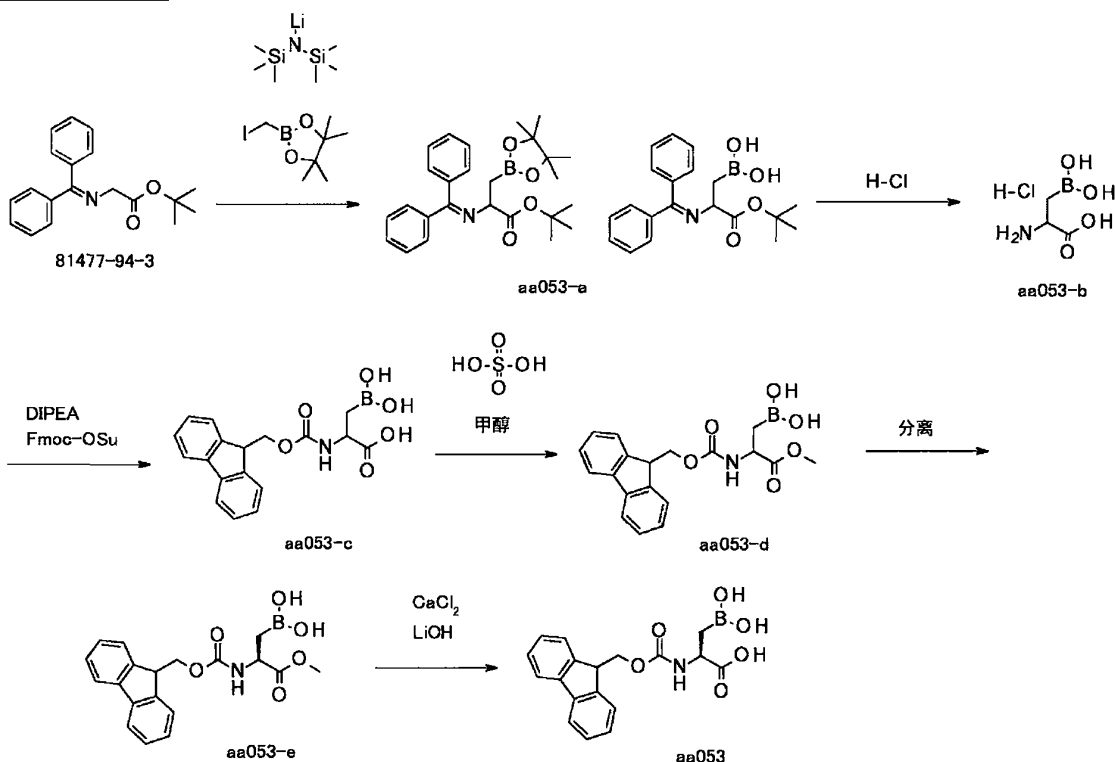
[3616] 保留时间: 0.13分钟 (分析条件SQDFA05)

[3617] 将化合物aa050-c (1.72g, 13.11mmol) 悬浮于水 (45ml) 中, 将DIPEA (10.28ml, 59.0mmol)、1,4-二噁烷 (60ml)、N-(9-苄基甲氧基羰基氧基) 琥珀酰亚胺 (Fmoc-OSu) (4.42g, 13.11mmol) 加入到悬浮液中之后, 室温下搅拌30分钟。将含有20%甲酸的蒸馏水加入到反应液中, 然后在减压条件下进行浓缩, 蒸馏除去1,4-二噁烷, 利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 进行纯化, 得到化合物aa050 ((2S)-2-[9H-苄-9-基甲氧基羰基(丙基)氨基]丙酸, Fmoc-nPrAla-OH) (3.94g, 85%)。

[3618] LCMS (ESI) $m/z = 354 (M+H)^+$

[3619] 保留时间: 0.86分钟 (分析条件SQDFA05)

[3620] 化合物aa053、(2S)-3-二羟硼基-2-(9H-苄-9-基甲氧基羰基氨基)丙酸 (Fmoc-Ala(B(OH)₂)-OH) 的合成



[3622] 在氮气气氛、-78℃下, 历时10分钟向N-(二苯基亚甲基)甘氨酸叔丁酯 (CAS号81477-94-3) (21g, 71.1mmol) 的THF溶液 (237mL) 加入双(三甲基甲硅烷基)酰胺锂 (LHMDS) 的1M THF溶液 (78mL, 78mmol) 之后, 搅拌10分钟。历时10分钟加入2-(碘甲基)-4,4,5,5-四甲基-1,3,2-二氧杂环戊硼烷 (22.9g, 85mmol) 之后, 进一步搅拌1小时。通过加入水 (300mL) 停止反应之后, 将反应液升温至室温, 用乙酸乙酯 (200mL) 萃取。将得到的有机层用饱和食盐水/水 (1/1, 50mL) 洗涤, 用硫酸镁干燥后, 减压蒸馏除去溶剂。所得的含有化合物aa053-a的粗产物不经过纯化操作地用于下一个实验中。

[3623] 向含有化合物aa053-a的粗产物中加入6mol/L盐酸水溶液 (71mL) 之后加热至70℃, 搅拌5小时。将反应液冷却至室温后, 用二氯甲烷 (155mL) 将反应液洗涤2次。所得的含有化合物aa053-b的水层不经过纯化地直接用于下一步反应。

[3624] 在0℃加入6mol/L氢氧化钠水溶液中和含有化合物aa053-b的水层, 然后加入二噁烷 (142mL)、DIPEA (37.2mL, 214mmol) 和Fmoc-OSu (24g, 71mmol) 在室温下搅拌1小时。减压浓缩反应液之后, 用水/乙腈/甲酸 (25/75/0.1) 溶液和DMSO稀释。利用反相色谱 (含有0.1%

甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化后,减压蒸馏除去乙腈,然后冷冻干燥,得到化合物aa053-c (24.8g, 3个工序98%)。

[3625] LCMS (ESI) $m/z = 354$ (M-H) -

[3626] 保留时间:0.83分钟(分析条件SQDAA05)

[3627] 向化合物aa053-c (18g, 50.7mmol) 的甲醇溶液(169mL) 中加入浓硫酸(5.40mL, 101mmol), 在70℃下搅拌30分钟。将反应液冷却至10℃后, 历时30分钟加入水(255mL)。过滤收集所产生的析出物后, 用水(54mL) 洗涤3次。将析出物干燥, 得到化合物aa053-d (17.75g, 95%)。将其与以同样方式合成的另一批混合, 并利用以下手性柱色谱进行纯化。

[3628] LCMS (ESI) $m/z = 392$ (M+Na) +

[3629] 保留时间:0.95分钟(分析条件SQDAA05)

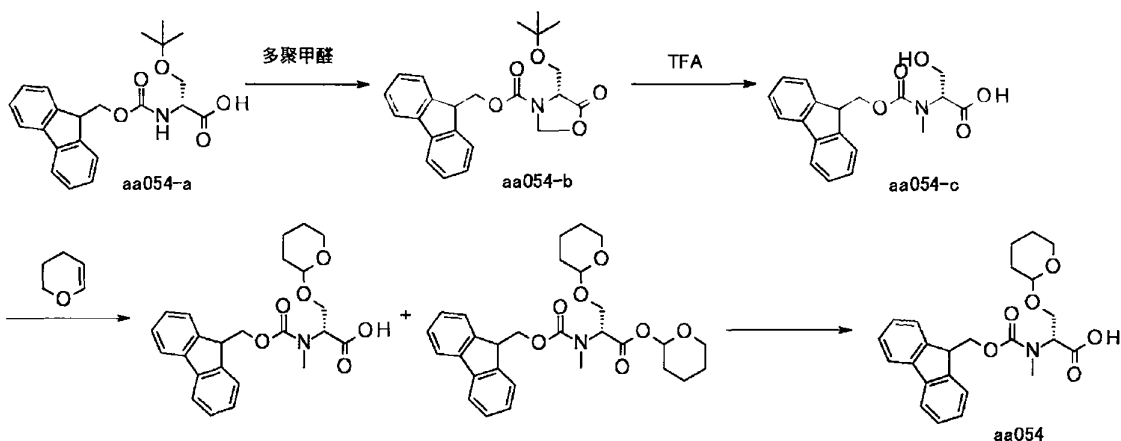
[3630] 利用手性柱色谱(SFCCHIRALPAK AD-H (20mm×250mm), $\text{CO}_2/\text{MeOH} = 75/25$, 15mL/分钟或LC CHIRALPAK OJ-RH (20mm×250mm), 水/乙腈=55/45, 20mL/分钟) 对化合物aa053-d (20.8g) 进行制备纯化, 得到化合物aa053-e (13.8g)。

[3631] 向3mol/L氯化钙水溶液(71.8mL) 中加入氢氧化锂(2.41g, 57.4mmol), 在室温下搅拌5分钟。向得到的水溶液中依次加入异丙醇(240mL)、化合物aa053-f (5.30g, 14.7mmol) 的THF溶液(60mL) 并搅拌1小时。用5M盐酸使反应停止, 用乙酸异丙酯萃取2次, 将所得有机层用硫酸镁进行干燥。将溶液过滤后, 减压蒸馏除去溶剂, 得到化合物aa053 ((2S)-3-二羟甲基-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸、Fmoc-Ala(B(OH)₂)-OH) (5.6g, quant.)。

[3632] LCMS (ESI) $m/z = 354$ (M-H) -

[3633] 保留时间:0.80分钟(分析条件SQDAA05)

[3634] 化合物aa054、(2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(氧杂环己烷-2-基氧) 丙酸(Fmoc-D-MeSer(THP)-OH) 的合成



[3636] 向化合物aa054-a ((2R)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[(2-甲基丙烷-2-基) 氧基] 丙酸、Fmoc-D-Ser(tBu)-OH, 400g, 1.04mol) 中加入甲苯(4L)、多聚甲醛(293g, 9.77mol)、CSA(12.1g, 52.1mmol), 在110℃搅拌4小时。将反应液冷却至室温, 加入水, 用乙酸乙酯萃取。将所得的有机层依次用碳酸氢钠水溶液和饱和食盐水洗涤, 用硫酸钠干燥后减压蒸馏除去溶剂, 得到化合物aa054-b的粗产物(395g)。

[3637] LCMS (ESI) $m/z = 396$ (M+H) +

[3638] 保留时间:2.935分钟(分析条件SMDmethod_12)

[3639] 将化合物aa054-b (100g, 253mmol) 溶解于DCM/TFA (1/1, 2L) 中, 加入三乙基硅烷

(264g, 2.27mol), 在50℃下搅拌4小时。减压下蒸馏除去溶剂, 得到化合物aa054-c的粗产物(96g)。将其与另外合成的另一批混合并用于下一步反应。

[3640] LCMS (ESI) $m/z = 364 (M+Na)^+$

[3641] 保留时间: 2.024分钟 (分析条件SMDmethod_12)

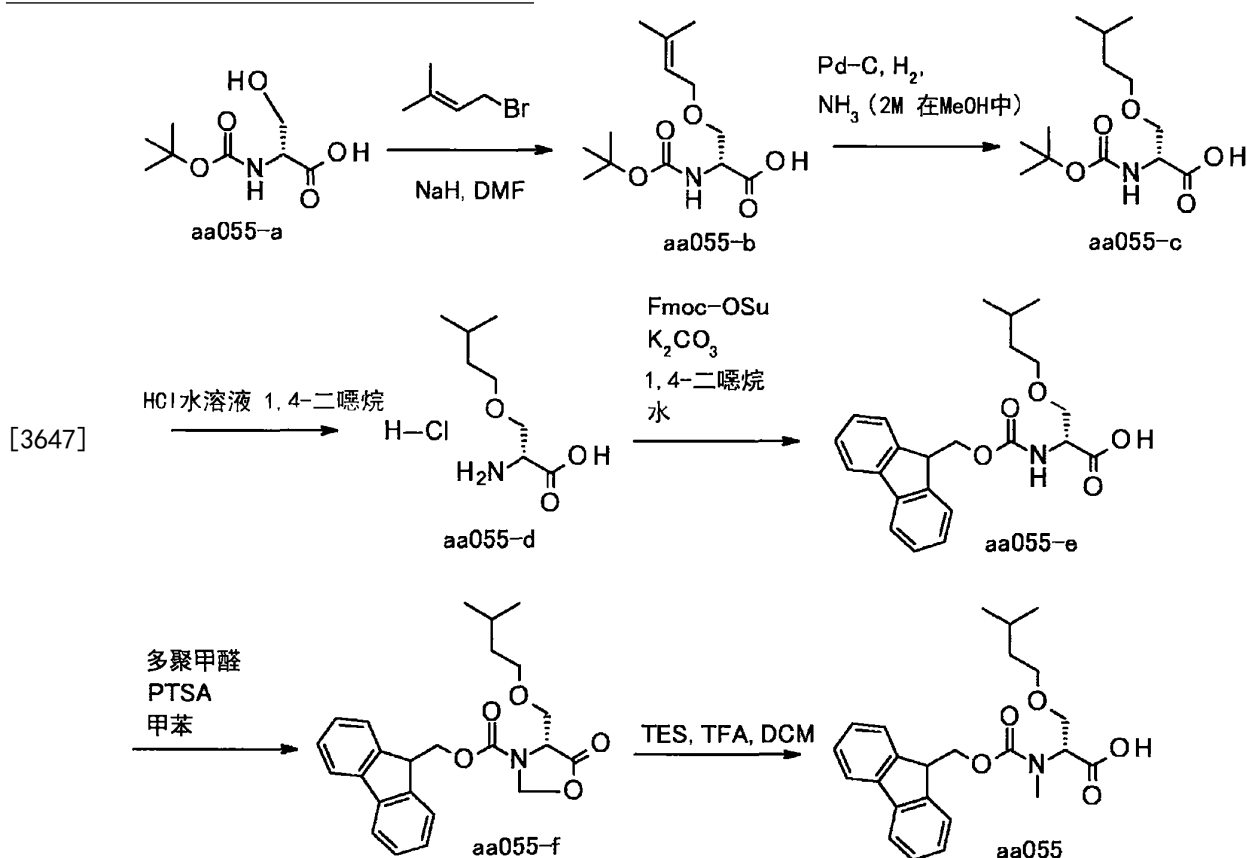
[3642] 在化合物aa054-c (180g, 527mmol) 的THF (1.08L) 溶液中加入3, 4-二氢-2H-吡喃 (310mL, 7当量) 和PPTS (6.6g, 26.4mmol), 在50℃搅拌4小时。向反应液中加入水, 用乙酸乙酯萃取, 将得到的有机层用饱和食盐水洗涤后用无水硫酸钠干燥, 减压下蒸馏除去溶剂, 由此以与羧酸的THP保护体的混合物的形式获得化合物aa054 (327g)。与另外合成的另一批混合并用于下一步反应。

[3643] 将磷酸盐缓冲液 (pH=8, 3L) 添加到上述混合物 (490g) 的THF (3L) 溶液中, 在50℃搅拌4小时。用乙酸乙酯萃取反应液, 将所得有机层用饱和食盐水洗涤后用无水硫酸钠干燥, 然后减压下蒸馏除去溶剂。将所得固体用乙醚/庚烷重结晶, 得到化合物aa054的钠盐 (500g)。向其中加入TBME (8L) 和磷酸水溶液 (110g/22.5L), 在室温搅拌20分钟。将反应液用TBME萃取, 将有机层用饱和食盐水洗涤后, 用无水硫酸钠干燥, 减压下蒸馏除去溶剂, 得到化合物aa054 ((2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(氧杂环己烷-2-基氧)丙酸、Fmoc-D-MeSer (THP)-OH) 的白色固体 (366g, 77%)。

[3644] LCMS (ESI) $m/z = 448 (M+Na)^+$

[3645] 保留时间: 2.095分钟 (分析条件SMDmethod_01)

[3646] 化合物aa055、(2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲基丁氧基)丙酸 (Fmoc-D-MeSer (iPen)-OH) 的合成



[3648] 在氮气气氛、0℃下, 向化合物aa055-a ((2R)-3-羟基-2-[(2-甲基丙烷-2-基)氧羰基

基氨基]丙酸、Boc-D-Ser-OH) (466g, 2.27mol) 的DMF (1.5L) 溶液中加入氢化钠 (NaH) (120g, 2.2当量), 搅拌2小时。在0℃向该反应液中滴加1-溴-3-甲基-2-丁烯 (372g, 2.5mol), 在室温搅拌16小时。向反应液中加入冰水, 用浓盐酸将pH调节为2。将反应液用乙酸乙酯萃取, 将有机层用水洗涤, 用硫酸钠干燥后, 减压下蒸馏除去溶剂。利用硅胶柱色谱 (乙酸乙酯/石油醚) 纯化所得粗产物, 得到化合物aa055-b的红色油状物 (530g, 85%)。

[3649] LCMS (ESI) $m/z = 296 (M+Na)^+$

[3650] 保留时间: 1.259分钟 (分析条件SMDmethod_15)

[3651] 将化合物aa055-b (420g, 1.54mol) 溶解于甲醇 (3L) 中, 加入氨水 (2M甲醇溶液, 1.2L, 67.7mmol) 和钯碳 (85g, 0.52当量), 在氢气气氛下搅拌16小时。将反应液过滤, 在减压下从滤液中蒸馏除去溶剂, 得到化合物aa055-c的无色油状物 (360g)。所得粗产物不经过纯化操作地用于下一个实验。将其与另外合成的另一批混合并用于下一步反应。

[3652] 向化合物aa055-c (670g, 2.43mol) 的1,4-二噁烷 (3L) 溶液中加入浓盐酸 (1.6L, 52.7mol), 在室温下搅拌4小时。将反应液浓缩, 得到化合物aa055-d的水溶液。用碳酸钾调节至pH=7, 用1,4-二噁烷 (3L) 和水 (2L) 稀释。加入Fmoc-OSu (738g, 2.2mol)、碳酸钾 (677g, 4.86mol), 在室温搅拌16小时。向反应液中加入TBME/正己烷 (1/3, 2L), 过滤除去析出的固体。将滤液用浓盐酸调节pH为1, 用乙酸乙酯进行萃取。将有机层用无水硫酸钠干燥后, 减压下蒸馏除去溶剂, 得到化合物aa055-e的白色固体 (450g)。所得粗产物不经过纯化操作地用于下一个实验。

[3653] 在氮气气氛下, 向化合物aa055-e (150g, 377mmol) 中加入甲苯 (1.5L)、多聚甲醛 (30g, 1.15mol)、对甲苯磺酸 (4.5g, 26mmol), 在110℃搅拌16小时。将反应液冷却至室温后加入乙酸乙酯, 用碳酸氢钠水溶液洗涤, 用硫酸钠干燥后减压下蒸馏除去溶剂。利用硅胶柱色谱 (乙酸乙酯/石油醚) 纯化所得的粗产物, 得到化合物aa055-f的白色固体 (110g, 65%)。

[3654] LCMS (ESI) $m/z = 410 (M+H)^+$

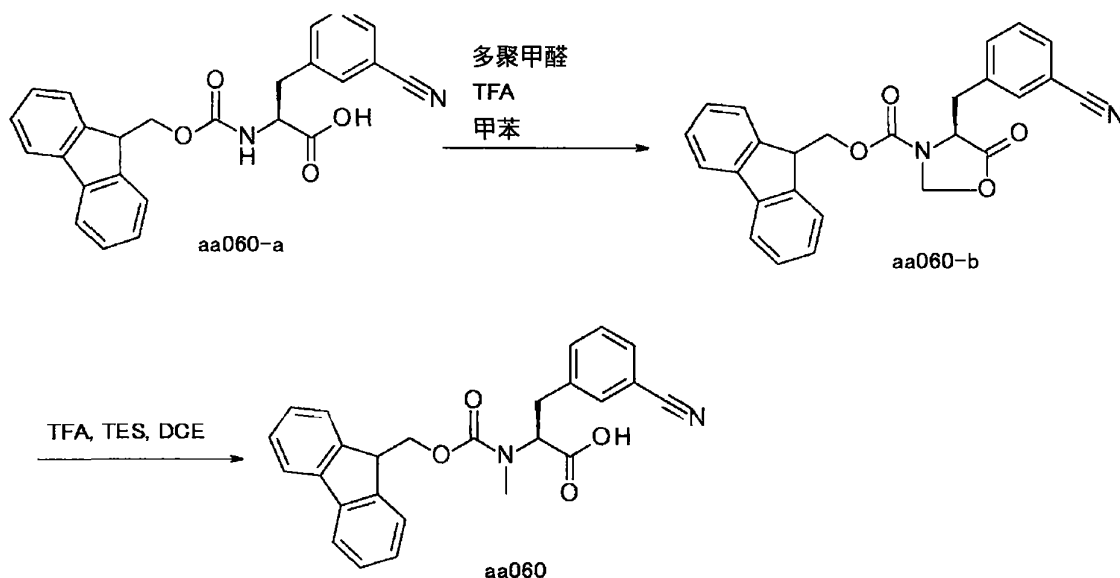
[3655] 保留时间: 1.556分钟 (分析条件SMDmethod_15)

[3656] 在氮气气氛、室温下, 向化合物aa055-f (120g, 293mmol) 的DCM/TFA (1/1, 2.4L) 溶液中加入三乙基硅烷 (102g, 876mmol) 并搅拌48小时, 然后减压下蒸馏除去溶剂。向所得的残渣中加入碳酸钾水溶液, 调节至pH=10。将该溶液用正己烷洗涤后, 用浓盐酸将pH调节为1。将残渣溶解于乙腈中并用正庚烷洗涤。在减压下从所得乙腈层中蒸馏除去溶剂, 得到化合物aa055 ((2R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(3-甲基丁氧基)丙酸、Fmoc-D-MeSer(iPen)-OH) 的黄色油状物质 (120g, 98%)。

[3657] LCMS (ESI) $m/z = 412 (M+H)^+$

[3658] 保留时间: 2.259分钟 (分析条件SMDmethod_02)

[3659] 化合物aa060、(2S)-3-(3-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-MePhe(3-CN)-OH) 的合成



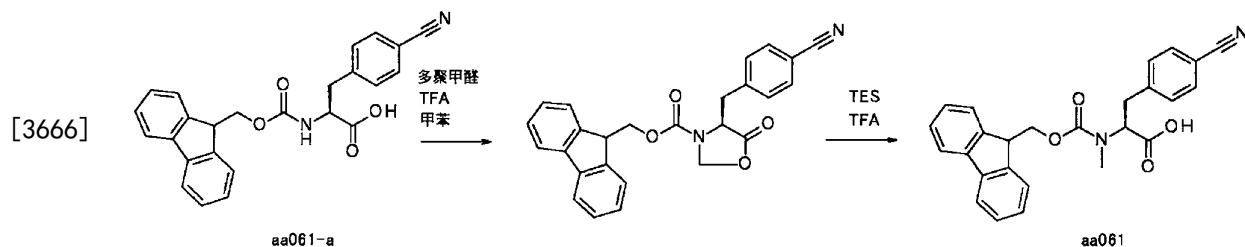
[3661] 在氮气气氛下,向市售的(S)-2-(((9H-芴-9-基)甲氧基)羰基)氨基)-3-(3-氰基苯基)丙酸(Fmoc-Phe(3-CN)-OH)(789mg,1.913mmol)的甲苯(5.7mL)溶液中加入多聚甲醛(172mg,5.74mmol)、三氟乙酸(TFA)(1.326mL,17.22mmol),室温下搅拌5小时30分钟。减压下浓缩反应液,用二氯甲烷(DCM)稀释后用饱和碳酸氢钠水溶液洗涤,用无水硫酸镁干燥后过滤。减压下将所得溶液浓缩,由此得到化合物aa060-b的粗产物(859mg)。未经进一步的纯化地用于下一步反应中。

[3662] 在氮气气氛下,在室温下向上述化合物aa060-b的粗产物(853mg)的二氯乙烷(DCE)(10mL)溶液中加入三乙基硅烷(TES)(2.75mL,17.22mmol)、三氟乙酸(TFA)(3.98mL,51.7mmol),60℃下搅拌5小时。将反应液冷却至室温,减压下蒸馏除去溶剂,向由此得到的粗产物中加入甲基叔丁基醚/正己烷=1/1,用饱和碳酸氢钠水溶液萃取5次。将所得水层的pH用浓盐酸调节至酸性后,用乙酸乙酯萃取3次。将有机层用饱和食盐水洗涤,用无水硫酸镁干燥,进行过滤后,减压下蒸馏除去溶剂,由此得到化合物aa060((2S)-3-(3-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe(3-CN)-OH)(811mg,2个工序99%)。所得化合物aa060未经进一步的纯化地用于肽合成。

[3663] LCMS(ESI) $m/z = 427 (M+H)^+$

[3664] 保留时间:0.83分钟(分析条件SQDFA05)

[3665] 化合物aa061、(2S)-3-(4-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸(Fmoc-MePhe(4-CN)-OH)的合成



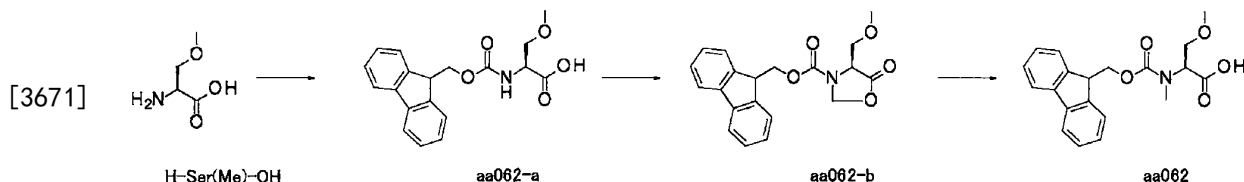
[3667] 将化合物aa061-a((2S)-3-(4-氰基苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(4-CN)-OH)(1g,2.425mmol)作为起始原料,利用与化合物aa060的合成相同的方法得到化合物aa061((2S)-3-(4-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、

Fmoc-MePhe (4-CN) -OH) 的粗产物 (1.14g, 2个工序108%)。所得化合物aa061未进行进一步的纯化地用于肽合成。

[3668] LCMS (ESI) $m/z = 427 (M+H)^+$

[3669] 保留时间: 0.82分钟 (分析条件SQDFA05)

[3670] 化合物aa062、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丙酸 (Fmoc-MeSer (Me) -OH) 的合成



[3672] 使市售的O-甲基-L-丝氨酸 (H-Ser (Me) -OH) (498mg, 4.18mmol) 和碳酸钠 (1.329g, 12.54mmol) 溶解于水 (8mL) 之后, 在室温下加入N-(9-芴基甲氧基羰基氧基) 琥珀酰亚胺 (Fmoc-OSu) (1.41g, 4.18mmol) 的1,4-二噁烷溶液 (12mL), 搅拌过夜。向反应液中加入水, 用甲基叔丁基醚/正己烷=1/10洗涤。向所得水层中加入1N盐酸水直至pH为酸性, 用乙酸乙酯萃取2次。将所得有机层用饱和食盐水洗涤, 用无水硫酸镁干燥, 进行过滤后, 减压下蒸馏除去溶剂, 得到化合物aa062-a (Fmoc-Ser (Me) -OH) (1.46g) 的粗产物。所得化合物aa062-a未经进一步的纯化地用于下一步反应。

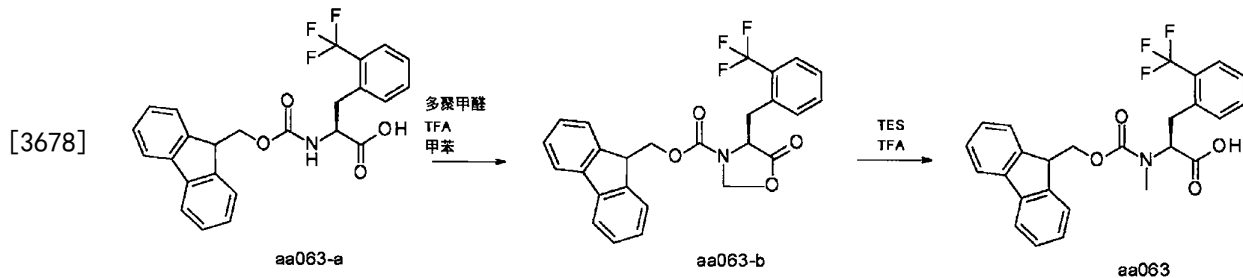
[3673] 向上述化合物aa062-a的粗产物 (1.46g) 和多聚甲醛 (377mg, 12.54mmol) 的甲苯溶液 (12mL) 中加入三氟乙酸 (TFA) (2.90mL, 37.6mmol), 在室温下搅拌过夜。减压下蒸馏除去溶剂后, 加入乙酸乙酯, 将有机层用饱和碳酸氢钠水溶液洗涤后, 用饱和食盐水洗涤, 将所得有机层用无水硫酸镁干燥后, 进行过滤。减压下从所得滤液中蒸馏除去溶剂, 得到化合物aa062-b的粗产物 (2.13g)。所得化合物aa062-b未经进一步的纯化地用于下一步反应。

[3674] 在室温下, 向上述化合物aa062-b的粗产物 (2.13g) 的二氯乙烷 (DCE) 溶液 (15mL) 中加入三乙基硅烷 (TES) (6.02mL, 37.7mmol) 和三氟乙酸 (TFA) (8.72mL, 113mmol), 在60℃搅拌3小时。将反应液冷却至室温, 减压下蒸馏除去溶剂, 向所得粗产物中加入甲基叔丁基醚/正己烷=1/4, 加入饱和碳酸氢钠水溶液, 得到白色固体。减压下蒸馏除去有机溶剂, 在水层中加入二甲亚砜, 将所得溶液利用反相柱色谱 (0.1%甲酸水溶液/0.1%甲酸乙腈溶液) 纯化, 由此得到化合物aa062 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丙酸、Fmoc-MeSer (Me) -OH) (782mg, 经过3个工序53%)。

[3675] LCMS (ESI) $m/z = 356 (M+H)^+$

[3676] 保留时间: 0.76分钟 (分析条件SQDFA05)

[3677] 化合物aa063、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸 (Fmoc-MePhe (2-CF₃) -OH) 的合成

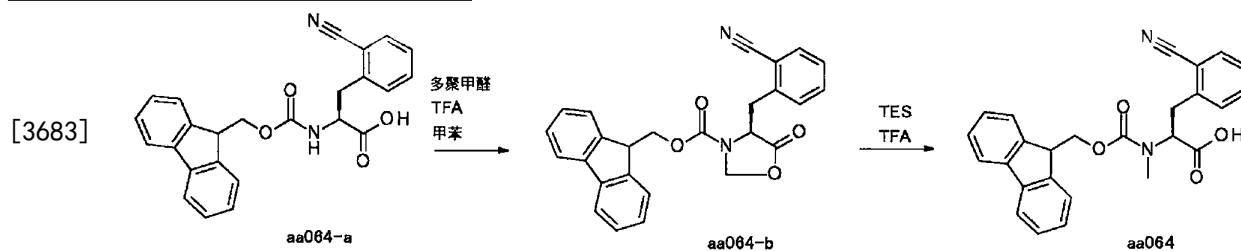


[3679] 使用化合物aa063-a ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[2-(三氟甲基)苯基]丙酸、Fmoc-Phe(2-CF₃)-OH (1g, 2.196mmol) 作为起始原料, 利用与化合物aa060-b的合成相同的方法获得化合物aa063-b的粗产物。利用反相柱色谱(0.1%甲酸水溶液/0.1%甲酸乙腈溶液), 对使用所得化合物aa063-b并利用与化合物aa060的合成相同的方法获得的粗产物进行纯化, 由此获得化合物aa063 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[2-(三氟甲基)苯基]丙酸、Fmoc-MePhe(2-CF₃)-OH (841mg, 2个工序82%)。

[3680] LCMS (ESI) m/z=470 (M+H) +

[3681] 保留时间: 0.95分钟 (分析条件SQDFA05)

[3682] 化合物aa064、(2S)-3-(2-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸(Fmoc-MePhe(2-CN)-OH)的合成

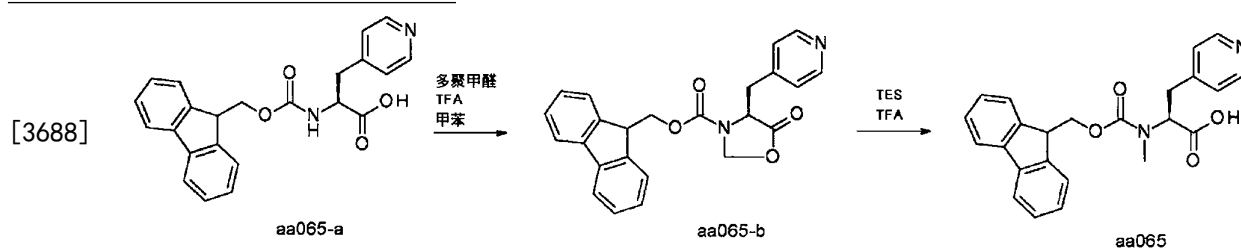


[3684] 使用化合物aa064-a ((2S)-3-(2-氰基苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(2-CN)-OH (1g, 2.425mmol) 作为起始原料, 利用与化合物aa060的合成相同的方法获得化合物aa064-b的粗产物。利用反相柱色谱(0.1%甲酸水溶液/0.1%甲酸乙腈溶液), 对使用所得化合物aa064-b并利用与化合物aa060-b的合成相同的方法获得的粗产物进行纯化, 由此获得化合物aa064 ((2S)-3-(2-氰基苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe(2-CN)-OH (529mg, 2个工序51%)。

[3685] LCMS (ESI) m/z=427 (M+H) +

[3686] 保留时间: 0.85分钟 (分析条件SQDFA05)

[3687] 化合物aa065、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-4-基丙酸(Fmoc-MeAla(4-Pyr)-OH)的合成



[3689] 使用化合物aa065-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-吡啶-4基丙酸、Fmoc-Ala(4-Pyr)-OH (1.5g, 3.86mmol) 作为起始原料, 利用与化合物aa060-b的合成相同的方法获得化合物aa065-b的粗产物。

[3690] LCMS (ESI) m/z=401 (M+H) +

[3691] 保留时间: 0.60分钟 (分析条件SQDFA05)

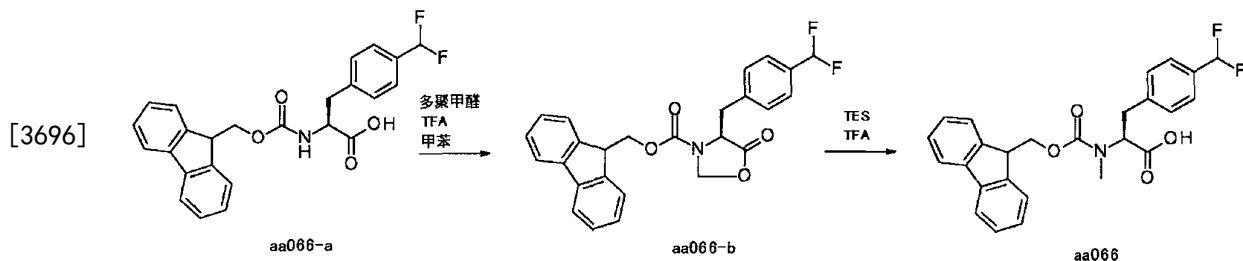
[3692] 利用反相柱色谱(0.1%甲酸水溶液/0.1%甲酸乙腈溶液)对使用上述所得化合物aa065-b的全部量并利用与化合物aa060的合成相同的方法获得的粗产物进行纯化, 得到化合物aa065 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-4-基丙酸、Fmoc-MeAla

(4-Pyr)-OH) (1.54g, 2个工序91%)。

[3693] LCMS (ESI) $m/z = 403$ (M+H) +

[3694] 保留时间: 0.51分钟 (分析条件SQDFA05)

[3695] 化合物aa066、(2S)-3-[4-(二氟甲基)苯基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-MePhe(4-CHF₂)-OH) 的合成

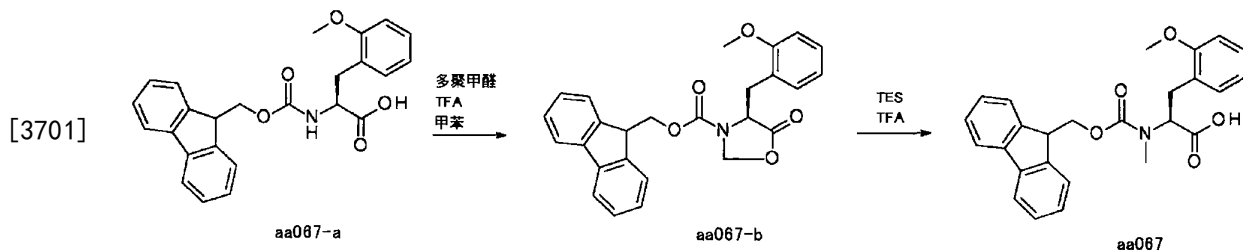


[3697] 使用化合物aa066-a ((2S)-3-[4-(二氟甲基)苯基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-Phe(4-CHF₂)-OH) (2g, 4.57mmol) 作为起始原料, 利用与化合物aa060-b的合成相同的方法获得化合物aa066-b的粗产物。利用反相柱色谱 (0.1% 甲酸水溶液/0.1% 甲酸乙腈溶液), 对使用所得化合物aa066-b并利用与化合物aa060的合成相同的方法获得的粗产物进行纯化, 由此获得化合物aa066 ((2S)-3-[4-(二氟甲基)苯基]-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe(4-CHF₂)-OH) (1.38g, 2个工序67%)。

[3698] LCMS (ESI) $m/z = 452$ (M+H) +

[3699] 保留时间: 0.88分钟 (分析条件SQDFA05)

[3700] 化合物aa067、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸 (Fmoc-MePhe(2-OMe)-OH) 的合成



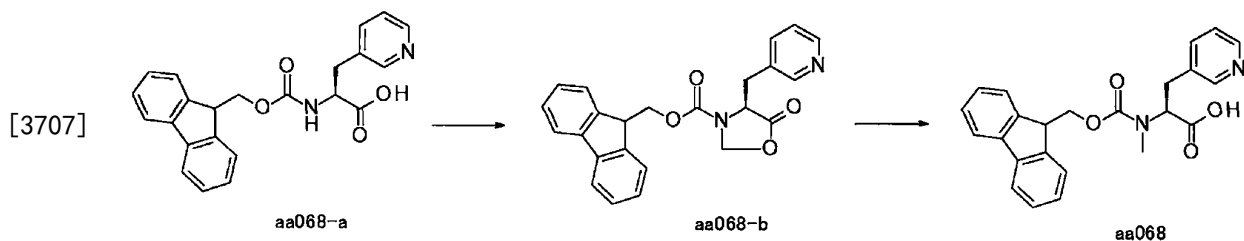
[3702] 利用硅胶柱色谱 (乙酸乙酯/己烷), 对使用化合物aa067-a ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸、Fmoc-Phe(2-OMe)-OH) (1.39g, 3.33mmol) 作为起始原料并利用与化合物aa060-b的合成相同的方法获得的粗产物进行纯化, 得到化合物aa067-b与二聚体的混合物。

[3703] 利用反相柱色谱 (0.1% 甲酸水溶液/0.1% 甲酸乙腈溶液), 对使用化合物aa067-b并利用与化合物aa060的合成相同的方法获得的粗产物进行纯化, 由此得到化合物aa067 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲氧基苯基)丙酸、Fmoc-MePhe(2-OMe)-OH) (456mg, 2个工序34%)。

[3704] LCMS (ESI) $m/z = 432$ (M+H) +

[3705] 保留时间: 0.90分钟 (分析条件SQDFA05)

[3706] 化合物aa068、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-3-基丙酸 (Fmoc-MeAla(3-Pyr)-OH) 的合成



[3708] 使用化合物aa068-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-吡啶-3-基丙酸、Fmoc-Ala(3-Pyr)-OH) (3g, 7.72mmol) 作为起始原料, 利用与化合物aa060-b的合成相同的方法获得化合物aa068-b (2.95g, 95%)。

[3709] LCMS (ESI) $m/z=401$ (M+H) +

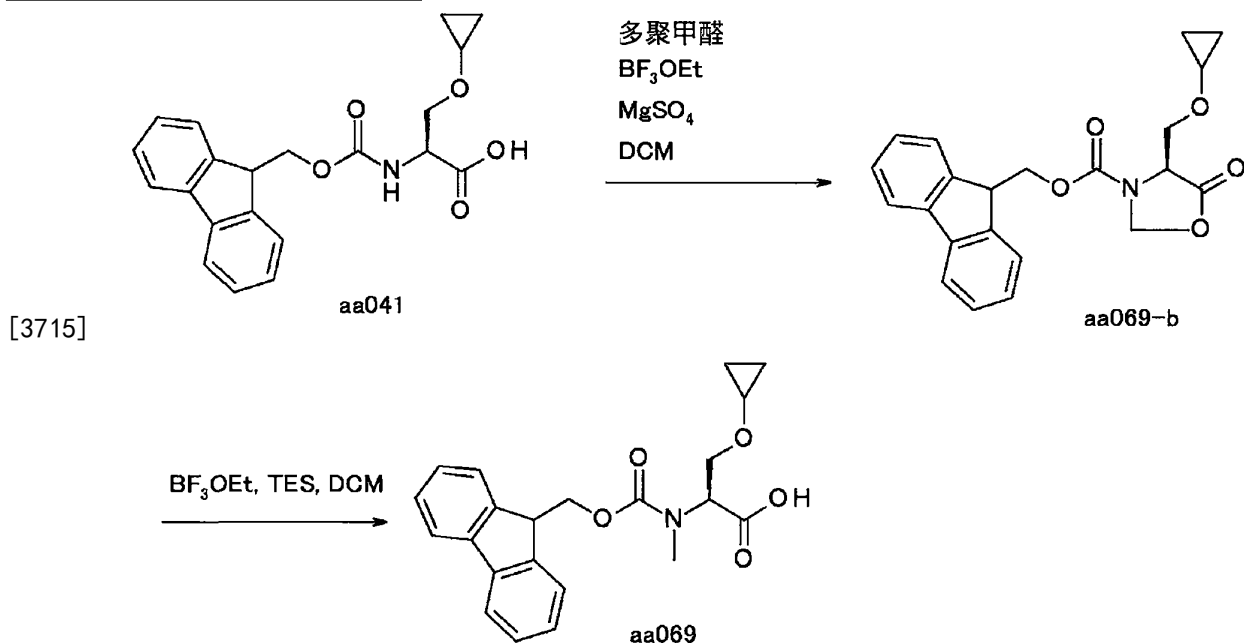
[3710] 保留时间:0.64分钟(分析条件SQDFA05)

[3711] 将使用所得化合物aa068-b (2.95g) 并利用与化合物aa060的合成相同的方法获得的粗产物悬浮在DCM (50mL) 中, 加入3mol/L磷酸二氢钠水溶液 (45mL, 含有1.5mol/L食盐) 并进行搅拌, 除去水层后, 将有机层用3mol/L磷酸二氢钠水溶液 (45mL, 含有1.5mol/L食盐) 洗涤2次。将有机层用无水硫酸镁干燥后, 减压下蒸馏除去溶剂, 将所得残渣利用反相柱色谱 (水/乙腈) 进行纯化, 由此得到化合物aa068 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-吡啶-3-基丙酸、Fmoc-MeAla (3-Pyr) -OH) (2.67g, 90%)。

[3712] LCMS (ESI) $m/z = 403$ (M+H) +

[3713] 保留时间:0.53分钟(分析条件SQDFA05)

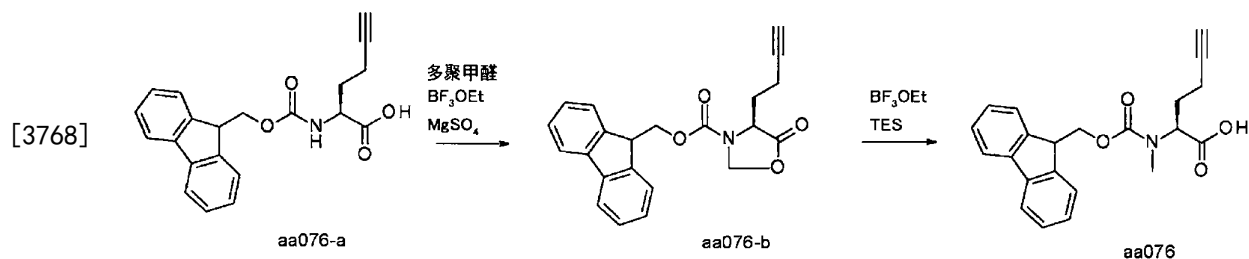
[3714] 化合物aa069、(2S)-3-环丙氧基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸(Fmoc-MeSer(cPr)-OH)的合成



[3716] 在氮气气氛下,向化合物aa041((2S)-3-环丙氧基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Ser(cPr)-OH)(2.89g,7.85mmol)的DCM(87mL)溶液中加入多聚甲醛(1.815g,60.5mmol)、硫酸镁(2.36g,19.63mmol)、三氟化硼乙醚络合物($\text{BF}_3 \cdot \text{OEt}_2$)(1.184mL,9.42mmol),在室温下搅拌2小时。向反应液中加入饱和碳酸氢钠水溶液,将有机层与水层分离。将水层用DCM萃取2次,将合并的有机层用饱和食盐水洗涤,用硫酸钠干燥

[3766] 保留时间:0.88分钟(分析条件SQDFA05)

[3767] 化合物aa076、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]己-5-炔酸(Fmoc-MeAhxy(2)-OH)的合成

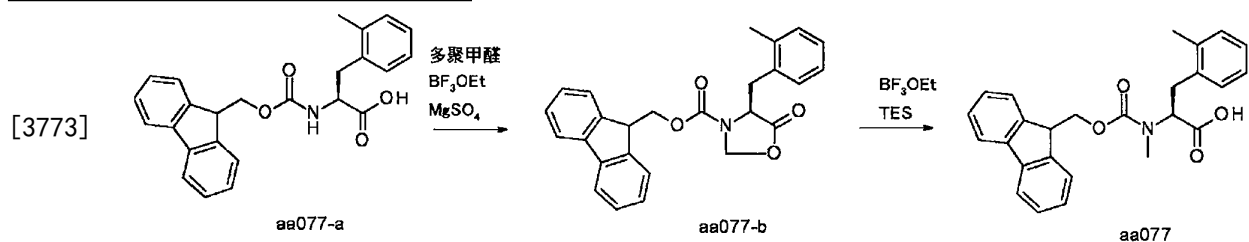


[3769] 使用化合物aa076-a((2S)-2-[9H-芴-9-基甲氧基羰基氨基]己-5-炔酸、Fmoc-Ahxy(2)-OH)(989mg,2.83mmol)作为起始原料,利用与化合物aa069-b的合成相同的方法获得化合物aa076-b的粗产物。使用所得化合物aa076-b并利用与化合物aa069的合成相同的方法得到化合物aa076((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]己-5-炔酸、Fmoc-MeAhxy(2)-OH)(809mg,2个工序79%)。

[3770] LCMS(ESI) $m/z = 364 (M+H)^+$

[3771] 保留时间:0.81分钟(分析条件SQDFA05)

[3772] 化合物aa077、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲基苯基)丙酸(Fmoc-MePhe(2-Me)-OH)的合成

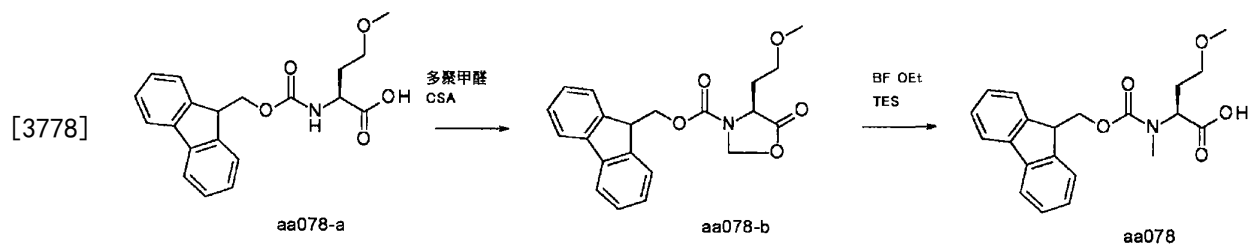


[3774] 向使用化合物aa077-a((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-(2-甲基苯基)丙酸、Fmoc-Phe(2-Me)-OH)(2g,4.98mmol)作为起始原料并利用与化合物aa069-b的合成相同的方法得到的反应液中加入饱和碳酸氢钠水溶液,装入硅胶柱(2v/w),用DCM进行洗脱,由此得到化合物aa077-b的粗产物(1.45g)。使用所得化合物aa077-b并利用与化合物aa069的合成相同的方法得到化合物aa077((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-甲基苯基)丙酸、Fmoc-MePhe(2-Me)-OH)(1.21g,2个工序58%)。

[3775] LCMS(ESI) $m/z = 416 (M+H)^+$

[3776] 保留时间:0.94分钟(分析条件SQDFA05)

[3777] 化合物aa078、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲氧基丁酸(Fmoc-MeHse(Me)-OH)的合成



[3779] 使化合物aa078-a((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-4-甲氧基丁酸(Fmoc-

Hse (Me) -OH) (5.0g, 14.07mmol)、多聚甲醛 (1.27g, 42.2mmol) 和 CSA (0.163g, 0.70mmol) 悬浮于甲苯 (82mL) 中, 在 80℃ 搅拌 14 小时。将反应液冷却至室温后, 将滤液用乙酸乙酯 (100mL) 稀释, 然后用饱和碳酸氢钠水溶液/水 (1/1) 和饱和食盐水/水 (1/1) 洗涤。将有机层用无水硫酸钠干燥, 过滤后减压浓缩, 得到化合物 aa078-b 的粗产物 (5.1g, 99%)。

[3780] LCMS (ESI) $m/z = 368$ (M+H) +

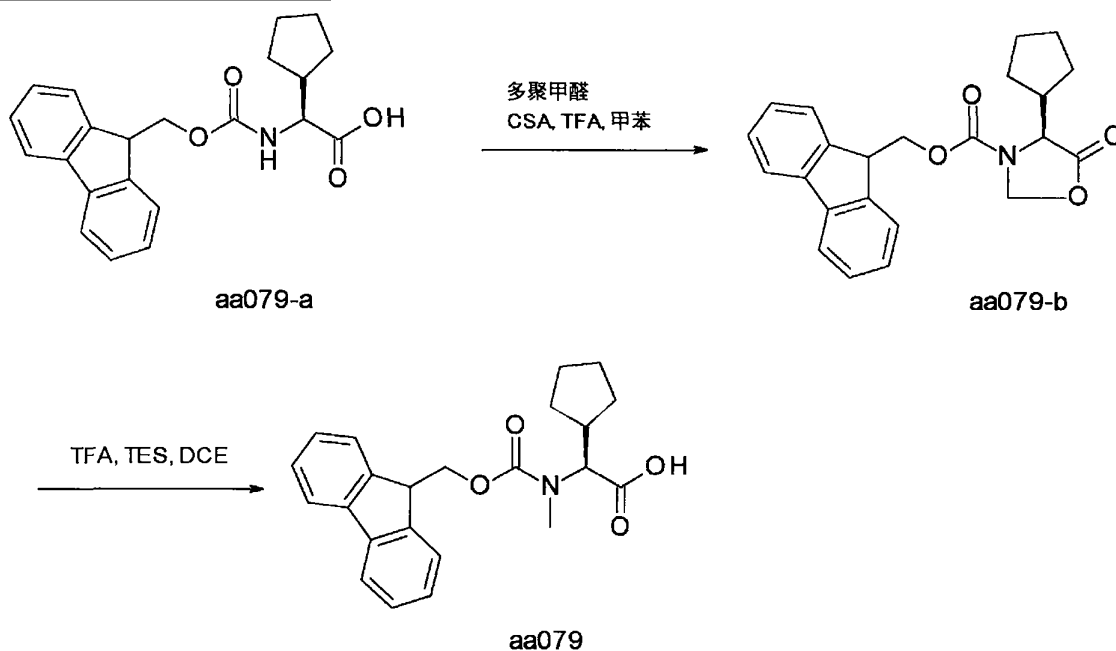
[3781] 保留时间: 0.84 分钟 (分析条件 SQDFA05)

[3782] 在冰冷却、氮气气氛下, 向所得化合物 aa078-b (5.12g, 13.94mmol) 的 DCM (46.5mL) 溶液中加入三乙基硅烷 (6.68mL, 41.8mmol)、水 (0.251mL, 13.94mmol)、三氟化硼乙醚络合物 ($\text{BF}_3 \cdot \text{OEt}_2$) (3.53mL, 27.9mmol), 搅拌 2 小时。向反应液中加入饱和氯化铵水溶液/水 (1/1) 和水 (5mL), 分离有机层。将水层用 DCM 萃取, 将有机层用饱和食盐水/水 (1/1) 洗涤。将有机层用无水硫酸钠干燥, 过滤后减压浓缩, 将所得化合物溶于乙腈, 用正己烷洗涤, 减压浓缩, 由此得到化合物 aa078 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲氧基丁酸、Fmoc-MeHse (Me) -OH) (4.9g, 95%)。

[3783] LCMS (ESI) $m/z = 370$ (M+H) +

[3784] 保留时间: 0.76 分钟 (分析条件 SQDFA05)

[3785] 化合物 aa079、(2S)-2-环戊基-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]乙酸 (Fmoc-MeGly (cPent) -OH) 的合成



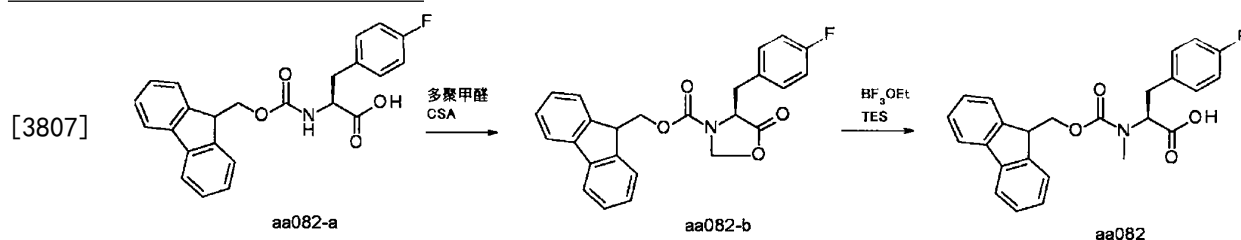
[3786]

[3787] 向化合物 aa079-a ((2S)-2-环戊基-2-[9H-芴-9-基甲氧基羰基氨基]乙酸、Fmoc-Gly (cPent) -OH) (30.0g, 82mmol)、多聚甲醛 (7.39g, 246mmol) 和 CSA (0.954g, 4.10mmol) 的甲苯 (160mL) 混合液中加入三氟乙酸 (TFA) (9.0mL) 后, 在 60℃ 搅拌 4 小时。将反应液冷却至室温后, 通过过滤除去固体。减压下浓缩滤液, 用乙酸乙酯 (220mL) 稀释, 然后依次用饱和碳酸氢钠水溶液和饱和食盐水洗涤。将有机层用无水硫酸钠干燥, 过滤, 然后减压浓缩, 得到化合物 aa079-b 的粗产物。未经进一步的纯化地进行下一步反应。

[3788] LCMS (ESI) $m/z = 378$ (M+H) +

[3789] 保留时间: 1.01 分钟 (分析条件 SQDFA05)

[3806] 化合物aa082、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-(氟苯基)丙酸(Fmoc-MePhe(4-F)-OH)的合成



[3808] 使用化合物aa082-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-(4-氟苯基)丙酸、Fmoc-Phe(4-F)-OH) (10.0g, 24.67mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa082-b的粗产物(8.55g)。

[3809] LCMS (ESI) $m/z = 418$ (M+H) +

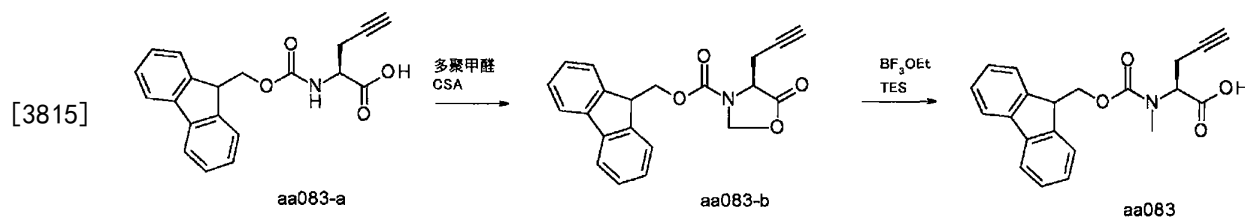
[3810] 保留时间: 0.98分钟(分析条件SQDFA05)

[3811] 使用所得化合物aa082-b (8.55g), 利用与化合物aa078的合成相同的方法得到化合物aa082 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-(氟苯基)丙酸、Fmoc-MePhe(4-F)-OH) (7.28g, 2个工序70%)。

[3812] LCMS (ESI) $m/z = 420$ (M+H) +

[3813] 保留时间: 0.90分钟(分析条件SQDFA05)

[3814] 化合物aa083、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-炔酸(Fmoc-MePRA-OH)的合成



[3816] 使用化合物aa083-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]戊-4-炔酸、Fmoc-PRA-OH) (3g, 8.95mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa083-b的粗产物(2.71g, 87%)。

[3817] LCMS (ESI) $m/z = 348$ (M+H) +

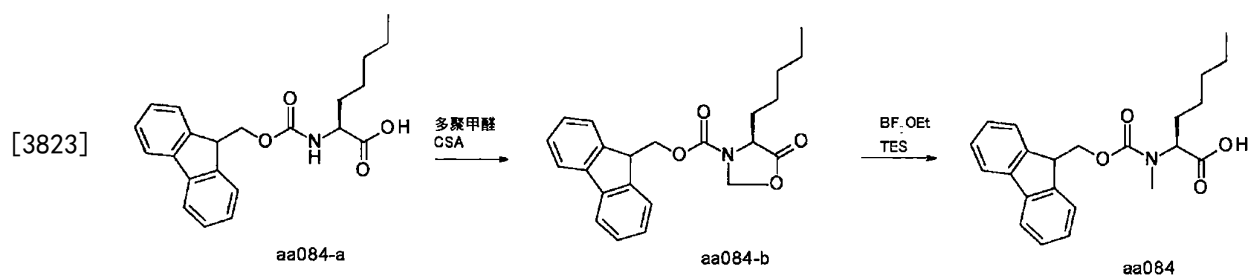
[3818] 保留时间: 0.87分钟(分析条件SQDFA05)

[3819] 使用所得化合物aa083-b (989mg, 2.85mmol), 利用与化合物aa078的合成相同的方法得到化合物aa083 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]戊-4-炔酸、Fmoc-MePRA-OH) (986mg, 99%)。

[3820] LCMS (ESI) $m/z = 350$ (M+H) +

[3821] 保留时间: 0.79分钟(分析条件SQDFA05)

[3822] 化合物aa084、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]庚酸(Fmoc-MeHn1-OH)的合成



[3824] 使用化合物aa084-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]庚酸 (Fmoc-Hn1-OH) (5g, 13.61mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa084-b的粗产物 (5.58g)。

[3825] LCMS (ESI) $m/z = 380$ (M+H) +

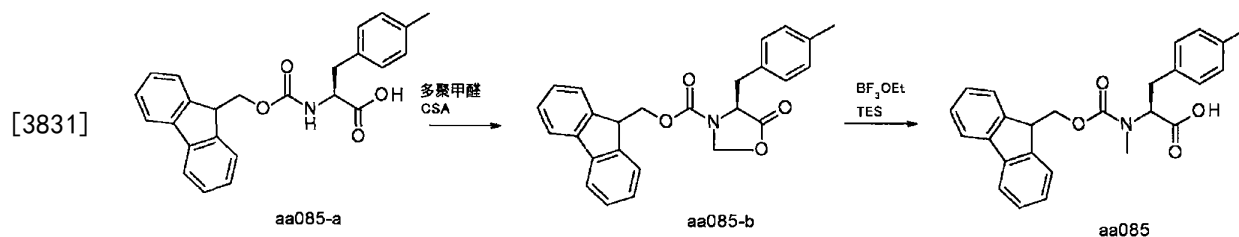
[3826] 保留时间: 1.05分钟 (分析条件SQDFA05)

[3827] 使用所得化合物aa084-b (5.16g, 12.58mmol), 利用与化合物aa078的合成相同的方法得到化合物aa084 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]庚酸、Fmoc-MeHn1-OH) (4.869g, 94%)。

[3828] LCMS (ESI) $m/z = 382$ (M+H) +

[3829] 保留时间: 0.97分钟 (分析条件SQDFA05)

[3830] 化合物aa085、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-甲基苯基)丙酸 (Fmoc-MePhe (4-Me) -OH) 的合成



[3832] 使用化合物aa085-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-(4-甲基苯基)丙酸、Fmoc-Phe (4-Me) -OH) (20g, 49.8mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa085-b的粗产物 (22.66g)。

[3833] LCMS (ESI) $m/z = 414$ (M+H) +

[3834] 保留时间: 1.04分钟 (分析条件SQDFA05)

[3835] 利用反相柱色谱 (0.1%甲酸-水/0.1%甲酸-乙腈), 对使用所得化合物aa085-b (22.66g) 并利用与化合物aa078的合成相同的方法反应之后获得的粗产物进行纯化, 由此得到化合物aa085 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-甲基苯基)丙酸、Fmoc-MePhe (4-Me) -OH) (17.3g, 2个工序83.5%)。

[3836] LCMS (ESI) $m/z = 416$ (M+H) +

[3837] 保留时间: 2.41分钟 (分析条件SQDFA05)

[3838] 化合物aa086、(2S)-3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-MePhe (4-Br) -OH) 的合成

[3839]

aa086-a

多聚甲醛
CSA

aa086-b

$\text{BF}_3 \cdot \text{OEt}_2$
TES

aa086

[3840] 利用反相柱色谱(0.1%甲酸水溶液/0.1%甲酸乙腈溶液),对使用化合物aa086-a((2S)-3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸、Fmoc-Phe(4-Br)-OH)(6g, 12.87mm1)作为起始原料并利用与化合物aa078-b的合成相同的方法获得的粗产物进行纯化,由此得到化合物aa086-b(3.57g,58%)。

[3841] LCMS (ESI) m/z = 478 (M+H) +

[3842] 保留时间:1.05分钟(分析条件SQDFA05)

[3843] 将使用得到的化合物aa086-b (3.57g, 7.46mmol) 并利用与化合物aa078的合成相同的方法获得的粗产物用乙腈/己烷 (1/1) 洗涤, 由此得到化合物aa086 ((2S)-3-(4-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸, Fmoc-MePhe(4-Br)-OH) (3.40g, 95%)。

[3844] LCMS (ESI) $m/z = 480$ (M+H) +

[3845] 保留时间:0.96分钟(分析条件SQDFA05)

[3846] 化合物aa087、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸(Fmoc-MePhe(3-OCF₃)-OH)的合成

[3847]

多聚甲醛
CSA

BF₃·OEt₂
TES

aa087-a

aa087-b

aa087

[3848] 使用化合物aa087-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-[3-(三氟甲氧基)苯基]丙酸、Fmoc-Phe(3-OCF₃)-OH)(6.07g, 12.87mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa087-b的粗产物(5.84g)。

[3849] LCMS (ESI) $m/z = 484$ (M+H) +

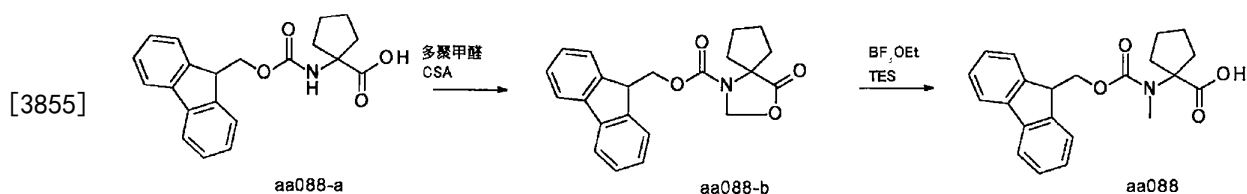
[3850] 保留时间:1.05分钟(分析条件SQDFA05)

[3851] 使用所得化合物aa087-b (5.84g), 利用与化合物aa078的合成相同的方法得到化合物aa087 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[3-(三氟甲氧基)苯基]丙酸、Fmoc-MePhe(3-OCF₃)-OH) (5.66g, 2个工序91%)。

[3852] LCMS (ESI) $m/z = 486$ (M+H) +

[3853] 保留时间:0.97分钟(分析条件SQDFA05)

[3854] 化合物aa088、1-[9H-芴-9-基甲氧基羰基(甲基)氨基]环戊烷-1-甲酸(Fmoc-MecLeu-OH)的合成

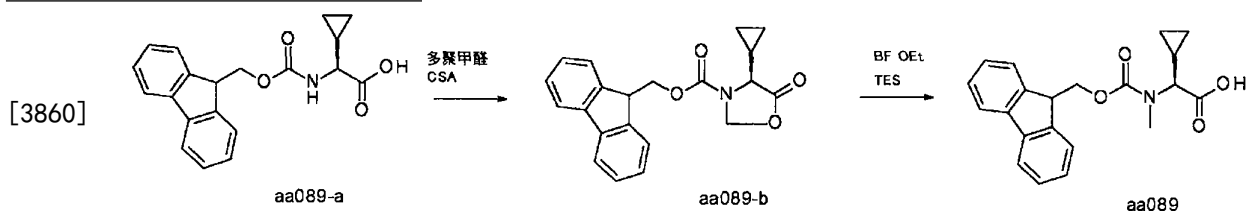


[3856] 使用化合物aa088-a (1-[9H-芴-9-基甲氧基羰基氨基]环戊烷-1-甲酸 (Fmoc-cLeu-OH) (10g, 28.5mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa088-b的粗产物。使用化合物aa088-b并利用与化合物aa078的合成相同的方法得到粗产物。将所得的粗产物利用研磨 (己烷/TBME) 纯化, 得到化合物aa088 (1-[9H-芴-9-基甲氧基羰基 (甲基) 氨基]环戊烷-1-甲酸、Fmoc-MecLeu-OH) (6.82g, 2个工序66%)。

[3857] LCMS (ESI) $m/z = 366$ (M+H) +

[3858] 保留时间: 0.87分钟 (分析条件SQDFA05)

[3859] 化合物aa089、(2S)-2-环丙基-2-[9H-芴-9-基甲氧基羰基 (甲基) 氨基]乙酸 (Fmoc-MeGly (cPr)-OH) 的合成



[3861] 使用化合物aa089-a ((2S)-2-环丙基-2-[9H-芴-9-基甲氧基羰基氨基]乙酸、Fmoc-Gly (cPr)-OH) (5g, 14.82mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa089-b的粗产物。

[3862] LCMS (ESI) $m/z = 350$ (M+H) +

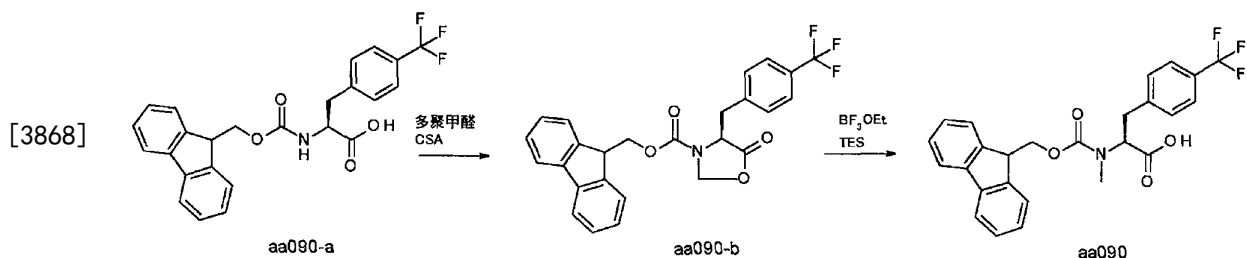
[3863] 保留时间: 0.89分钟 (分析条件SQDFA05)

[3864] 使用通过上述得到的化合物aa089-b的全部量, 利用与化合物aa078的合成相同的方法得到化合物aa089 ((2S)-2-环丙基-2-[9H-芴-9-基甲氧基羰基 (甲基) 氨基]乙酸 (Fmoc-MeGly (cPr)-OH) (5.18g, 2个工序99%)。

[3865] LCMS (ESI) $m/z = 352$ (M+H) +

[3866] 保留时间: 0.80分钟 (分析条件SQDFA05)

[3867] 化合物aa090、(2S)-2-[9H-芴-9-基甲氧基羰基 (甲基) 氨基]-3-[4-(三氟甲基) 苯基]丙酸 (Fmoc-MePhe (4-CF3)-OH) 的合成



[3869] 使用化合物aa090-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-[4-(三氟甲基) 苯基]丙酸、Fmoc-Phe (4-CF3)-OH) (200g, 439mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa090-b的粗产物 (206.8g)。

[3870] LCMS (ESI) $m/z = 468.5$ (M+H) +

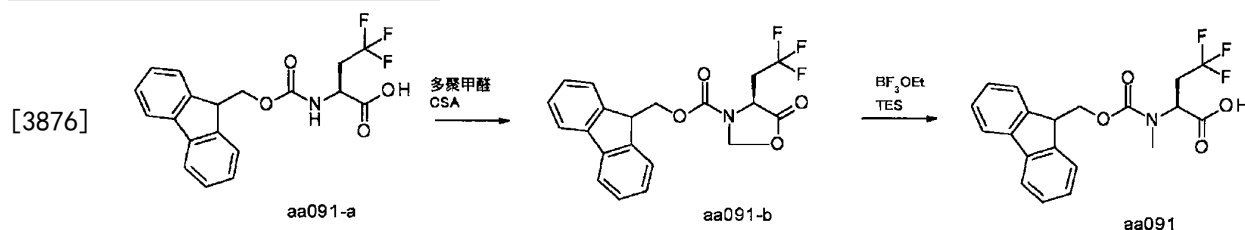
[3871] 保留时间:3.30分钟(分析条件SMDMethod_03)

[3872] 使用所得化合物aa090-b (205g), 利用与化合物aa078的合成相同的方法得到化合物aa090 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-[4-(三氟甲基)苯基]丙酸、Fmoc-MePhe(4-CF₃)-OH) (195g, 2个工序95%)。

[3873] LCMS (ESI) m/z=469.95 (M+H) +

[3874] 保留时间:2.96分钟(分析条件SMDMethod_03)

[3875] 化合物aa091、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4,4,4-三氟丁酸(Fmoc-MeAbu(4-F₃)-OH)的合成

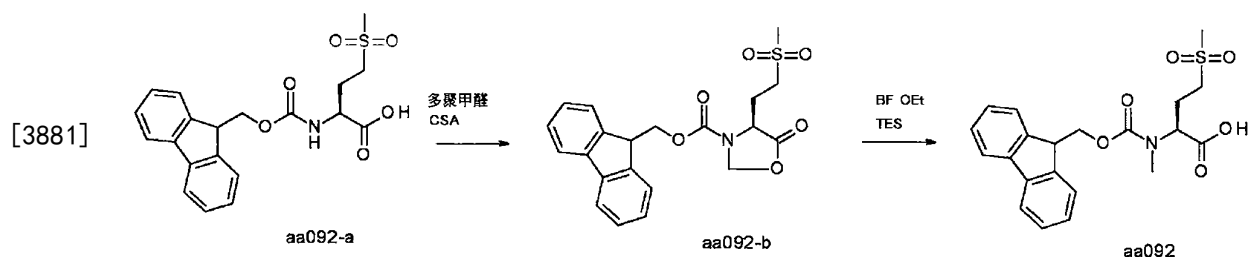


[3877] 使用化合物aa091-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-4,4,4-三氟丁酸、Fmoc-Abu(4-F₃)-OH) (0.994g, 2.62mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法得到化合物aa091-b的粗产物。将使用所得化合物aa091-b (4.78g) 并利用与化合物aa078的合成同样的方法得到的粗产物用乙腈洗涤, 过滤收集固体, 将该固体与用己烷洗涤滤液后减压下蒸馏除去溶剂而得到的固体进行合并, 得到化合物aa091 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4,4,4-三氟丁酸、Fmoc-MeAbu(4-F₃)-OH) (961mg, 2个工序93%)。

[3878] LCMS (ESI) m/z=394 (M+H) +

[3879] 保留时间:0.83分钟(分析条件SQDFA05)

[3880] 化合物aa092、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲基磺酰基丁酸(Fmoc-MeMet(02)-OH)的合成



[3882] 使化合物aa092-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-4-甲基磺酰基丁酸、Fmoc-Met(02)-OH) (5.0g, 12.39mmol)、多聚甲醛(1.12g, 37.2mmol)和CSA(0.144g, 0.62mmol)悬浮在甲苯(83mL)中, 在95℃搅拌4小时。将反应液冷却至室温后, 将滤液用乙酸乙酯(100mL)稀释, 然后用饱和碳酸氢钠水溶液/水(1/1)和饱和食盐水/水(1/1)洗涤。将有机层用无水硫酸钠干燥, 过滤, 然后减压浓缩, 得到化合物aa092-b的粗产物(4.2g)。

[3883] LCMS (ESI) m/z=416 (M+H) +

[3884] 保留时间:0.77分钟(分析条件SQDFA05)

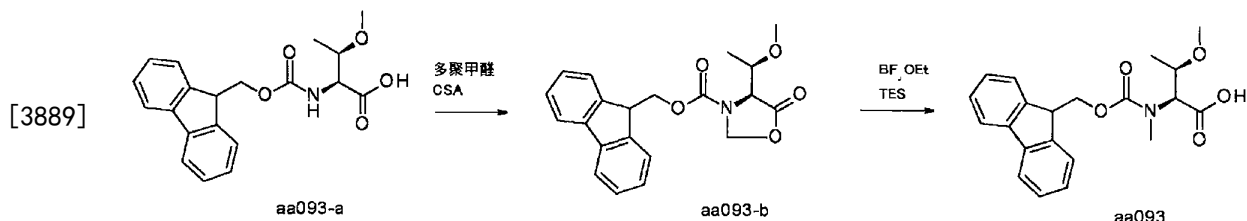
[3885] 在冰冷却、氮气气氛下, 向所得化合物aa092-b (4.20g, 10.11mmol) 的DCM(33.7mL)溶液中加入三乙基硅烷(4.84mL, 30.3mmol)、水(0.182mL, 10.11mmol)、三氟化硼乙醚络合物(BF₃·OEt₂) (2.56mL, 20.22mmol), 搅拌2小时。向反应液中加入饱和氯化铵水溶液/水(1/

1) 和水 (3ml), 分离有机层。将水层用DCM萃取, 将有机层用饱和食盐水洗涤, 结果固体析出。用己烷洗涤析出的化合物, 得到化合物aa092 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-甲基磺酰基丁酸 (Fmoc-MeMet (O2) -OH) (3.64g, 86%)。

[3886] LCMS (ESI) $m/z = 418$ (M+H) +

[3887] 保留时间: 0.68分钟 (分析条件SQDFA05)

[3888] 化合物aa093、(2S, 3R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丁酸 (Fmoc-MeThr (Me) -OH) 的合成



[3890] 使用化合物aa093-a ((2S, 3R)-2-[9H-芴-9-基甲氧基羰基氨基]-3-甲氧基丁酸、Fmoc-Thr (Me) -OH) (3g, 8.44mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法获得化合物aa093-b的粗产物。

[3891] LCMS (ESI) $m/z = 368$ (M+H) +

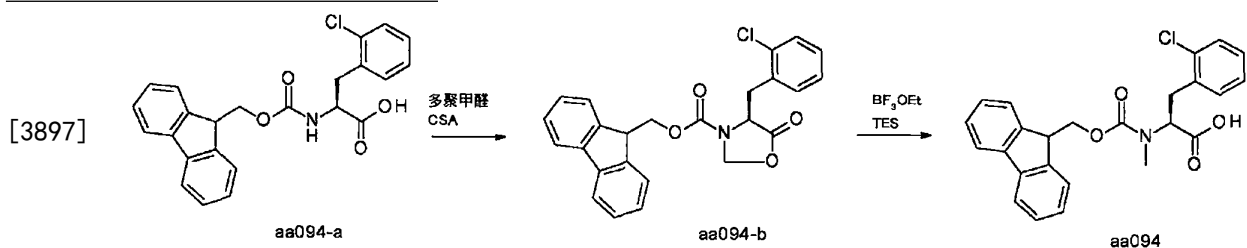
[3892] 保留时间: 0.88分钟 (分析条件SQDFA05)

[3893] 使用按照上述得到的化合物aa093-b的全部量, 利用与化合物aa078的合成相同的方法得到化合物aa093 ((2S, 3R)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-甲氧基丁酸 (Fmoc-MeThr (Me) -OH) (2.79g, 2个工序89%)。

[3894] LCMS (ESI) $m/z = 370$ (M+H) +

[3895] 保留时间: 0.81分钟 (分析条件SQDFA05)

[3896] 化合物aa094、(2S)-3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-MePhe (2-Cl) -OH) 的合成



[3898] 使用化合物aa094-a ((2S)-3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸、Fmoc-Phe (2-Cl) -OH) (5g, 11.85mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法得到化合物aa094-b (4.2g, 82%)。

[3899] LCMS (ESI) $m/z = 434$ (M+H) +

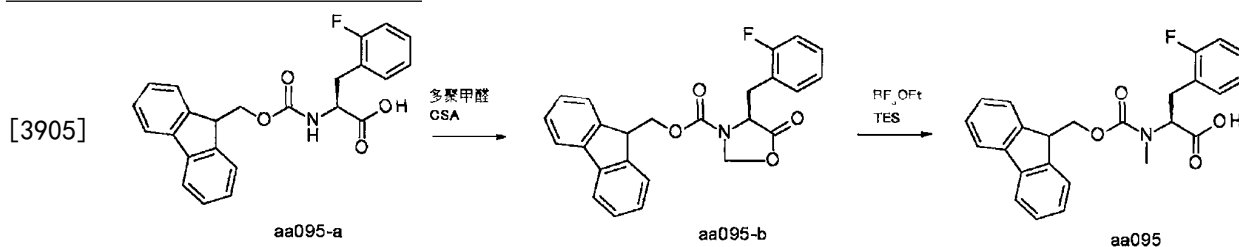
[3900] 保留时间: 1.01分钟 (分析条件SQDFA05)

[3901] 使用按照上述得到的化合物aa094-b (4.2g), 利用与化合物aa078的合成相同的方法得到化合物aa094 ((2S)-3-(2-氯苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe (2-Cl) -OH) (3.32g, 79%)。

[3902] LCMS (ESI) $m/z = 436$ (M+H) +

[3903] 保留时间: 0.94分钟 (分析条件SQDFA05)

[3904] 化合物aa095、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸(Fmoc-MePhe(2-F)-OH)的合成



[3906] 使用化合物aa095-a((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-(2-氟苯基)丙酸、Fmoc-Phe(2-F)-OH)(3g, 7.4mmol)作为起始原料,利用与化合物aa078-b的合成相同的方法得到化合物aa095-b(3.21g, quant.)。

[3907] LCMS (ESI) $m/z = 418$ (M+H) +

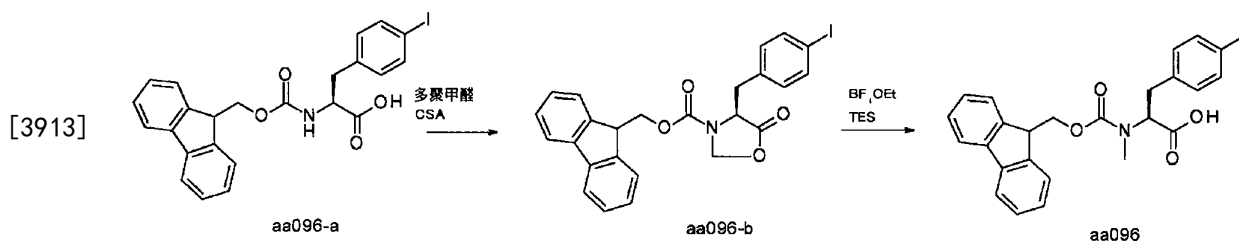
[3908] 保留时间:0.97分钟(分析条件SQDFA05)

[3909] 使用所得化合物aa095-b(3g, 7.19mmol),利用与化合物aa079的合成相同的方法得到化合物aa095((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(2-氟苯基)丙酸、Fmoc-MePhe(2-F)-OH)(2.89g, 96%)。

[3910] LCMS (ESI) $m/z = 420$ (M+H) +

[3911] 保留时间:0.90分钟(分析条件SQDFA05)

[3912] 化合物aa096、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸(Fmoc-MePhe(4-I)-OH)的合成



[3914] 使用化合物aa096-a((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-3-(4-碘苯基)丙酸、Fmoc-Phe(4-I)-OH)(2.36g, 4.6mmol)作为起始原料,利用与化合物aa078-b的合成相同的方法得到化合物aa096-b的粗产物(2.62g)。

[3915] LCMS (ESI) $m/z = 526$ (M+H) +

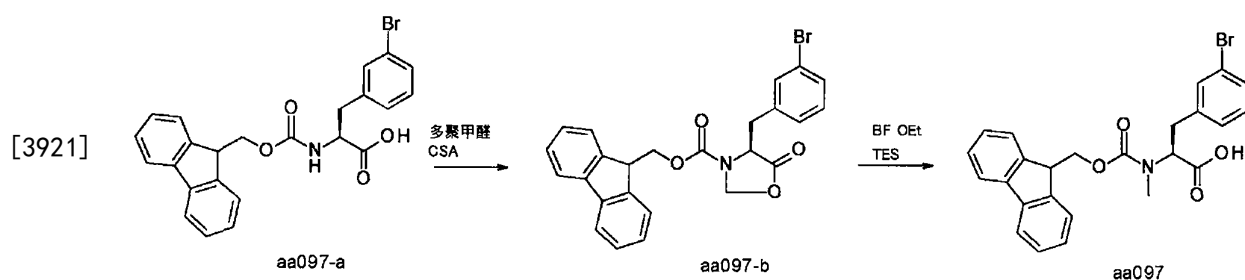
[3916] 保留时间:1.07分钟(分析条件SQDFA05)

[3917] 使用所得化合物aa096-b(2.62g),利用与化合物aa078的合成相同的方法得到化合物aa096((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-(4-碘苯基)丙酸、Fmoc-MePhe(4-I)-OH)(2.36g, 97%)。

[3918] LCMS (ESI) $m/z = 528$ (M+H) +

[3919] 保留时间:0.98分钟(分析条件SQDFA05)

[3920] 化合物aa097、(2S)-3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸(Fmoc-MePhe(3-Br)-OH)的合成



[3922] 使用化合物aa097-a ((2S)-3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸、Fmoc-Phe(3-Br)-OH) (3g, 6.43mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法得到化合物aa097-b的粗产物(2.98g)。

[3923] LCMS (ESI) $m/z = 478$ (M+H) +

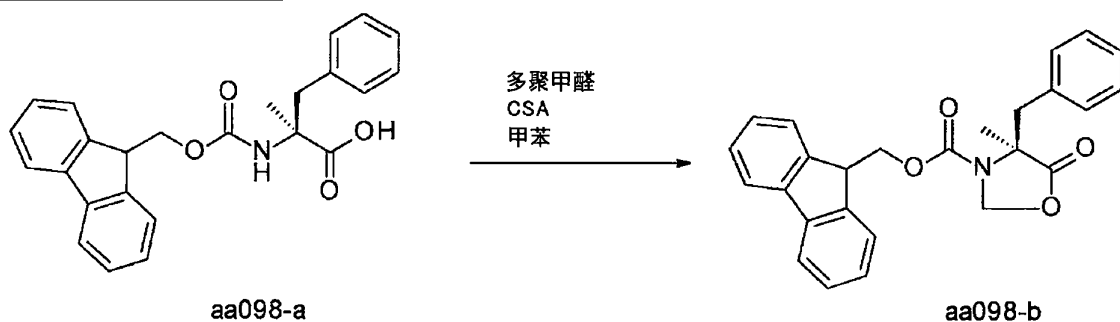
[3924] 保留时间: 1.05分钟 (分析条件SQDFA05)

[3925] 使用所得化合物aa097-b (2.98g), 利用与化合物aa078的合成相同的方法得到化合物aa097 ((2S)-3-(3-溴苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-MePhe(3-Br)-OH) (2.87g, 2个工序92%)。

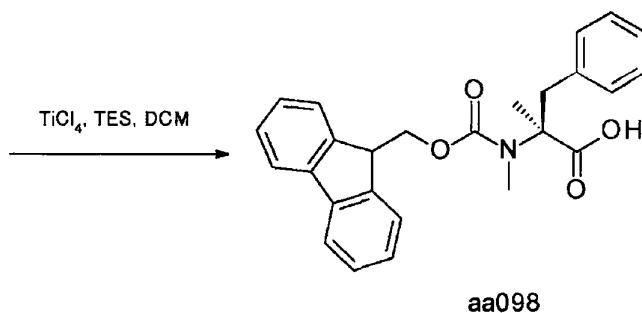
[3926] LCMS (ESI) $m/z = 480$ (M+H) +

[3927] 保留时间: 0.96分钟 (分析条件SQDFA05)

[3928] 化合物aa098、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸 (Fmoc-Me(Me)Phe-OH) 的合成



[3929]



[3930] 使化合物aa098-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-2-甲基-3-苯基丙酸 (Fmoc-(Me)Phe-OH) (2g, 4.98mmol) 悬浮于甲苯(16.61mL)中, 向其中加入多聚甲醛(0.449g, 14.95mmol)和(1S)-(+)-10-樟脑磺酸(0.058g, 0.249mmol), 然后在85℃搅拌4小时。冷却至室温后, 用乙酸乙酯稀释反应液, 用5%碳酸钠水溶液、18%氯化钠水溶液洗涤后, 用无水硫酸钠干燥有机层, 过滤, 然后减压下浓缩, 得到化合物aa098-b (2.07g, 100%)。

[3931] LCMS (ESI) $m/z = 414$ (M+H) +

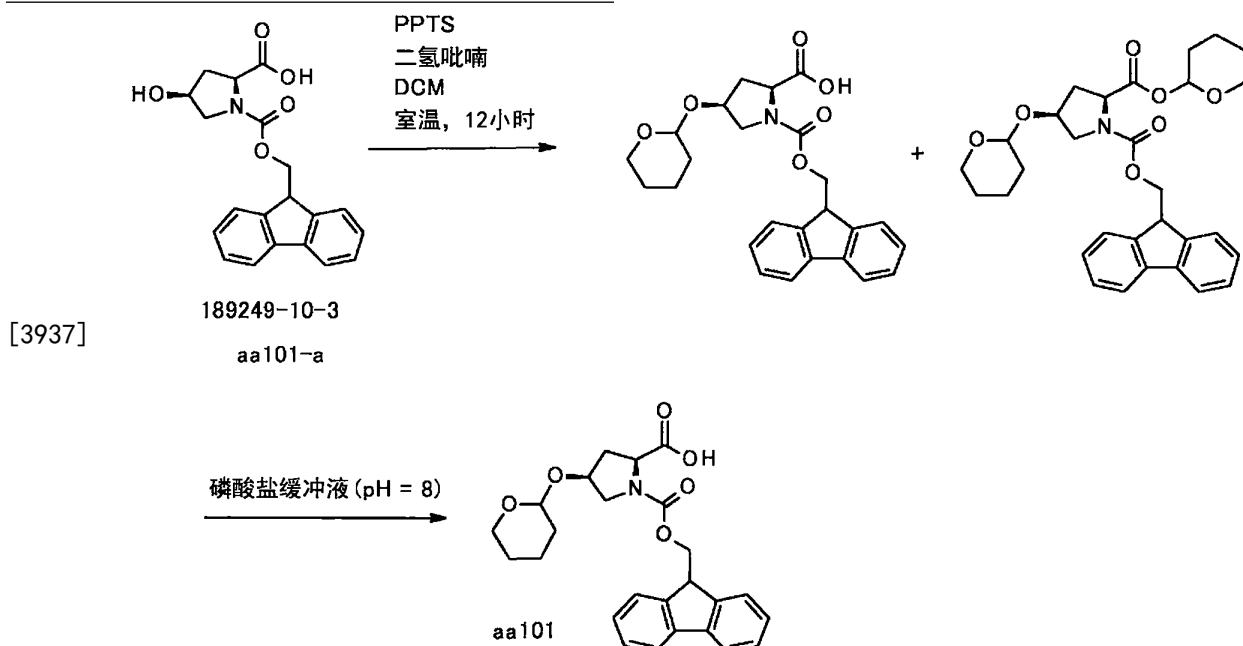
[3932] 保留时间: 1.01分钟 (分析条件SQDFA05)

[3933] 将化合物aa098-b (520mg, 1.258mmol) 溶解于二氯甲烷 (6.3mL) 中, 加入三乙基硅烷 (1.202mL, 7.55mmol)、1M的四氯化钛的二氯甲烷溶液 (2.515mL), 然后在0℃搅拌1小时后, 室温下搅拌1小时。向反应液中加入水, 用分相器过滤, 在减压下浓缩滤液。利用反相色谱 (0.1%甲酸-水/0.1%甲酸-乙腈) 纯化所得残渣, 由此得到化合物aa098 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-2-甲基-3-苯基丙酸、Fmoc-Me (Me) Phe-OH) (357mg, 68%)。

[3934] LCMS (ESI) $m/z = 416 (M+H)^+$

[3935] 保留时间: 0.91分钟 (分析条件SQDFA05)

[3936] 化合物aa101、(2S,4S)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧)吡咯烷-2-甲酸 (Fmoc-cisHyp (THP)-OH) 的合成

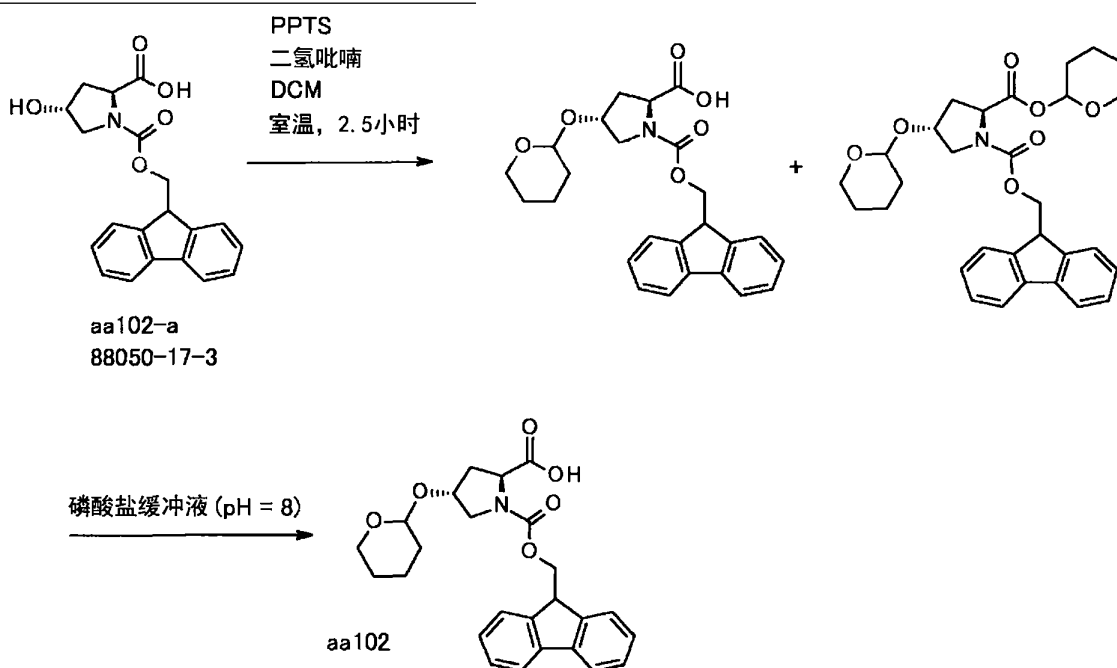


[3938] 向化合物aa101-a ((2S,4S)-1-(9H-芴-9-基甲氧基羰基)-4-羟基吡咯烷-2-甲酸、Fmoc-cisHyp (THP)-OH) (4.18g, 11.83mmol) 的二氯甲烷溶液 (42mL) 中加入3,4-二氢吡喃 (2.24g, 2.25当量) 和PPTS (0.3g, 0.1当量), 在室温下搅拌12小时。向反应液中加入水, 然后用二氯甲烷萃取, 将所得有机层用水和饱和食盐水洗涤。减压蒸馏除去溶剂, 将所得残渣溶解于THF (35mL) 中, 然后加入1.0M磷酸盐缓冲液 (pH=8.0, 35mL), 在50℃搅拌4小时30分钟。向反应液中加入乙酸乙酯 (35mL), 然后分离有机层和水层, 将水层用乙酸乙酯萃取。将合并的有机层用饱和食盐水洗涤, 用硫酸钠干燥, 过滤, 然后减压蒸馏除去溶剂。将所得残渣溶解于乙醚 (50mL) 中, 加入庚烷 (50mL) 后, 减压蒸馏除去乙醚。过滤得到的固体, 得到化合物aa101的钠盐 (4.97g)。将得到的化合物aa101的钠盐溶解于乙酸乙酯 (90mL) 中, 然后加入0.05M磷酸水溶液 (pH2.1, 150mL), 在室温下搅拌5分钟。分离有机层和水层, 然后将水层用乙酸乙酯 (90mL) 萃取, 将合并的有机层用饱和食盐水洗涤2次, 用硫酸钠干燥。将得到的有机层过滤, 然后减压蒸馏除去溶剂, 得到化合物aa101 ((2S,4S)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧)吡咯烷-2-甲酸、Fmoc-cisHyp (THP)-OH) (4.57g, 产率: 80%)。

[3939] LCMS (ESI) $m/z = 460 (M+Na)^+$

[3940] 保留时间: 0.81分钟 (分析条件SQDFA05)

[3941] 化合物aa102、(2S,4R)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧基)吡咯烷-2-甲酸(Fmoc-Hyp(THP)-OH)的合成

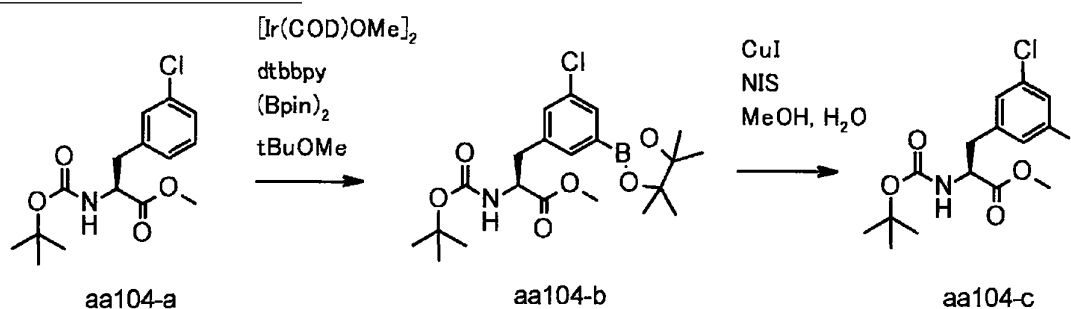


[3943] 使用化合物aa102-a ((2S,4R)-1-(9H-芴-9-基甲氧基羰基)-4-羟基吡咯烷-2-甲酸、Fmoc-Hyp-OH) (5g, 14.15mmol) 作为起始原料, 利用与化合物aa101的合成相同的方法得到化合物aa102 ((2S,4R)-1-(9H-芴-9-基甲氧基羰基)-4-(氧杂环己烷-2-基氧基)吡咯烷-2-甲酸、Fmoc-Hyp(THP)-OH) (5.15g, 83%)。

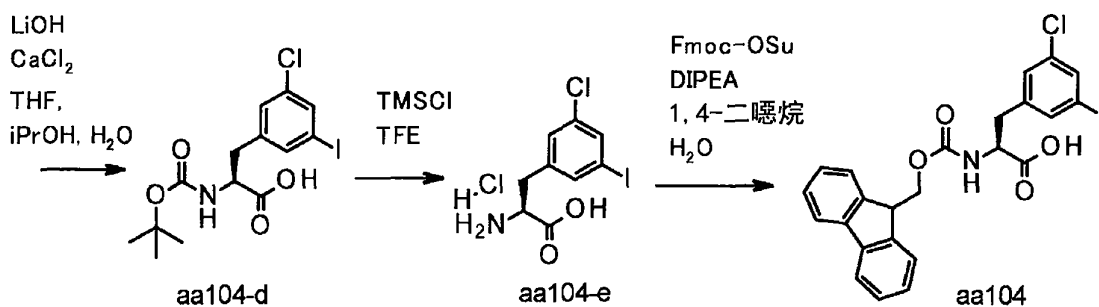
[3944] LCMS (ESI) $m/z = 438 (M+H)^+$

[3945] 保留时间: 0.85分钟 (分析条件SQDFA05)

[3946] 化合物aa104、(2S)-3-(3-氯-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸(Fmoc-Phe(3-I-5-Cl)-OH)的合成



[3947]



[3948] 将化合物aa104-a ((2S)-3-(3-氯苯基)-2-[(2-甲基丙烷-2-基)氧羰基氨基]丙酸甲酯) (1.05g, 3.35mmol) 溶解于甲基叔丁基醚 (16.73ml) 中, 加入双(频哪醇合)二硼 (2.55g, 10.04mmol)、(1,5-环辛二烯)(甲氧基)铱(I)二聚体 (0.111g, 0.167mmol)、4,4'-二叔丁基-2,2'-联吡啶 (0.090g, 0.335mmol), 室温下搅拌过夜。减压下蒸馏除去反应液中的溶剂, 利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化得到的残渣, 得到化合物aa104-b (0.920g, 63%)。

[3949] 保留时间: 1.06分钟 (分析条件SQDFA05)

[3950] $^1\text{H-NMR}$ (varian ascend 400, 400MHz, CDCl_3) δ 7.65-7.61 (m, 1H), 7.43 (bs, 1H), 7.21-7.20 (m, 1H), 5.01-4.98 (m, 1H), 4.55-4.54 (m, 1H), 3.74-3.73 (m, 3H), 3.14-3.10 (m, 1H), 3.02-2.97 (m, 1H), 1.43-1.41 (m, 12H), 1.34 (s, 9H)

[3951] 使化合物aa104-b (0.900g, 2.047mmol) 溶解于甲醇 (18.61ml) 和水 (1.861ml) 的混合溶液中, 加入碘化铜(I) (0.585g, 3.07mmol) 和N-碘代琥珀酰亚胺 (0.691g, 3.07mmol) 后, 在80℃下搅拌2小时。冷却至室温, 然后将反应液用硅藻土过滤, 在减压下从所得滤液中蒸馏除去溶剂。将浓缩残渣利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 进行纯化, 得到化合物aa104-c (0.703g, 78%)。

[3952] LCMS (ESI) m/z = 439.9 (M+H) +

[3953] 保留时间: 0.98分钟 (分析条件SQDFA05)

[3954] 使氯化钙 (2.65g, 23.88mmol) 悬浮于水 (6.63ml) 中, 加入氢氧化锂一水合物 (0.267g, 6.37mmol), 搅拌5分钟。依次加入异丙醇 (26.5ml)、化合物aa104-c (0.700g, 1.592mmol) 的四氢呋喃 (6.63ml) 溶液, 在室温下搅拌4小时。添加20%甲酸水溶液直至反应液的pH变为3左右, 然后加入甲基叔丁基醚进行萃取。将有机层用饱和氯化钠水溶液洗涤, 用无水硫酸钠干燥后, 减压下蒸馏除去溶剂, 得到化合物aa104-d (679mg, 1.595mmol)。将其与以同样的方式合成的另一批混合, 并进行下一步反应。

[3955] LCMS (ESI) m/z = 424 (M-H) -

[3956] 保留时间: 0.86分钟 (分析条件SQDFA05)

[3957] 将化合物aa104-d (1.09g, 2.56mmol) 溶解于TFE (12.8mL) 中, 加入TMSCl (0.485mL, 3.84mmol), 在室温下搅拌1小时。在减压下从反应液中蒸馏除去溶剂, 得到化合物aa104-e 的粗产物 (997mg)。

[3958] LCMS (ESI) m/z = 326 (M+H) +

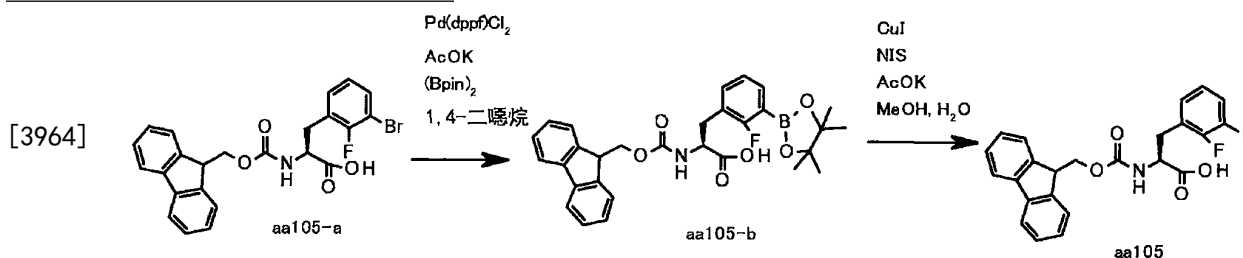
[3959] 保留时间: 0.43分钟 (分析条件SQDFA05)

[3960] 使化合物aa104-e (925mg, 2.56mmol) 悬浮于水 (10ml) 中, 然后依次加入二异丙基乙胺 (2.003ml, 11.50mmol)、1,4-二噁烷 (13.33ml)、N-(9-苄基甲氧基羰基氧基)琥珀酰亚胺 (862mg, 2.56mmol), 在室温下搅拌1小时。向反应液中加入20%甲酸水溶液, 减压下蒸馏除去1,4-二噁烷。向浓缩物中加入乙酸乙酯, 萃取有机层。将有机层用饱和氯化钠水溶液洗涤, 用无水硫酸钠干燥后, 减压下蒸馏除去溶剂。使所得残渣悬浮于甲基叔丁基醚/正己烷 (1/1) 中, 过滤分离, 得到化合物aa104 ((2S)-3-(3-氯-5-碘苯基)-2-(9H-苄-9-基甲氧基羰基氨基)丙酸 (Fmoc-Phe (3-I-5-Cl) -OH) (970mg, 69%)。

[3961] LCMS (ESI) m/z = 570 (M+Na) +

[3962] 保留时间: 0.99分钟 (分析条件SQDFA05)

[3963] 化合物aa105、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-3-碘苯基)丙酸(Fmoc-Phe(2-F-3-I)-OH)的合成



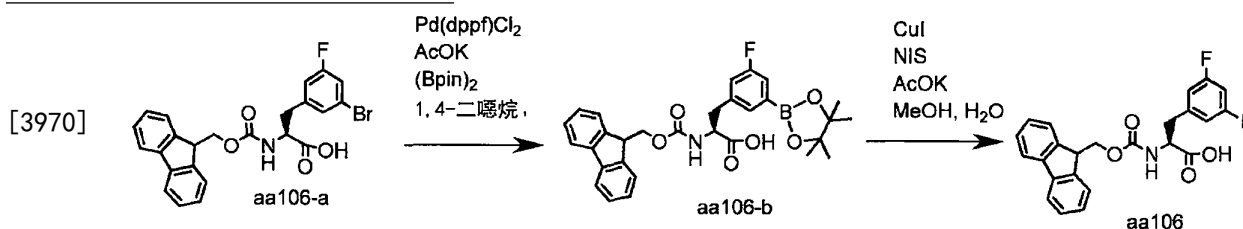
[3965] 将化合物aa105-a((2S)-3-(3-溴-2-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(2-F-3-Br)-OH(0.7g,1.445mmol)溶解于1,4-二噁烷(14.5mL)中,在室温下加入双(频哪醇合)二硼(1.468g,5.78mmol)、乙酸钾(0.397g,4.05mmol)、[1,1-双(二苯基膦基)二茂铁]二氯化钯(II)(0.212g,0.289mmol),在80℃搅拌5.5小时。5.5小时后,在室温下进一步加入双(频哪醇合)二硼(0.147g,0.578mmol)、乙酸钾(0.040g,0.405mmol)、[1,1-双(二苯基膦基)二茂铁]二氯化钯(II)(0.021g,0.029mmol),在80℃搅拌1.5小时。用硅藻土过滤反应液后,将母液减压浓缩,蒸馏除去1,4-二噁烷,得到化合物aa105-b的粗产物。将其与以同样方式合成的2批混合并用于下一步反应。

[3966] 将得到的化合物aa105-b(1.15g,2.17mmol)溶解于甲醇(9.75mL)和水(1.08mL)的混合溶剂中,在0℃下加入乙酸钾(0.425g,4.34mmol)、碘化铜(I)(1.16g,6.07mmol)、N-碘代琥珀酰亚胺(3.41g,15.17mmol),在80℃搅拌2小时。再次进行同样规模的反应,将2批反应液混合,减压浓缩而蒸馏除去甲醇。将所得残渣溶解于乙酸乙酯(80mL)中,用7.7~8.3%氨水溶液(40mL)洗涤3次,用1M磷酸水溶液(40mL)洗涤,用饱和氯化钠水溶液(40mL)洗涤。将有机层用无水硫酸钠干燥,过滤,然后减压浓缩。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化得到的残渣,得到化合物aa105((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-3-碘苯基)丙酸、Fmoc-Phe(2-F-3-I)-OH(1.55g,88%)。

[3967] LCMS(ESI) m/z=530(M-H) -

[3968] 保留时间:0.90分钟(分析条件SQDFA05)

[3969] 化合物aa106、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-氟-5-碘苯基)丙酸(Fmoc-Phe(3-I-5-F)-OH)的合成



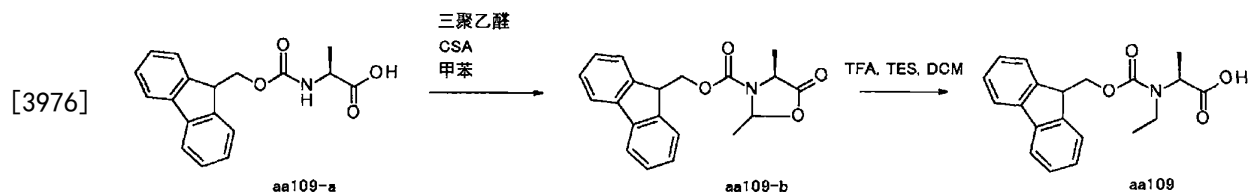
[3971] 使用化合物aa106-a((2S)-3-(3-溴-5-氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(3-Br-5-F)-OH(2.1g,4.335mmol)作为起始原料,利用与化合物aa105-b的合成相同的方法得到化合物aa106-b的粗产物。

[3972] 使用化合物aa106-b(1.152g,2.17mmol),利用与化合物aa105的合成相同的方法得到化合物aa106((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-氟-5-碘苯基)丙酸、Fmoc-Phe(3-I-5-F)-OH(1.54g,67%)。

[3973] LCMS(ESI) m/z=530(M-H) -

[3974] 保留时间:0.97分钟(分析条件SQDFA05)

[3975] 化合物aa109、(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸(Fmoc-EtAla-OH)的合成



[3977] 将化合物aa109-a((2S)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Ala-OH)(30g,96mmol)溶解于甲苯(321mL)中,加入三聚乙醛(19.10mL,145mmol)、CSA(2.24g,9.64mmol),在80℃搅拌3小时。冷却至室温,加入正己烷(300mL)和乙酸乙酯(600mL),将有机层用饱和碳酸氢钠水溶液、饱和食盐水洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂。将得到的浓缩物再次溶解于20%乙酸乙酯-己烷(400mL)中,用饱和碳酸氢钠水溶液、饱和食盐水洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到化合物aa109-b的粗产物(22.07g,68%)。

[3978] LCMS(ESI) $m/z=338$ (M+H) +

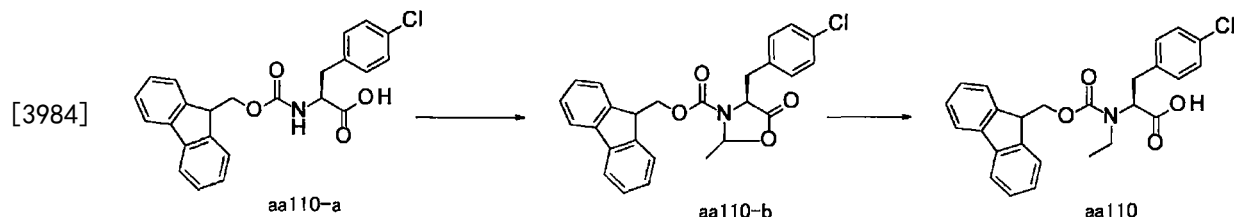
[3979] 保留时间:0.90分钟(分析条件SQDFA05)

[3980] 将得到的化合物aa109-b(22.04g,65.3mmol)溶解于DCM(218mL)中,加入TFA(150mL,1960mmol)、三乙基硅烷(104mL,653mmol),在室温搅拌2小时。减压浓缩后,将浓缩物溶解于DCM中。在减压下浓缩至200mL左右的溶液量,加入己烷(500mL),使目标物析出。过滤收集目标物,得到化合物aa109((2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸、Fmoc-EtAla-OH)(13.41g,61%)。

[3981] LCMS(ESI) $m/z=340$ (M+H) +

[3982] 保留时间:0.81分钟(分析条件SQDFA05)

[3983] 化合物aa110、(2S)-3-(4-氯苯基)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸(Fmoc-EtPhe(4-Cl)-OH)的合成



[3985] 将化合物aa110-a((2S)-3-(4-氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(4-Cl)-OH)(3.00g,7.11mmol)溶解于甲苯(17.8mL)中,加入三聚乙醛(0.940mL,7.11mmol)、CSA(0.165g,0.711mmol),在80℃搅拌过夜。冷却至室温,溶解于20%乙酸乙酯-己烷(300mL)中,用饱和碳酸氢钠水溶液洗涤2次,用饱和食盐水洗涤1次,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到化合物aa110-b的粗产物(2.63g,83%)。

[3986] LCMS(ESI) $m/z=448$ (M+H) +

[3987] 保留时间:1.06分钟(分析条件SQDFA05)

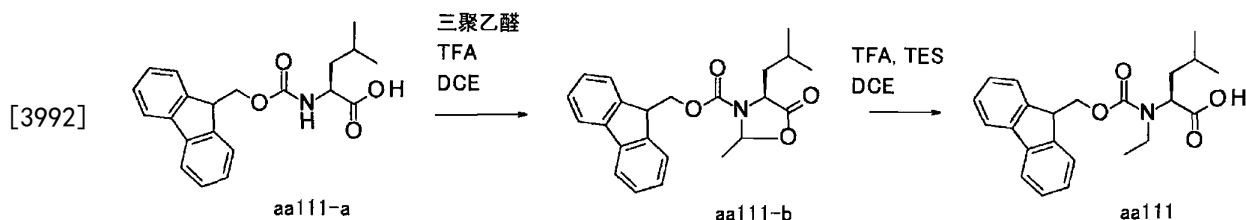
[3988] 将得到的化合物aa110-b(2.6g,5.8mmol)溶解于DCE(19.35mL)中,加入TFA(13.33mL,174mmol)、三乙基硅烷(9.25mL,58.0mmol),在60℃搅拌6小时,然后在室温下搅

拌过夜。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)对减压浓缩得到的粗产物进行纯化,得到化合物aa110((2S)-3-(4-氯苯基)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸、Fmoc-EtPhe(4-Cl)-OH)(1.46g,56%)。

[3989] LCMS (ESI) $m/z = 450$ (M+H) +

[3990] 保留时间:0.98分钟(分析条件SQDFA05)

[3991] 化合物aa111、(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-甲基戊酸(Fmoc-EtLeu-OH)的合成



[3993] 在氮气气氛下,使化合物aa111-a((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-甲基戊酸、Fmoc-Leu-OH)(4.95g,14.0mmol,CAS号35661-60-0)悬浮于DCE(17.5mL)中,加入三聚乙醛(5.61mL,42.0mmol)、TFA(9.65mL,126mmol),在50℃搅拌6小时。冷却至室温,减压浓缩,然后将所得残渣溶解于乙酸乙酯(40mL)中。将有机层用饱和碳酸氢钠水溶液(40mL)、饱和食盐水(40mL)洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到化合物aa111-b的粗产物。

[3994] LCMS (ESI) $m/z = 380$ (M+H) +

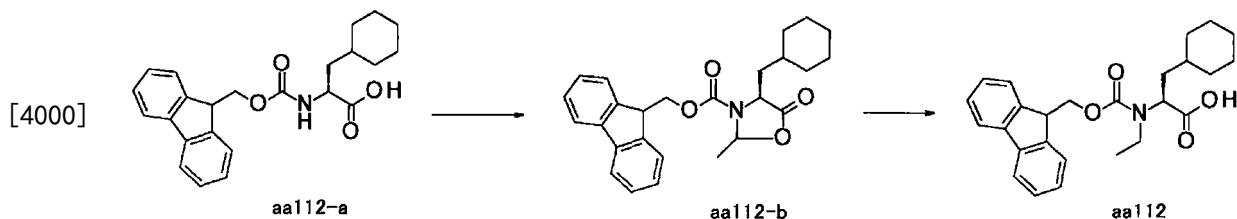
[3995] 保留时间:1.02分钟(分析条件SQDFA05)

[3996] 使通过上述所得的化合物aa111-b的全部量溶解于DCE(35mL)中,加入TFA(28.9mL,378mmol)、三乙基硅烷(20.1mL,126mmol),在60℃搅拌90分钟。将反应液冷却至室温,减压浓缩,然后与甲苯共沸蒸馏3次。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得残渣,得到化合物aa111((2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-甲基戊酸、Fmoc-EtLeu-OH)(3.15g,2个工序59%)。

[3997] LCMS (ESI) $m/z = 382$ (M+H) +

[3998] 保留时间:0.94分钟(分析条件SQDFA05)

[3999] 化合物aa112、(2S)-3-环己基-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸(Fmoc-EtCha-OH)的合成



[4001] 使用化合物aa112-a((2S)-3-环己基-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Cha-OH)(5.51g,14.0mmol,CAS号135673-97-1)作为起始原料,利用与化合物aa111-b的合成相同的方法得到化合物aa112-b的粗产物。

[4002] LCMS (ESI) $m/z = 420$ (M+H) +

[4003] 保留时间:1.12分钟(分析条件SQDFA05)

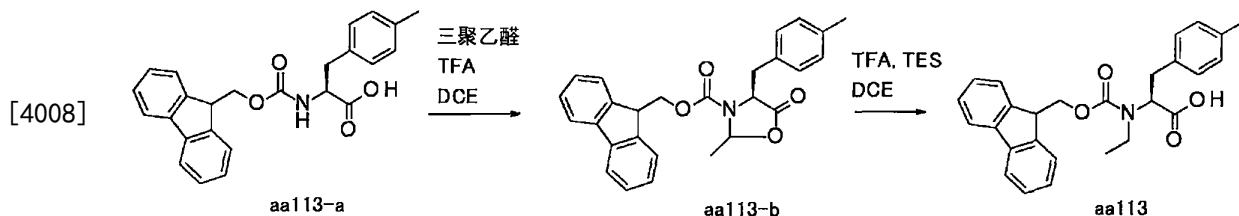
[4004] 使用上述所得化合物aa112-b的全部量,利用与化合物aa111的合成相同的方法得

到化合物aa112((2S)-3-环己基-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]丙酸、Fmoc-EtCha-OH)(4.78g,2个工序81%)。

[4005] LCMS (ESI) $m/z = 422$ (M+H) +

[4006] 保留时间:1.04分钟(分析条件SQDFA05)

[4007] 化合物aa113、(2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-(4-甲基苯基)丙酸(Fmoc-EtPhe(4-Me)-OH)的合成



[4009] 在氮气气氛下,使化合物aa113-a((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(4-甲基苯基)丙酸、Fmoc-Phe(4-Me)-OH)(5.62g,14.0mmol,CAS号199006-54-7)悬浮于二氯乙烷(DCE)(17.5mL)中,加入三聚乙醛(5.61mL,42.0mmol)、三氟乙酸(TFA)(9.65mL,126mmol),在60℃搅拌6小时。将得到的含有化合物aa113-b的反应液直接用于下一个工序。

[4010] LCMS (ESI) $m/z = 428$ (M+H) +

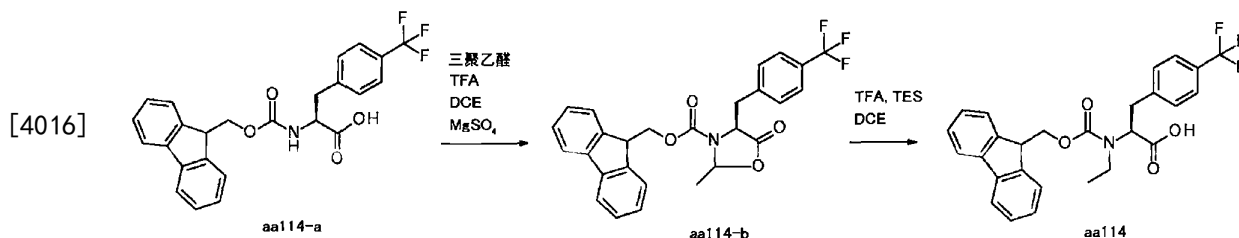
[4011] 保留时间:1.03分钟(分析条件SQDFA05)

[4012] 向所得化合物aa113-b的反应液中加入二氯乙烷(DCE)(17.5mL)、三氟乙酸(TFA)(19.3mL, 252mmol)、三乙基硅烷(TES)(20.1mL, 126mmol), 在60℃搅拌17小时。冷却至室温, 减压浓缩, 然后将所得残渣溶解于乙酸乙酯(40mL)中。将有机层用饱和碳酸氢钠水溶液(40mL)、饱和食盐水(40mL)洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂。将所得残渣溶解于乙腈(30mL)中, 用己烷(15mL)洗涤2次, 在减压下蒸馏除去溶剂。利用反相色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得残渣, 得到化合物aa113((2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-(4-甲基苯基)丙酸、Fmoc-EtPhe(4-Me)-OH)(4.4g, 2个工序73%)。

[4013] LCMS (ESI) m/z = 430 (M+H) +

[4014] 保留时间:0.95分钟(分析条件SQDFA05)

[4015] 化合物aa114、((2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-[4-(三氟甲基)苯基]丙酸(Fmoc-EtPhe(4-CF₃)-OH)的合成



[4017] 在氮气气氛下,使化合物aa114-a((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-[4-(三氟甲基)苯基]丙酸、Fmoc-Phe(4-CF₃)-OH)(4.04g,8.87mmol,CAS号247113-86-6)悬浮于DCE(11.1mL)中,加入无水硫酸镁(4.27g,35.4mmol)、三聚乙醛(3.55mL,26.6mmol)、三氟乙酸(TFA)(6.11mL,80mmol),在60℃搅拌3小时。进一步加入无水硫酸镁(2.14g,17.7mmol),在60℃搅拌1小时。将得到的含有化合物aa114-b的反应液直接用于下一步反

应。

[4018] LCMS (ESI) $m/z = 482 (M+H)^+$

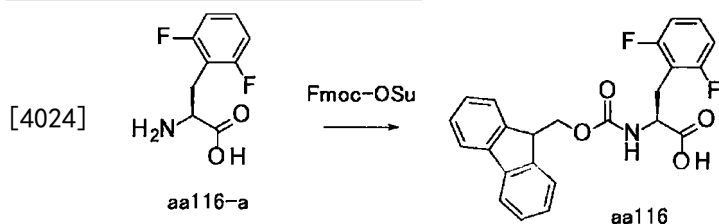
[4019] 保留时间:1.04分钟(分析条件SQDFA05)

[4020] 向得到的含有化合物aa114-b的反应液中加入DCE (11.1mL)、TFA (12.2mL, 159mmol)、三乙基硅烷 (12.7mL, 80mmol), 在60℃搅拌10小时。冷却至室温, 滤去硫酸镁, 然后减压浓缩。由于目标反应未完结, 将所得残渣溶解于DCE (22.2mL) 中, 加入TFA (18.3mL, 239mmol)、三乙基硅烷 (12.7mL, 80mmol), 在60℃搅拌8小时。冷却至室温, 减压浓缩, 然后将所得残渣溶解于乙酸乙酯 (40mL) 中。将有机层用饱和碳酸氢钠水溶液 (40mL)、饱和食盐水 (40mL) 洗涤, 用无水硫酸钠干燥, 在减压下蒸馏除去溶剂。将所得残渣溶解于乙腈 (30mL) 中, 用己烷 (15mL) 洗涤2次, 在减压下蒸馏除去溶剂。利用反相柱色谱 (水-乙腈, 含有0.1%甲酸) 纯化所得残渣, 得到化合物aa114 ((2S)-2-[乙基(9H-芴-9-基甲氧基羰基)氨基]-3-[4-(三氟甲基)苯基]丙酸、Fmoc-EtPhe(4-CF₃)-OH) (1.90g, 2个工序44%)。

[4021] LCMS (ESI) $m/z = 484 (M+H)^+$

[4022] 保留时间:0.97分钟(分析条件SQDFA05)

[4023] 化合物aa116、(2S)-3-(2,6-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸 (Fmoc-Phe(26-F2)-OH) 的合成

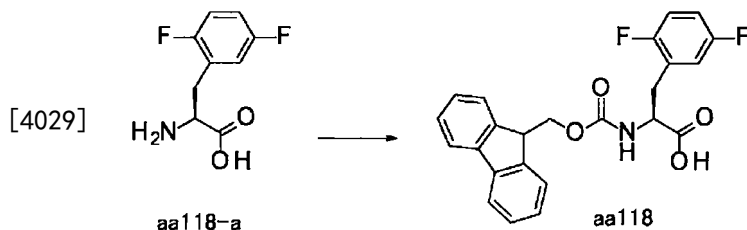


[4025] 将化合物aa116-a ((2S)-2-氨基-3-(2,6-二氟苯基)丙酸、H-Phe(26-F2)-OH) (1.00g, 4.97mmol) 溶解于1,4-二噁烷 (12mL) 和蒸馏水 (9mL) 的混合溶剂中, 加入二异丙基乙胺 (DIPEA) (3.03mL, 17.4mmol)、N-(9-芴基甲氧基羰基氧基)琥珀酰亚胺 (Fmoc-OSu) (1.761g, 5.22mmol), 在室温下搅拌1小时。向反应液中加入20%甲酸水溶液和二甲亚砜, 然后减压浓缩混合物将1,4-二噁烷蒸馏除去。利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化得到的浓缩物, 得到化合物aa116 ((2S)-3-(2,6-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(26-F2)-OH) (1.81g, 86%)。

[4026] LCMS (ESI) $m/z = 445.9 (M+Na)^+$

[4027] 保留时间:1.202分钟(分析条件SMDmethod_04)

[4028] 化合物aa118、(2S)-3-(2,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸 (Fmoc-Phe(25-F2)-OH) 的合成



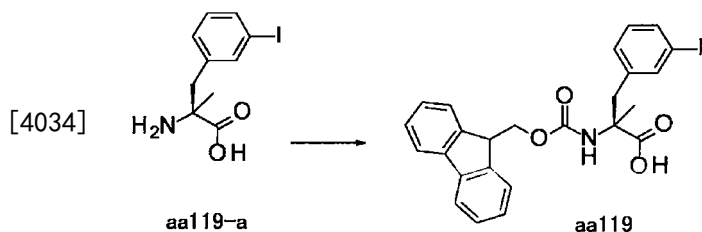
[4030] 使用化合物aa118-a ((2S)-2-氨基-3-(2,5-二氟苯基)丙酸、H-Phe(25-F2)-OH) (2g, 9.94mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法得到化合物aa118

[(2S)-3-(2,5-二氟苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(25-F2)-OH]的粗产物(2.43g,58%)。

[4031] LCMS (ESI) $m/z=424$ (M+H) +

[4032] 保留时间:0.85分钟(分析条件SQDFA05)

[4033] 化合物aa119、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸(Fmoc-(Me)Phe(3-I)-OH)的合成

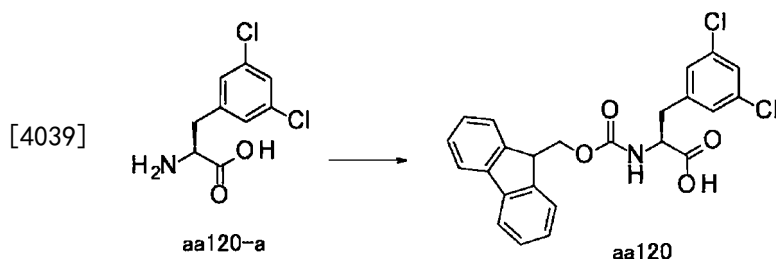


[4035] 使用化合物aa119-a((2S)-2-氨基-3-(3-碘苯基)-2-甲基丙酸、H-(Me)Phe(3-I)-OH)(1g,3.28mmol)作为起始原料,利用与化合物aa116的合成相同的方法得到化合物aa119((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘苯基)-2-甲基丙酸(Fmoc-(Me)Phe(3-I)-OH)(1.1g,64%)。

[4036] LCMS (ESI) $m/z=528$ (M+H) +

[4037] 保留时间:0.98分钟(分析条件SQDFA05)

[4038] 化合物aa120、(2S)-3-(3,5-二氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸(Fmoc-Phe(35-Cl2)-OH)的合成

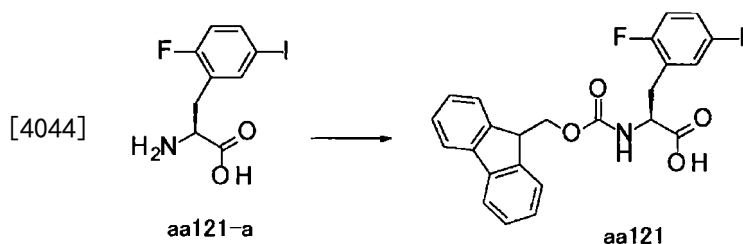


[4040] 使用化合物aa120-a((2S)-2-氨基-3-(3,5-二氯苯基)丙酸、H-Phe(35-Cl2)-OH)(4g,17.09mmol)作为起始原料,利用与化合物aa116的合成相同的方法,代替DIPEA而使用碳酸钠,得到化合物aa120((2S)-3-(3,5-二氯苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(35-Cl2)-OH)(6.2g,80%)。

[4041] LCMS (ESI) $m/z=456$ (M+H) +

[4042] 保留时间:0.94分钟(分析条件SQDFA05)

[4043] 化合物aa121、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-5-碘苯基)丙酸(Fmoc-Phe(2-F-5-I)-OH)的合成



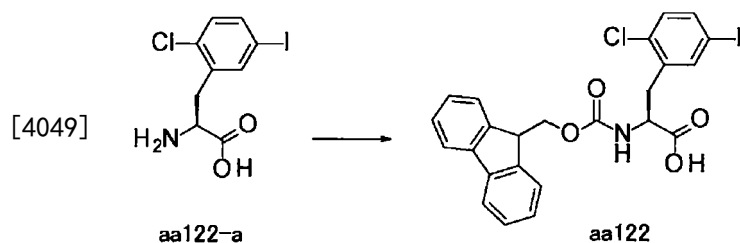
[4045] 使用化合物aa121-a((2S)-2-氨基-3-(2-氟-5-碘苯基)丙酸、H-Phe(2-F-5-I)-

OH) (1g, 3.24mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa121 ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(2-氟-5-碘苯基) 丙酸、Fmoc-Phe (2-F-5-I)-OH) (1.6g, 92%)。

[4046] LCMS (ESI) $m/z = 532$ (M+H) +

[4047] 保留时间: 0.94分钟 (分析条件SQDFA05)

[4048] 化合物aa122、(2S)-3-(2-氯-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸 (Fmoc-Phe (2-Cl-5-I)-OH) 的合成

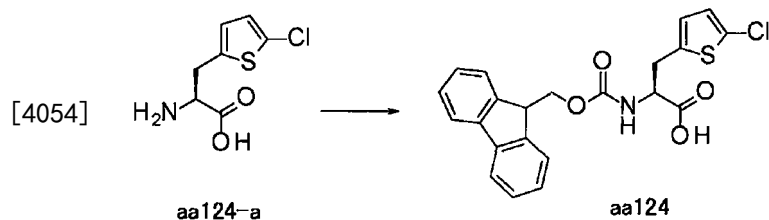


[4050] 使用化合物aa122-a ((2S)-2-氨基-3-(2-氯-5-碘苯基) 丙酸、H-Phe (2-Cl-5-I)-OH) (1g, 3.07mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa122 ((2S)-3-(2-氯-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸、Fmoc-Phe (2-Cl-5-I)-OH) (0.93g, 55%)。

[4051] LCMS (ESI) $m/z = 546$ (M-H) -

[4052] 保留时间: 0.97分钟 (分析条件SQDFA05)

[4053] 化合物aa124、(2S)-3-(5-氯噻吩-2-基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸 (Fmoc-Ala (2-Thie-5-Cl)-OH) 的合成

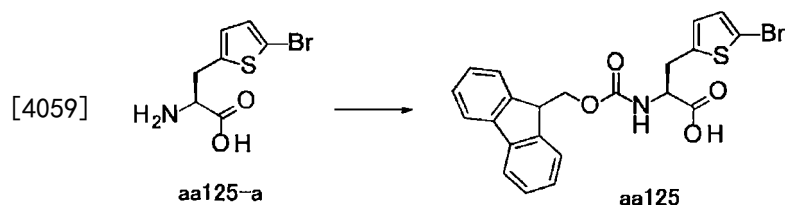


[4055] 使用化合物aa124-a ((2S)-2-氨基-3-(5-氯噻吩-2-基) 丙酸、H-Ala (2-Thie-5-Cl)-OH) (0.5g, 2.431mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa124 ((2S)-3-(5-氯噻吩-2-基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸、Fmoc-Ala (2-Thie-5-Cl)-OH) (0.87g, 84%)。

[4056] LCMS (ESI) $m/z = 426$ (M-H) -

[4057] 保留时间: 0.91分钟 (分析条件SQDFA05)

[4058] 化合物aa125、(2S)-3-(5-溴噻吩-2-基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸 (Fmoc-Ala (2-Thie-5-Br)-OH) 的合成



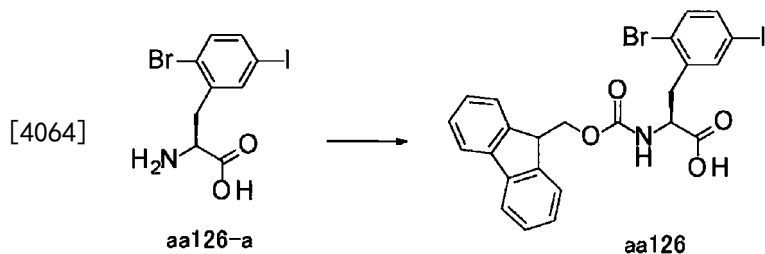
[4060] 使用化合物aa125-a ((2S)-2-氨基-3-(5-溴噻吩-2-基) 丙酸、H-Ala (2-Thie-5-Br)-OH) (0.5g, 2mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物

aa125 ((2S)-3-(5-溴噻吩-2-基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Ala(2-Thie-5-Br)-OH) (0.80g, 85%)。

[4061] LCMS (ESI) $m/z = 470$ (M-H) -

[4062] 保留时间: 0.91分钟 (分析条件SQDFA05)

[4063] 化合物aa126、(2S)-3-(2-溴-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸 (Fmoc-Phe(2-Br-5-I)-OH) 的合成

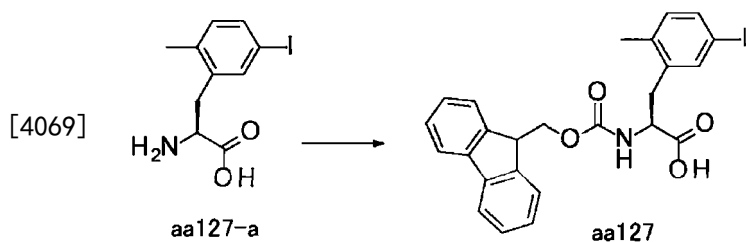


[4065] 使用化合物aa126-a ((2S)-2-氨基-3-(2-溴-5-碘苯基)丙酸、H-Phe(2-Br-5-I)-OH) (2g, 5.41mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa126 ((2S)-3-(2-溴-5-碘苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸、Fmoc-Phe(2-Br-5-I)-OH) (0.80g, 25%)。

[4066] LCMS (ESI) $m/z = 590$ (M-H) -

[4067] 保留时间: 0.96分钟 (分析条件SQDFA05)

[4068] 化合物aa127、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(5-碘-2-甲基苯基)丙酸 (Fmoc-Phe(2-Me-5-I)-OH) 的合成

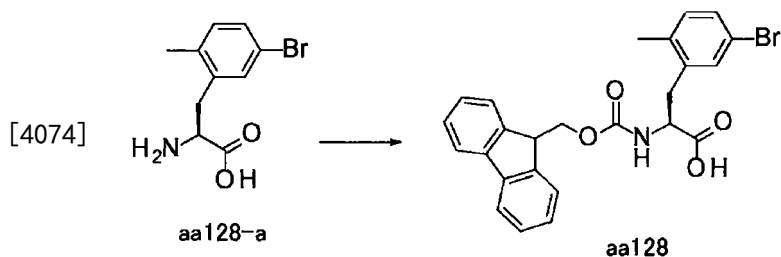


[4070] 使用化合物aa127-a ((2S)-2-氨基-3-(5-碘-2-甲基苯基)丙酸、H-Phe(2-Me-5-I)-OH) (1.651g, 5.41mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa127 ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(5-碘-2-甲基苯基)丙酸、Fmoc-Phe(2-Me-5-I)-OH) (2.87g, quant.)。

[4071] LCMS (ESI) $m/z = 526$ (M-H) -

[4072] 保留时间: 0.97分钟 (分析条件SQDFA05)

[4073] 化合物aa128、(2S)-3-(5-溴-2-甲基苯基)-2-(9H-芴-9-基甲氧基羰基氨基)丙酸 (Fmoc-Phe(2-Me-5-Br)-OH) 的合成



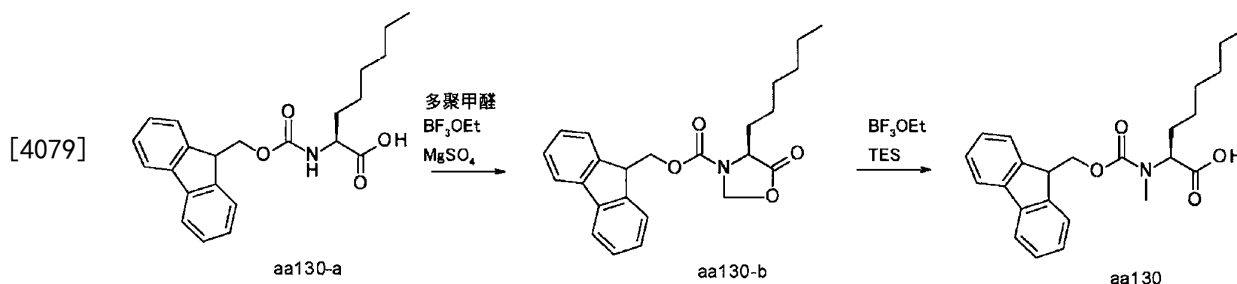
[4075] 使用化合物aa128-a ((2S)-2-氨基-3-(5-溴-2-甲基苯基)丙酸、H-Phe(2-Me-5-

Br)-OH) (1.396g, 5.41mmol) 作为起始原料, 利用与化合物aa116的合成相同的方法, 得到化合物aa128 ((2S)-3-(5-溴-2-甲基苯基)-2-(9H-芴-9-基甲氧基羰基氨基) 丙酸、Fmoc-Phe(2-Me-5-Br)-OH) (2.91g, quant.)。

[4076] LCMS (ESI) $m/z = 478$ (M-H) -

[4077] 保留时间: 0.96分钟 (分析条件SQDFA05)

[4078] 化合物aa130、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]辛酸 (Fmoc-MeAOC(2)-OH) 的合成

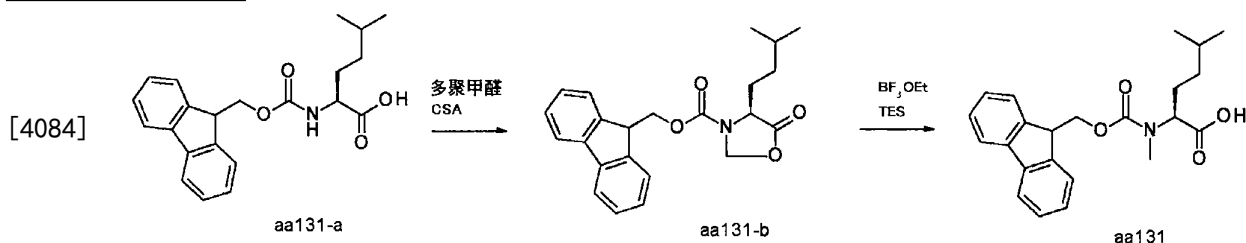


[4080] 使用化合物aa130-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]辛酸、Fmoc-AOC(2)-OH) (6.15g, 16.12mmol) 作为起始原料, 利用与化合物aa069-b的合成相同的方法, 得到化合物aa130-b的粗产物。进一步使用化合物aa130-b并利用与化合物aa069的合成相同的方法, 得到化合物aa130 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]辛酸、Fmoc-MeAOC(2)-OH) (6.4g, 2个工序100%)。

[4081] LCMS (ESI) $m/z = 396.3$ (M+H) +

[4082] 保留时间: 1.00分钟 (分析条件SQDFA05)

[4083] 化合物aa131、(2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸 (Fmoc-MeH1e-OH) 的合成

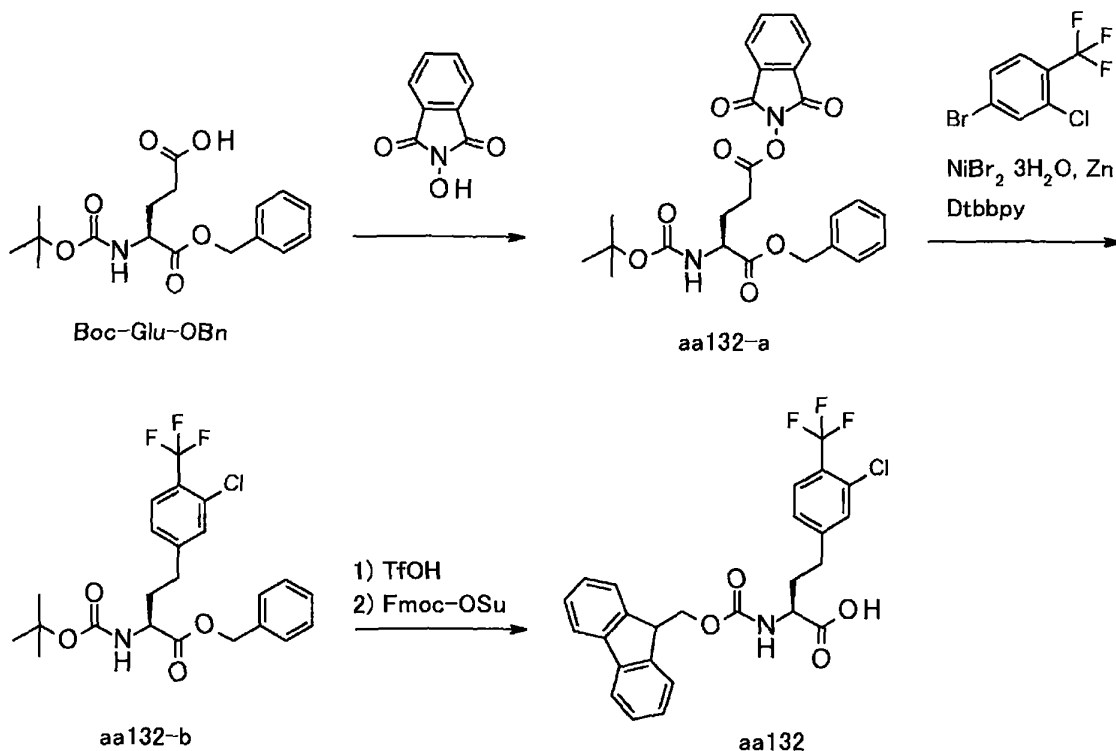


[4085] 使用化合物aa131-a ((2S)-2-[9H-芴-9-基甲氧基羰基氨基]-5-甲基己酸、Fmoc-H1e-OH) (20g, 54.4mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法, 得到化合物aa131-b的粗产物。进一步使用化合物aa131-b并利用与化合物aa078的合成相同的方法, 得到化合物aa131 ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-甲基己酸、Fmoc-MeH1e-OH) (21.5g, quant.)。

[4086] LCMS (ESI) $m/z = 382$ (M+H) +

[4087] 保留时间: 0.95分钟 (分析条件SQDFA05)

[4088] 化合物aa132、(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基) 丁酸、Fmoc-Hph(4-CF3-3-Cl)-OH的合成



[4089]

[4090] 在氮气气氛、0℃下,向(4S)-4-[(2-甲基丙烷-2-基)氧羰基氨基]-5-氧代-5-苯基甲氧基戊酸(Boc-Glu-OBn、CAS号30924-93-7)(200g,592.82mmol)、N-羟基邻苯二甲酰亚胺(106g,649.78mmol,1.10当量)、DMAP(3.6g,29.47mmol,0.05当量)的THF(2L)溶液中,以滴加的方式加入DIC(138mL,1.54当量)。将反应液在25℃搅拌16小时,过滤除去固形物,在减压下从滤液中蒸馏除去溶剂。将残渣用甲苯稀释,过滤除去所产生的固体,在减压下从滤液中蒸馏除去溶剂。利用重结晶(丙酮/庚烷)纯化残渣,得到化合物aa132-a(1-O-苄基5-O-(1,3-二氧化代异吲哚-2-基)(2S)-2-[(2-甲基丙烷-2-基)氧羰基氨基]戊二酸酯)(230克,80%)。

[4091] LCMS (ESI) $m/z = 505.2 (M+Na)^+$

[4092] 保留时间:0.992分钟(分析条件SMDmethod_16)

[4093] 将溴化镍三水合物($NiBr_2 \cdot 3H_2O$)(4g,0.07当量)和4,4'-二叔丁基-2,2'-联吡啶(dtbpy,CAS号72914-19-3)(3.9g,14.55mmol,0.07当量)加入到DMA(500mL)中,在氮气气氛下,在50℃搅拌2小时以制备Ni溶液。

[4094] 向化合物aa132-a(100g,207.3mmol)、锌粉末(70g,5当量)和4-溴-2-氯-1-(三氟甲基)苯(CAS号467435-07-0,160g,617mmol,3当量)的DMA(500mL)混合液中,添加之前制备的Ni溶液,在25℃搅拌16小时。向反应液中加入EDTA·2Na水溶液(10%),用乙酸乙酯萃取。将合并的有机层用饱和食盐水洗涤,然后用无水硫酸钠干燥,在减压下蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚)纯化所得残渣,得到化合物aa132-b(75g,77%)。

[4095] LCMS (ESI) $m/z = 494 (M+Na)^+$

[4096] 保留时间:2.863分钟(分析条件SMDmethod_17)

[4097] 将化合物aa132-b(75g,158.93mmol)的甲苯溶液(900mL)冷却至0℃,以滴加的方式向其中加入三氟甲磺酸($TfOH$)(42mL,3.00当量)。在室温下搅拌1小时后,加入水(75mL)。用水萃取该混合液,将合并的水层用乙酸乙酯萃取。将合并的有机层用水洗涤,用无水硫酸

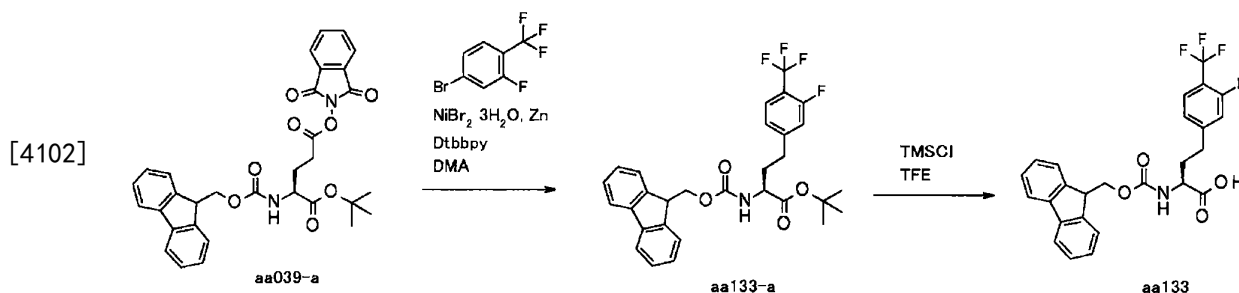
钠干燥,然后在减压下蒸馏除去溶剂。向残渣中加入乙腈/水(900/900mL),用氢氧化钠水溶液(48%)将pH调节至7。向该溶液中加入Fmoc-OSu(51.2g,151.93mmol,0.95当量),边将pH保持在7.8-8.0,边在室温下搅拌16小时。过滤反应液,将滤液用6mol/L盐酸水溶液调节pH至2。收集析出的固体,在50℃下干燥,得到化合物aa132((2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸、Fmoc-Hph(4-CF₃-3-Cl)-OH)(70g,87%)。

[4098] LCMS (ESI) m/z=525.8 (M+Na) +

[4099] 保留时间:2.180分钟(分析条件SMDmethod_21)

[4100] ¹H-NMR (300MHz, DMSO-d₆) δ12.70 (s, 1H), 7.91 (d, J=7.5Hz, 2H), 7.79-7.59 (m, 5H), 7.45-7.28 (m, 5H), 4.40-4.19 (m, 3H), 3.96-3.88 (m, 1H), 2.82-2.60 (m, 2H), 2.11-1.77 (m, 2H)

[4101] 化合物aa133、(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸(Fmoc-Hph(4-CF₃-3-F)-OH)的合成



[4103] 将溴化镍三水合物(NiBr₂·3H₂O)(71.5g,263mmol,0.3当量)和4,4'-二叔丁基-2,2'-联吡啶(dtbbpy,CAS号72914-19-3)(70.56g,263mmol,0.3当量)加入到DMA(2L)中,在氮气气氛下于50℃搅拌3小时而制备Ni溶液。

[4104] 在氮气气氛下,将化合物aa039-a(1-O-叔丁基5-O-(1,3-二氧代异吲哚-2-基)(2S)-2-(9H-芴-9-基甲氧基羰基氨基)戊二酸酯)(500g,876mmol)、锌粉(287g,4.38mol,5当量)以及4-溴-2-氟-1-(三氟甲基)苯(CAS号142808-15-9,425.87g,1.753mol,2当量)的DMA(2L)混合液,在室温下搅拌1小时,其中所述化合物aa039-a是使用化合物Fmoc-Glu-OtBu((4S)-4-(9H-芴-9-基甲氧基羰基氨基)-5-[(2-甲基丙烷-2-基)氧基]-5-氧代戊酸、CAS号84793-07-7)作为原料,按照本实施例记载的方法合成的。向该混合液中加入之前制备的Ni溶液,在室温下搅拌16小时。向反应液中加入EDTA·2Na水溶液(4L,10%),边用乙酸乙酯洗涤,边过滤除去固体。将滤液用饱和食盐水洗涤后,用无水硫酸钠干燥,在减压下蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚)纯化所得残渣,得到化合物aa133-a(230g,43%)。

[4105] LCMS (ESI) m/z=566.2 (M+Na) +

[4106] 保留时间:1.317分钟(分析条件SMDmethod_18)

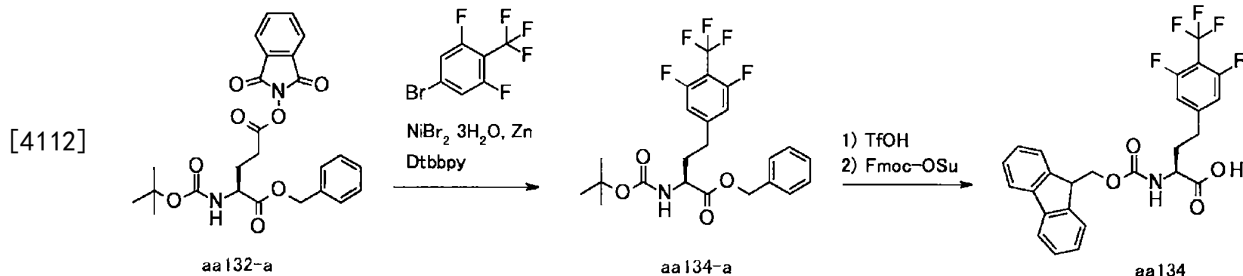
[4107] 将得到的化合物aa133-a(230g,423mmol)和三甲基氯硅烷(TMSCl)(137.9g,1.269mol)的三氟乙醇(TFE)(2.3L)混合液在室温下搅拌1小时,过滤收集析出的固体。将所得固体溶解于TBME中并在减压下蒸馏除去溶剂,该操作重复数次,得到目标化合物aa133((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-[3-氟-4-(三氟甲基)苯基]丁酸、Fmoc-Hph(4-CF₃-3-F)-OH)(190g,90%)。

[4108] LCMS (ESI) m/z=510.2 (M+Na) +

[4109] 保留时间:1.585分钟(分析条件SMDmethod_13)

[4110] $^1\text{H-NMR}$ (300MHz, DMSO- d_6) δ 12.69 (s, 1H), 7.90 (d, $J=7.5\text{Hz}$, 2H), 7.81-7.66 (m, 4H), 7.47-7.37 (m, 3H), 7.37-7.29 (m, 2H), 7.25 (d, $J=8.1\text{Hz}$, 1H), 4.44-4.14 (m, 3H), 3.97-3.84 (m, 1H), 2.80-2.63 (m, 2H), 2.12-1.81 (m, 2H)。

[4111] 化合物aa134、(2S)-4-[3,5-二氟-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸、Fmoc-Hph(4-CF₃-35-F2)-OH的合成



[4113] 将溴化镍三水合物($\text{NiBr}_2 \cdot 3\text{H}_2\text{O}$) (13.5g, 49.7mmol, 0.3当量)和4,4'-二叔丁基-2,2'-联吡啶(dtbbpy, CAS号72914-19-3) (13.3g, 49.7mmol, 0.3当量)加入到DMA (400mL)中,在氮气气氛下,在50℃搅拌3小时而制备Ni溶液。

[4114] 将化合物aa132-a (1-0-苄基-5-0-(1,3-二氧代异吲哚-2-基) (2S)-2-[(2-甲基丙烷-2-基)氧羰基氨基]戊二酸酯 (80g, 166mmol)、锌粉 (54.2g, 829mmol, 5当量)和4-溴-1,3-二氟-2-(三氟甲基)苯 (CAS号156243-64-0, 86.6g, 332mmol, 2当量)的DMA (400mL)混合液在氮气气氛、室温下搅拌1小时,添加之前制备的Ni溶液,在室温下搅拌16小时。向反应液中加入EDTA·2Na水溶液 (800mL, 10%),过滤除去固体。将滤液用乙酸乙酯萃取,将合并的有机层用饱和食盐水洗涤,然后用无水硫酸钠干燥,减压蒸馏除去溶剂。利用硅胶柱色谱(乙酸乙酯/石油醚)纯化所得残渣,得到化合物aa134-a (57.2g, 69%)。

[4115] LCMS (ESI) $m/z=496$ ($M+\text{Na}$) +

[4116] 保留时间:1.544分钟(分析条件SMDmethod_15)

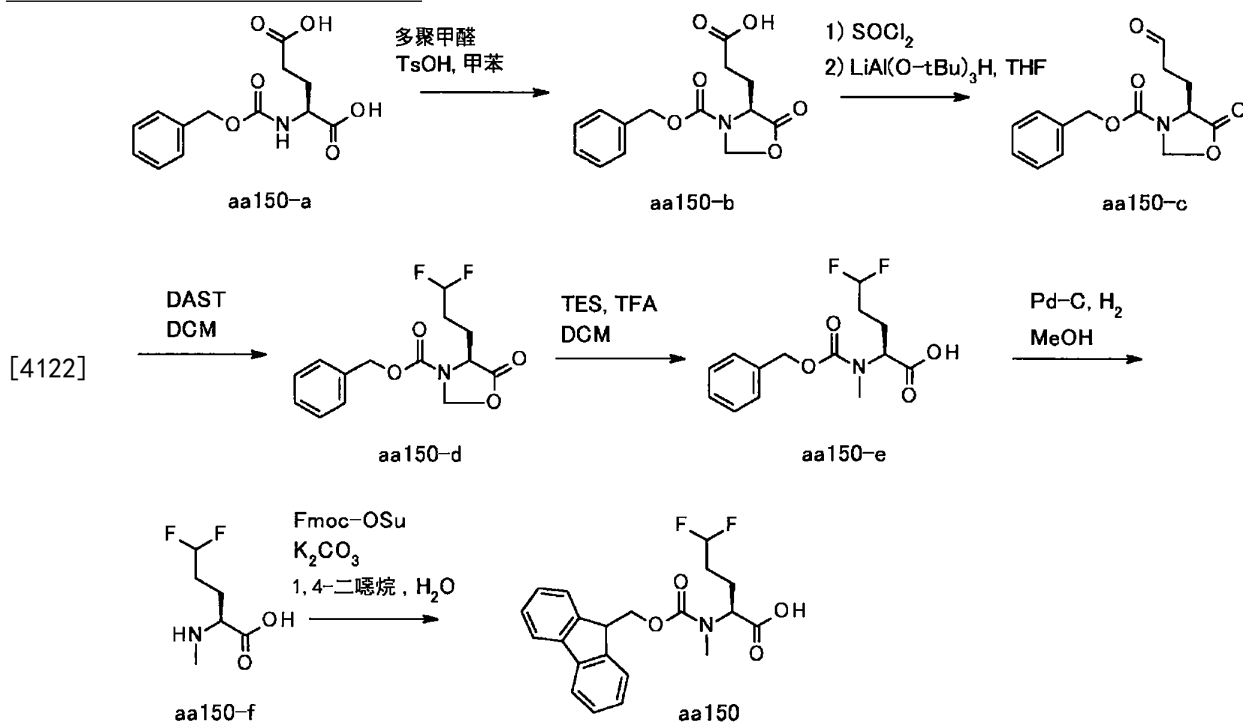
[4117] 将化合物aa134-a (57.2g, 121mmol)的甲苯混合液 (690mL)冷却至0℃,以滴加的方式加入三氟甲磺酸(TfOH) (54.4g, 362mmol, 3当量)。在室温下搅拌1小时后,加入水 (58mL)。将该混合液用水萃取,将合并的水层用乙酸乙酯萃取。用水洗涤合并的有机层,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到60g残渣。向残渣中加入乙腈/水 (400/400mL),用氢氧化钠水溶液 (48%)将pH调节至7。向该溶液中加入Fmoc-OSu (36.6g, 108.6mmol, 0.9当量),用氢氧化钠水溶液 (48%)将pH调节至8.0,然后在室温下搅拌16小时。边用乙腈/水 (1/1)洗涤,边过滤反应液而除去固体成分。用乙腈稀释滤液,用6mol/L盐酸水溶液调节至酸性,将由此而析出的固体通过过滤进行收集,得到化合物aa134 ((2S)-4-[3,5-二氟-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酸、Fmoc-Hph(4-CF₃-35-F2)-OH) (52g, 83%)。

[4118] LCMS (ESI) $m/z=528.45$ ($M+\text{Na}$) +

[4119] 保留时间:3.538分钟(分析条件SMDmethod_14)

[4120] $^1\text{H-NMR}$ (300MHz, DMSO- d_6) δ 12.69 (s, 1H), 7.90 (d, $J=7.5\text{Hz}$, 2H), 7.78-7.54 (m, 3H), 7.48-7.20 (m, 6H), 4.33 (d, $J=6.3\text{Hz}$, 2H), 4.24 (t, $J=6.9\text{Hz}$, 1H), 3.97-3.84 (m, 1H), 2.79-2.65 (m, 2H), 2.15-2.00 (m, 1H), 2.00-1.83 (m, 1H)

[4121] 化合物aa150、((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5,5,5-三氟戊酸、Fmoc-MeNva (5-F2)-OH)的合成



[4123] 将化合物aa150-a ((2S)-2-(苯基甲氧基羰基氨基)戊二酸) (50g, 177.8mmol)、多聚甲醛 (11.87g) 和对甲苯磺酸 (1.84g, 10.69mmol) 的甲苯 (500mL) 混合液在120℃下搅拌16小时。放置冷却至室温, 用乙酸乙酯稀释反应液, 用饱和食盐水洗涤后, 用无水硫酸钠干燥, 在减压下蒸馏除去溶剂, 得到化合物aa150-b的粗产物 (52g, 96%)。该粗产物不经过纯化地用于下一步反应。

[4124] 将化合物aa150-b (4g, 13.64mmol) 的亚硫酸二氯 (50mL) 溶液在85℃下搅拌1小时后, 在减压下蒸馏除去溶剂。将残渣溶解于THF (20mL) 中, 在氮气气氛下冷却至-78℃。历时2.5小时向其中滴加三叔丁氧基氢化铝锂 (2.76g, 10.87mmol) 的THF (20mL) 溶液。在-78℃搅拌3小时后, 向反应液中加入水, 过滤除去析出物。将滤液用乙酸乙酯萃取, 将有机层用饱和食盐水洗涤, 然后用无水硫酸钠干燥, 在减压下蒸馏除去溶剂。利用硅胶柱色谱 (乙酸乙酯/石油醚) 纯化所得残渣, 得到化合物aa150-c (2g)。

[4125] $^1\text{H-NMR}$ (400MHz, CDCl_3) δ 7.41-7.32 (m, 5H), 5.49 (br. s, 1H), 5.27-5.11 (m, 3H), 4.38-4.33 (m, 1H), 2.58-2.19 (m, 4H)

[4126] 在氮气气氛、0℃下, 向化合物aa150-c (450mg, 1.62mmol) 的DCM (20mL) 溶液中加入N,N-二乙基氨基三氟化硫 (DAST) (780mg, 4.84mmol), 在室温下搅拌16小时。向反应液中加入水后, 用DCM稀释, 依次用碳酸氢钠水溶液和饱和食盐水洗涤。将有机层用无水硫酸钠干燥, 减压下蒸馏除去溶剂。利用硅胶柱色谱 (乙酸乙酯/石油醚) 纯化所得残渣, 得到化合物aa150-d (0.35g, 72%)。将其与以同样方式合成的另一批混合进行下一步反应。

[4127] $^1\text{H-NMR}$ (400MHz, CDCl_3) δ 7.42-7.35 (m, 5H), 5.97-5.58 (m, 2H), 5.25-5.16 (m, 3H), 4.50-4.35 (m, 1H), 2.14-1.68 (m, 4H)

[4128] $^{19}\text{F-NMR}$ (400MHz, CDCl_3) δ -116.562

[4129] 将化合物aa150-d (1g, 3.34mmol) 和TES (12.63g, 109mmol) 溶解于TFA/DCM (10/

10mL) 中,在室温下搅拌4天,然后在减压下蒸馏除去溶剂。将残渣用碳酸氢钠水溶液稀释,用醚洗涤,然后用2N盐酸水调节pH至3。用DCM萃取,将有机层用饱和食盐水洗涤后,用无水硫酸钠干燥,在减压下蒸馏除去溶剂,由此得到化合物aa150-e的粗产物(0.6g)。该粗产物不经过纯化地用于下一步反应。

[4130] 将化合物aa150-e (0.6g) 和钯碳(10%, 60mg) 的甲醇(10mL) 混合液在约3atm的氢气气氛下搅拌16小时。过滤除去钯碳,在减压下从滤液中蒸馏除去溶剂,得到化合物aa150-f的粗产物(0.23g)。该粗产物不经过纯化地用于下一步反应。将其与以同样方式合成的另一批混合并进行下一步反应。

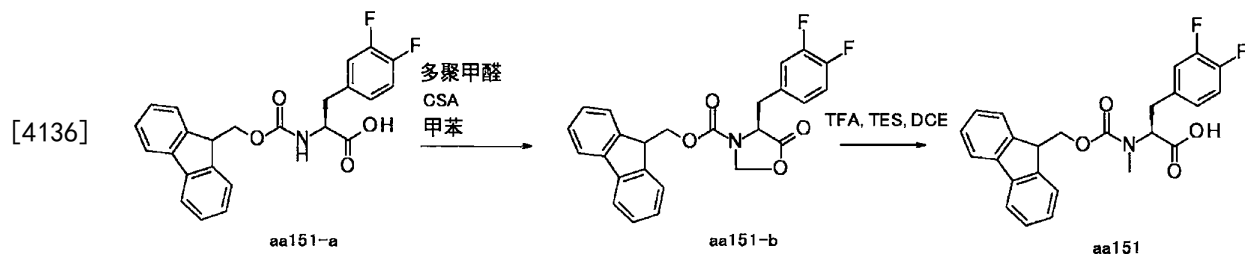
[4131] 向化合物aa150-f (0.3g, 1.79mmol) 和碳酸钾(745mg, 5.4mmol) 的1,4-二噁烷/水(5/5mL) 混合液中加入Fmoc-OSu (0.9g, 1.5当量) 并搅拌2小时。用水稀释反应液,用乙醚洗涤后,用2N盐酸水调节至pH3。用乙酸乙酯萃取3次,将合并的有机层用饱和食盐水洗涤,然后用无水硫酸钠干燥,在减压蒸馏除去溶剂。利用反相柱色谱(含有0.05%TFA的乙腈/含有0.05%TFA的蒸馏水) 纯化所得残渣,得到化合物aa150((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5,5,5-三氟戊酸、Fmoc-MeNva(5-F2)-OH) (0.2g, 29%)。以同样方式合成的另一批也用于本实施例的肽合成中。

[4132] 保留时间:3.153分钟(分析条件SMDmethod_19)

[4133] $^1\text{H-NMR}$ (300MHz, DMSO-d₆) δ 12.94 (br. s, 1H), 7.92-7.88 (d, J=7.2Hz, 2H), 7.66-7.61 (m, 2H), 7.44-7.31 (m, 4H), 6.35-5.75 (m, 1H), 4.49-4.26 (m, 4H), 2.72 (s, 3H), 1.78-1.65 (m, 4H)

[4134] $^{19}\text{F-NMR}$ (300MHz, DMSO-d₆) δ -115.730

[4135] 化合物aa151、((2S)-3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe(34-F2)-OH) 的合成

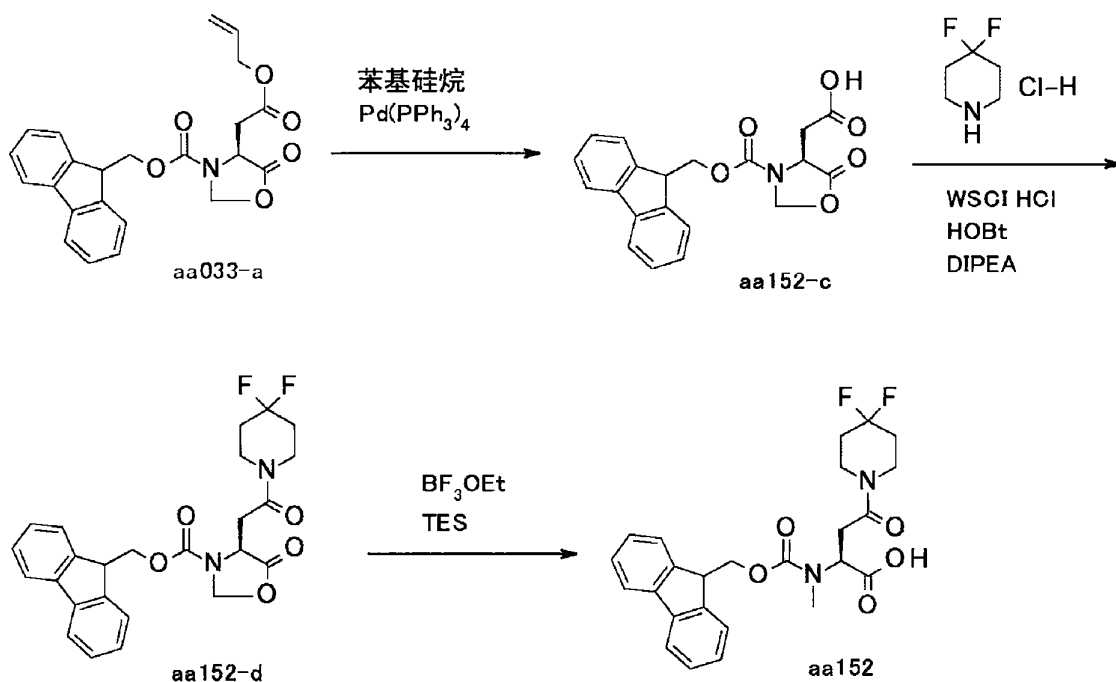


[4137] 使用化合物aa151-a((2S)-3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-Phe(34-F2)-OH) (105mg, 0.247mmol) 作为起始原料,利用与化合物aa078-b的合成相同的方法,得到化合物aa151-b的粗产物。进而使用aa151-b并利用与化合物aa060的合成相同的方法得到化合物aa151((2S)-3-(3,4-二氟苯基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、Fmoc-MePhe(34-F2)-OH) (74.4mg, 2个工序69%)。

[4138] LCMS (ESI) m/z = 438 (M+H) +

[4139] 保留时间:0.88分钟(分析条件SQDFA05)

[4140] 化合物aa152、((2S)-4-(4,4-二氟吡啶-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsn(pip-4-F2)-OH) 的合成



[4141]

[4142] 向化合物aa033-a ((4S)-5-氧代-4-(2-氧代-2-丙-2-烯氧基乙基)-1,3-噁唑烷-3-甲酸9H-芴-9-基甲酯) (10.3g, 25.3mmol) 的DCM (25.3mL) 混合液中加入苯基硅烷 (2.176ml, 17.7mmol)、四(三苯基膦)钯(0) (146mg, 0.126mmol), 在室温下搅拌50分钟。将反应液用TBME (10v/w) 稀释并用5%碳酸氢钠水溶液洗涤。将水层用磷酸调节pH至4并用TBME萃取。将得到的有机层用饱和食盐水/水 (1/1) 洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa152-c (9.12g, 98%)。

[4143] LCMS (ESI) $m/z = 368$ (M+H) +

[4144] 保留时间: 0.72分钟 (分析条件SQDFA05)

[4145] 在0℃下, 向WSCl · HCl (5.7g, 29.7mmol) 的DMF (70.8mL) 悬浮液中加入化合物aa152-c (9.1g, 24.77mmol)、HOBT (3.68g, 27.2mmol), 在0℃搅拌30分钟。向其中加入4,4-二氟哌啶盐酸盐 (4.29g, 27.2mmol) 和DIPEA (4.39mL, 24.77mL), 在0℃搅拌1小时。将反应液用乙酸乙酯稀释, 依次用0.5mol/L盐酸水、水、饱和碳酸氢钠水溶液/水 (1/1)、饱和食盐水/水 (1/1) 洗涤。将所得有机层用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa152-d (10.87g, 93%)。

[4146] LCMS (ESI) $m/z = 471$ (M+H) +

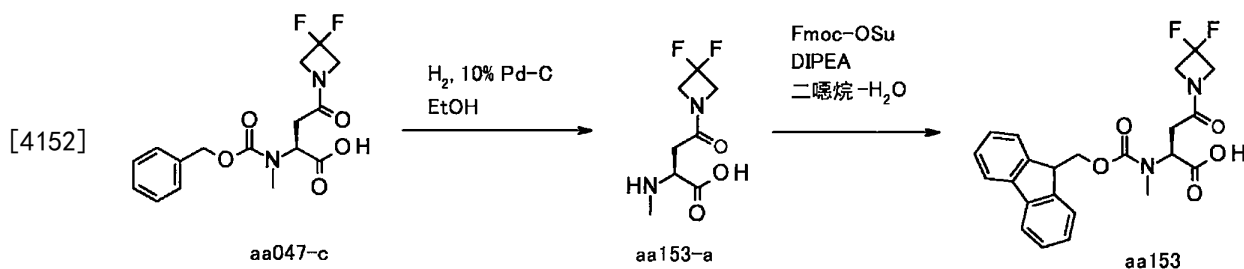
[4147] 保留时间: 0.85分钟 (分析条件SQDFA05)

[4148] 使用得到的化合物aa152-d (10.87g), 利用与化合物aa069的合成相同的方法反应, 然后利用反相柱色谱 (0.1%甲酸水溶液/0.1%甲酸乙腈溶液) 纯化, 由此得到化合物aa152 ((2S)-4-(4,4-二氟哌啶-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸 (Fmoc-MeAsn(pip-4-F2)-OH) (10.6g, 91%)。

[4149] LCMS (ESI) $m/z = 473$ (M+H) +

[4150] 保留时间: 0.78分钟 (分析条件SQDFA05)

[4151] 化合物aa153、((2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsn(Aze-3-F2)-OH) 的合成



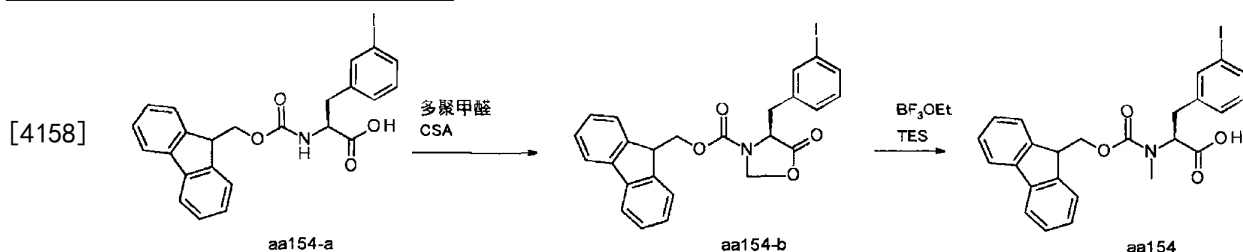
[4153] 将化合物aa047-c ((2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[甲基(苯基甲氧基羰基)氨基]-4-氧代丁酸) (500mg, 1.403mmol) 和10% 钯碳 (50w/w% 水, 100mg) 的乙醇 (15mL) 悬浮液在氢气气氛、室温下搅拌13小时15分钟, 然后用硅藻土过滤反应混合物, 将得到的滤液减压浓缩, 得到化合物aa153-a的粗产物 (324mg)。

[4154] 将化合物aa153-a (324mg) 溶解于蒸馏水 (5mL) 中, 加入1,4-二噁烷 (5mL) 和二异丙基乙胺 (DIPEA) (1.019mL, 5.83mmol)、N-(9-芴基甲氧基羰基氧基) 琥珀酰亚胺 (Fmoc-OSu) (492mg, 1.458mmol), 在室温下搅拌30分钟。向反应液中加入水 (5mL) 和己烷/甲基环戊基醚 (3/1, 5mL), 用己烷/醚 (3/1) 洗涤。向得到的水层中加入硫酸氢钾 (0.79g)、乙酸乙酯、饱和硫酸氢钾水溶液 (1mL), 用乙酸乙酯萃取。将得到的有机层用饱和食盐水/水 (1/1) 洗涤, 然后用无水硫酸钠干燥, 减压下蒸馏除去溶剂, 得到化合物aa153 ((2S)-4-(3,3-二氟氮杂环丁烷-1-基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸 (Fmoc-MeAsn (Aze-3-F2)-OH) (660mg, quant.)。

[4155] LCMS (ESI) $m/z = 445 (M+H)^+$

[4156] 保留时间: 0.72分钟 (分析条件SQDFA05)

[4157] 化合物aa154、((2S)-2-(9H-芴-9-基甲氧基羰基(甲基)氨基)-3-(3-碘苯基)丙酸、Fmoc-MePhe (3-I)-OH) 的合成



[4159] 使用化合物aa154-a ((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-3-(3-碘苯基)丙酸、Fmoc-Phe (3-I)-OH) (相对于1分子氨基酸含有1分子THF, 3.29g, 5.62mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法, 得到化合物aa154-b的粗产物 (3.11g)。

[4160] LCMS (ESI) $m/z = 526 (M+H)^+$

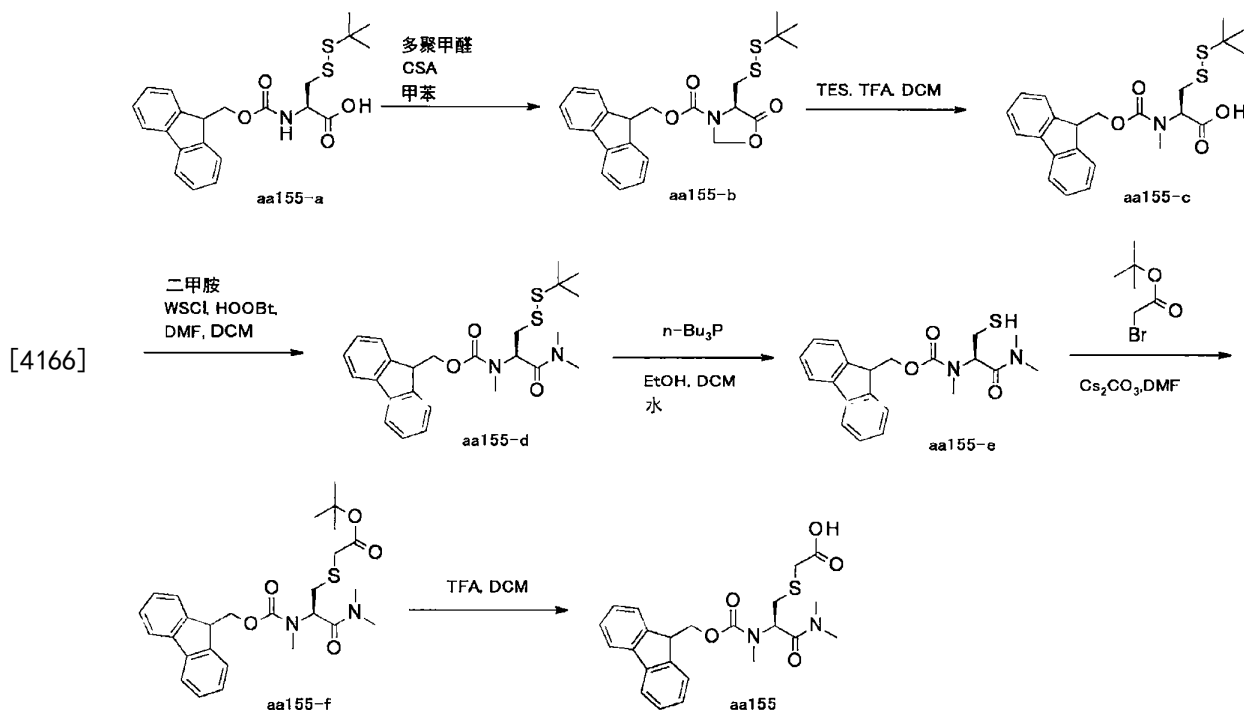
[4161] 保留时间: 1.07分钟 (分析条件SQDFA05)

[4162] 使用所得化合物aa151-b并利用与化合物aa078的合成相同的方法得到化合物aa154 ((2S)-2-(9H-芴-9-基甲氧基羰基(甲基)氨基)-3-(3-碘苯基)丙酸 (Fmoc-MePhe (3-I)-OH) (2.924g, 2个工序99%)。

[4163] LCMS (ESI) $m/z = 528 (M+H)^+$

[4164] 保留时间: 0.98分钟 (分析条件SQDFA05)

[4165] 担载于树脂的氨基酸的合成按照以下路线进行。



[4167] 化合物aa155-c、(2R)-3-(叔丁基二硫烷基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸的合成

[4168] 将(2R)-3-(叔丁基二硫烷基)-2-[9H-芴-9-基甲氧基羰基氨基]丙酸(20.0g, 46.3mmol)、(+)-樟脑磺酸(752.6mg, 3.2mmol, 0.07当量)、多聚甲醛(13.9g, 463.4mmol, 10.0当量)的甲苯(200mL)混合液在氮气气氛、室温下搅拌1小时。将反应液用乙酸乙酯稀释,用碳酸氢钠水溶液洗涤3次,然后用饱和食盐水洗涤。将得到的有机层用无水硫酸钠干燥,在减压下蒸馏除去溶剂,得到化合物aa155-b((4R)-4-[(叔丁基二硫烷基)甲基]-5-氧代-1,3-噁唑烷-3-甲酸9H-芴-9-基甲酯,23g)的粗产物。

[4169] LCMS (ESI) m/z = 466.1 (M+Na) +

[4170] 保留时间:1.560分钟(分析条件SMDmethod_20)

[4171] 向上述得到的化合物aa155-b((4R)-4-[(叔丁基二硫烷基)甲基]-5-氧代-1,3-噁唑烷-3-甲酸9H-芴-9-基甲酯,23g)和三乙基硅烷(60.2g, 518mmol)的二氯甲烷(120mL)混合液中,在氮气气氛、室温下加入三氟乙酸(120mL),搅拌40小时。在减压下从反应液中蒸馏除去溶剂,利用反相柱色谱(C18, 乙腈/水)纯化所得的残渣,由此得到化合物aa155-c((2R)-3-(叔丁基二硫烷基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸(13g, 2个工序63%)。

[4172] LCMS (ESI) m/z = 446.1 (M+H) +

[4173] 保留时间:0.852分钟(分析条件SMDmethod_30)

[4174] 化合物aa155-d、N-[(2R)-3-(叔丁基二硫烷基)-1-(二甲基氨基)-1-氧代丙烷-2-基]-N-甲基氨基甲酸9H-芴-9-基甲酯的合成

[4175] 在氮气气氛、室温下,将化合物aa155-c((2R)-3-(叔丁基二硫烷基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸、13.0g, 29.2mmol)、WSCI·HCl(6.49g, 33.84mmol, 1.2当量)和3,4-二氢-3-羟基-4-氧代-1,2,3-苯并三嗪(HOObt)(5.23g, 32.09mmol, 1.1当量)加入到DMF(26mL)和DCM(90mL)的混合液中,搅拌5分钟。将得到的反应液冷却至0℃,以滴加的

方式加入二甲胺 (2mol/L 的 THF 溶液, 15.60mL, 31.2mmol, 1.07 当量), 在 0℃ 搅拌 1 小时。将反应液用乙酸乙酯稀释, 用盐酸 (1mol/L, 130mL) 洗涤 2 次, 然后用水 (130mL) 洗涤 1 次, 用碳酸氢钠水溶液 (130mL) 洗涤 2 次, 用饱和食盐水 (130mL) 洗涤 1 次。将得到的有机层用无水硫酸钠干燥, 在减压下蒸馏除去溶剂。利用正相色谱 (石油醚/乙酸乙酯) 纯化所得残渣, 得到化合物 aa155-d (N-[(2R)-3-(叔丁基二硫烷基)-1-(二甲基氨基)-1-氧代丙烷-2-基]-N-甲基氨基甲酸 9H-芴-9-基甲酯, 12.1g, 88%)。

[4176] LCMS (ESI) $m/z = 495.2 (M+Na) +$

[4177] 保留时间: 1.546 分钟 (分析条件 SMDmethod_20)

[4178] 化合物 aa155-e、N-[(2R)-1-(二甲基氨基)-1-氧代-3-硫烷基丙烷-2-基]-N-甲基氨基甲酸 9H-芴-9-基甲酯的合成

[4179] 在氮气气氛、室温下, 向化合物 aa155-d (N-[(2R)-3-(叔丁基二硫烷基)-1-(二甲基氨基)-1-氧代丙烷-2-基]-N-甲基氨基甲酸 9H-芴-9-基甲酯, 11.7g, 24.7mmol)、乙醇 (100mL)、DCM (150mL) 和水 (25mL) 的混合液中以滴加的方式加入三正丁基膦 (6.0g, 29.7mmol, 1.2 当量), 室温下搅拌 3 小时。将反应液用二氯甲烷 (DCM) 萃取, 用饱和食盐水洗涤所得有机层, 用无水硫酸钠干燥, 然后在减压蒸馏除去溶剂。利用正相色谱 (石油醚/乙酸乙酯) 纯化所得残渣, 并利用反相柱色谱 (C18, 乙腈/水) 纯化所得混合物, 由此得到化合物 aa155-e (N-[(2R)-1-(二甲基氨基)-1-氧代-3-硫烷基丙烷-2-基]-N-甲基氨基甲酸 9H-芴-9-基甲酯, 3.03g, 32%)。

[4180] LCMS (ESI) $m/z = 407.2 (M+Na) +$

[4181] 保留时间: 1.326 分钟 (分析条件 SMDmethod_20)

[4182] 化合物 aa155、2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸的合成

[4183] 将化合物 aa155-e (N-[(2R)-1-(二甲基氨基)-1-氧代-3-硫烷基丙烷-2-基]-N-甲基氨基甲酸 9H-芴-9-基甲酯, 2.80g, 7.29mmol) 和溴代乙酸叔丁酯 (2.10g, 10.77mmol, 1.5 当量) 的 DMF (40mL) 混合液在室温下搅拌 5 分钟, 向其中加入碳酸铯 (2.80g, 8.59mmol, 1.2 当量), 搅拌 1 小时。将反应液用乙酸乙酯稀释, 用水洗涤。将得到的有机层用无水硫酸钠干燥, 在减压下蒸馏除去溶剂, 得到化合物 aa155-f (2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸叔丁酯, 3.1g) 的粗产物。所得的粗产物不经过进一步纯化地用于下一步反应。

[4184] LCMS (ESI) $m/z = 499.3 (M+H) +$

[4185] 保留时间: 1.467 分钟 (分析条件 SMDmethod_20)

[4186] 将上述得到的化合物 aa155-f (2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸叔丁酯, 3.1g) 溶解于三氟乙酸 (TFA) (30mL) 和二氯甲烷 (DCM) (30mL) 的混合液中, 在氮气气氛、室温下搅拌 2 小时。在减压下从反应液中蒸馏除去溶剂, 利用反相柱色谱 (C18, 乙腈/水) 纯化所得残渣, 利用反相高效柱色谱 (乙腈/水, 含有 TFA) 进一步纯化得到的混合物, 将所得的洗脱液用 DCM 萃取。依次用水、盐酸 (1mol/L) 洗涤得到的有机层, 在减压下蒸馏除去溶剂, 得到化合物 aa155 (2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸, 1.79g, 2 个工序 55%)。

[4187] LCMS (ESI) $m/z = 443.2$ (M+H) +

[4188] 保留时间:1.383分钟(分析条件SMDmethod_31)

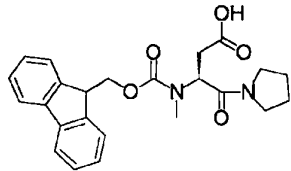
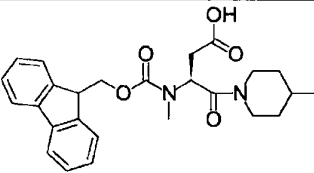
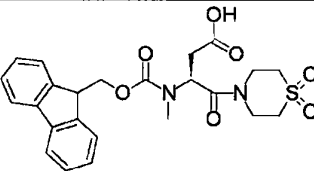
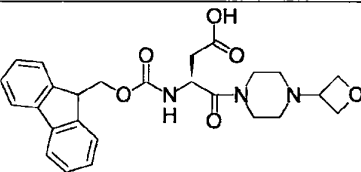
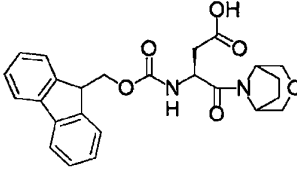
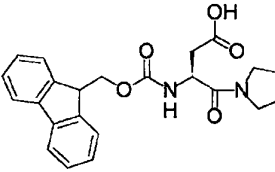
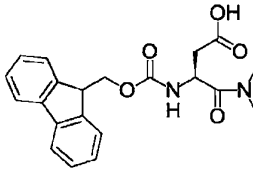
[4189] 1-2. 在利用自动合成仪的肽固相合成中使用的、担载有氨基酸的树脂的合成

[4190] 表6中记载的氨基酸是按照以下所示的方法合成的,并且其担载于树脂而用于利用肽合成仪的肽合成中。表7中记载的氨基酸购自商业供应商,并且其担载于树脂而用于利用肽合成仪的肽合成中。Fmoc氨基酸向树脂的担载反应是根据W02013/100132或W02018/225864中记载的方法进行的。2-氯三苯甲基氯树脂(100-200目,1%DVB)购自渡边化学工业株式会社和Chem-Impex。

[4191] [表6]

化合物编号	简称	结构	名称
aa006	Fmoc-MeAsp-pip		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸
aa007	Fmoc-MeAsp-mor		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸
aa008	Fmoc-MeAsp-pyrro(3-Me2)		(3S)-4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸
[4192] aa009	Fmoc-MeAsp-piz(oxe)		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸
aa010	Fmoc-MeAsp-mor(26-bicyc)		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氧杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸
aa011	Fmoc-MeAsp-NMe2		(3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸
aa012	Fmoc-MeAsp-aze		(3S)-4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸

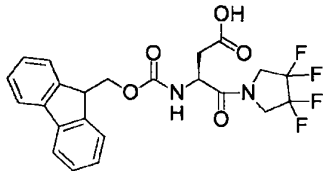
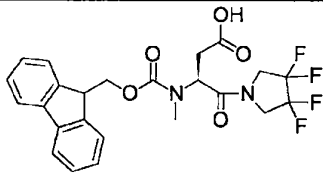
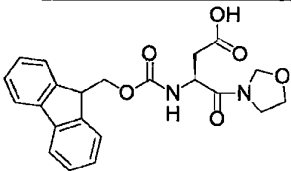
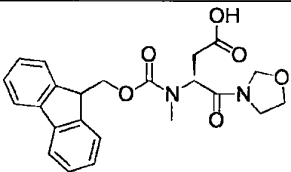
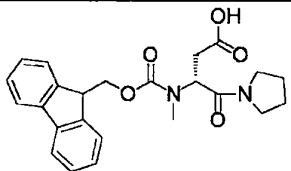
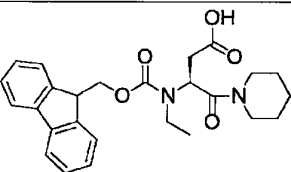
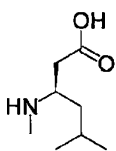
[4193]

aa013	Fmoc-MeAsp-pyrro		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸
aa014	Fmoc-MeAsp-pip(4-Me)		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基哌啶-1-基)-4-氧代丁酸
aa015	Fmoc-MeAsp-mor(SO2)		(3S)-4-(1,1-二氧代-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸
aa016	Fmoc-Asp-piz(oxe)		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸
aa017	Fmoc-Asp-mor(26-bicyc)		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸
aa018	Fmoc-Asp-pyrro		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸
aa019	Fmoc-Asp-NMe2		(3S)-4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸

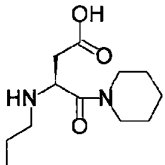
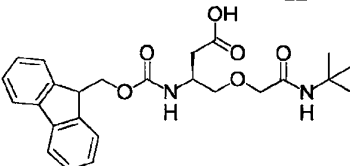
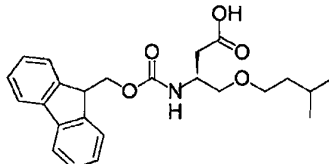
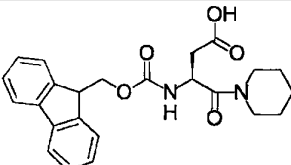
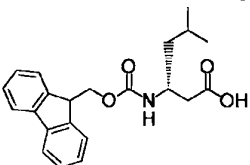
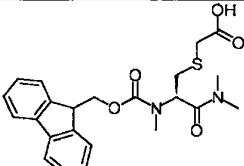
[4194]

aa020	Fmoc-Asp-pip-tBu		(3S)-4-(4-(叔丁基哌啶-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸
aa021	Fmoc-Asp-mor(SO ₂)		(3S)-4-(1,1-二氧代-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸
aa022	Fmoc-Asp-mor		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉-4-基-4-氧代丁酸
aa023	Fmoc-Asp-pip(4-Me)		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸
aa024	Fmoc-Asp-pyrro(3-Me ₂)		(3S)-4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸
aa025	Fmoc-MeAsp-pip(345-F ₆)		(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸
aa026	Fmoc-Asp-pip(345-F ₆)		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸

[4195]

aa027	Fmoc-Asp-pyrro(34-F4)		(3S)-3-[(9H-芴-9-基甲氧基羰基氨基)-4-氟代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸
aa028	Fmoc-MeAsp-pyrro(34-F4)		(3S)-3-[(9H-芴-9-基甲氧基羰基(甲基)氨基)-4-氟代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸
aa029	Fmoc-Asp-oxz		(3S)-3-[(9H-芴-9-基甲氧基羰基氨基)-4-(1,3-噁唑烷-3-基)-4-氟代丁酸
aa030	Fmoc-MeAsp-oxz		(3S)-3-[(9H-芴-9-基甲氧基羰基(甲基)氨基)-4-(1,3-噁唑烷-3-基)-4-氟代丁酸
aa031	Fmoc-D-MeAsp-pyrro		(3R)-3-[(9H-芴-9-基甲氧基羰基(甲基)氨基)-4-氟代-4-吡咯烷-1-基丁酸
aa032	Fmoc-EtAsp-pip		(3S)-3-[(乙基(9H-芴-9-基甲氧基羰基)氨基)-4-氟代-4-哌啶-1-基丁酸
aa051	D-MeLeu-(C#CH2)-OH		(3R)-5-甲基-3-(甲氨基)己酸

[4196]

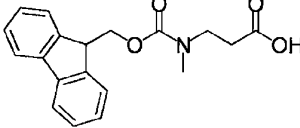
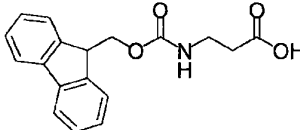
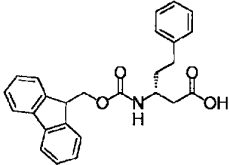
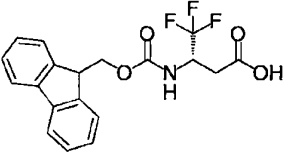
aa052	nPrAsp-pip		(3S)-4-氯代-4-哌啶-1-基-3-(丙基氨基)丁酸
aa107	Fmoc-D-Ser(NtBu-Aca)-(C#CH2)-OH		(3S)-4-[2-(叔丁基氨基)-2-氯代乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸
aa108	Fmoc-D-Ser(iPen)-(C#CH2)-OH		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-甲基丁氧基)丁酸
aa149	Fmoc-Asp-pip		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氯代-4-哌啶-1-基丁酸
aa141	Fmoc-D-Leu-(C#CH2)-OH		(3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸
aa155	Fmoc-MeCys(AcOH)-NMe2		2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氯代丙基]硫烷基乙酸

[4197] [表7]

[4198]

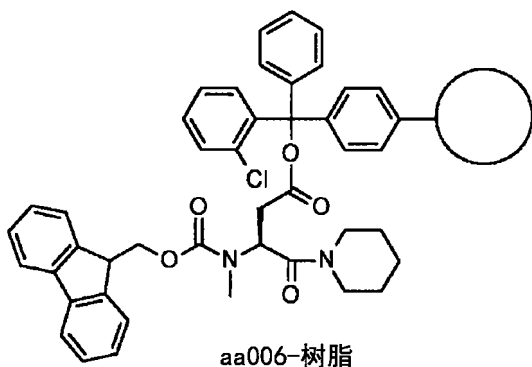
化合物编号	简称	结构	名称	CAS编号
aa135	Fmoc-2-ACHxC-OH		(1R, 2R)-2-(9H-芴-9-基甲氧基羰基氨基)环己烷-1-甲酸	389057-34-5
aa136	Fmoc-2-ACPnC-OH		(1R, 2R)-2-(9H-芴-9-基甲氧基羰基氨基)环戊烷-1-甲酸	359586-69-9
aa137	Fmoc-D-(Propargyl)Gly-(C#CH2)-OH		(3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-炔酸	332064-94-5
aa138	Fmoc-D-3-Abu-OH		(3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸	201864-71-3
aa139	Fmoc-D-3-MeAbu-OH		(3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸	1460306-60-8
aa140	Fmoc-D-Gly(Allyl)-(C#CH2)-OH		(3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-烯酸	269726-95-6
aa143	Fmoc-D-Pic(2)-(C#CH2)-OH		(R)-2-[1-(9H-芴-9-基甲氧基羰基)吡啶-2-基]乙酸	193693-63-9
aa144	Fmoc-D-Pro-(C#CH2)-OH		2-[(2R)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-基]乙酸	193693-61-7

[4199]

aa145	Fmoc-bMeAla-OH		3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸	172965-84-3
aa146	Fmoc-bAla-OH		3-(9H-芴-9-基甲氧基羰基氨基)丙酸	35737-10-1
aa147	Fmoc-D-Hph-(C#CH ₂)-OH		(3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-苯基戊酸	269398-87-0
aa148	Fmoc-3-CF ₃ -bAla-OH		(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4, 4, 4-三氟丁酸	1310680-31-9

[4200] 化合物aa006-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)的合成

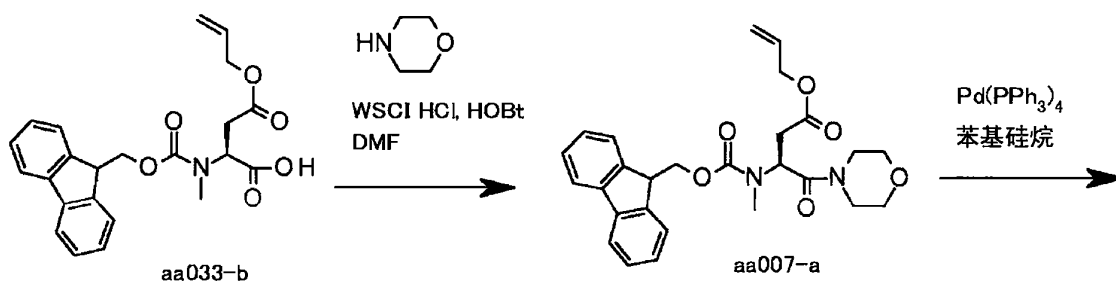
[4201]



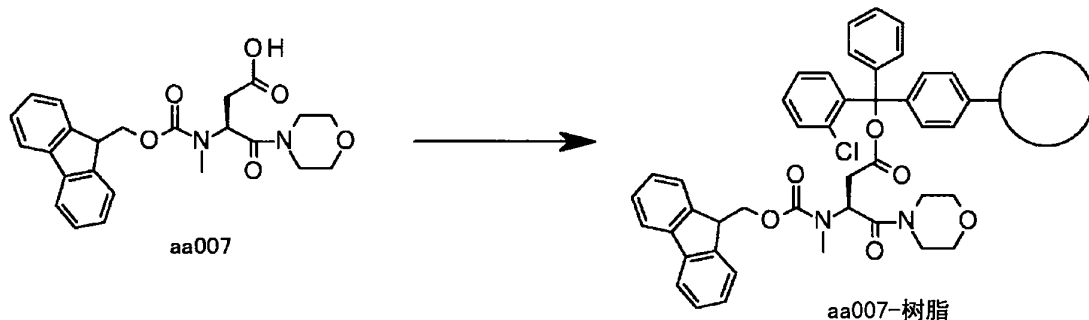
[4202] 对于化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip),根据W02018/225864中记载的方法合成。

[4203] 另外,在本说明书中,在树脂与化合物键合的情况下,有时将树脂部位表示为“○”。为了明确树脂部位的反应点,有时表示出与“○”相连的反应部位的化学结构。以上结构表示了,在Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip(化合物aa006-树脂)中,树脂上的2-氯三苯甲基通过酯键与MeAsp的侧链羧酸键合的状态。

[4204] 化合物aa007-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-mor)的合成



[4205]



[4206] 将WSCI·HCl (0.506g, 2.64mmol) 溶解于DMF (4.4mL), 加入HOBT (0.356g, 2.64mmol)、化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸、Fmoc-MeAsp(OA1)-OH) (0.9g, 2.2mmol), 在0℃搅拌10分钟。向反应液中滴加吗啉 (0.23mL, 2.64mmol), 在0℃搅拌1小时。向反应液中加入乙酸乙酯 (9mL), 用0.5N盐酸水溶液、水、饱和碳酸氢钠水溶液/水 (1/1)、饱和食盐水/水 (1/1) 洗涤, 用无水硫酸钠干燥。然后在减压下蒸馏除去溶剂, 得到化合物aa007-a的粗产物 (522mg, 50%)。

[4207] LCMS (ESI) $m/z = 479$ (M+H) +

[4208] 保留时间: 0.87分钟 (分析条件SQDFA05)

[4209] 向化合物aa007-a (446mg, 0.932mmol) 的DCM (1.86mL) 溶液中加入四(三苯基膦)钯 (0) (10.8mg, 0.0093mmol), 进一步滴加苯基硅烷 (0.081mL, 0.653mmol), 在室温下搅拌30分钟。将反应液用TBME稀释, 加入5%碳酸氢钠水溶液。除去有机层, 向水层中加入磷酸 (548mg), 用TBME萃取。将有机层用饱和食盐水洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa007 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸、Fmoc-MeAsp-mor) (321mg, 79%)。

[4210] LCMS (ESI) $m/z = 439$ (M+H) +

[4211] 保留时间: 0.69分钟 (分析条件SQDFA05)

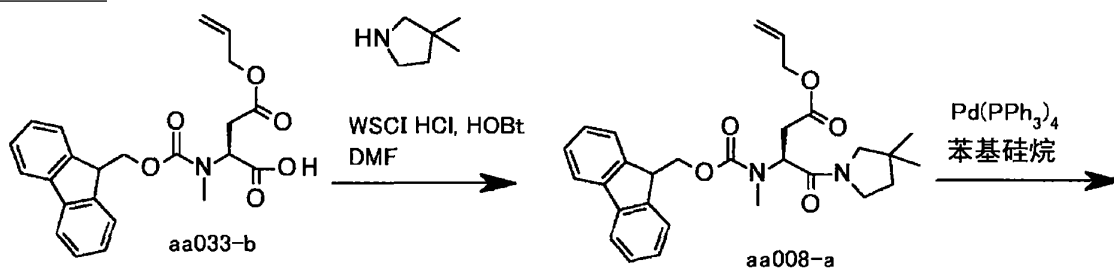
[4212] Fmoc氨基酸向树脂的担载反应是根据W02013/100132或W02018/225864中记载的方法进行的。向带有过滤器的反应容器中加入2-氯三苯甲基氯树脂 (1.60mmol/g, 100-200目, 1%DVB, 1g, 1.6mmol) 和脱水二氯甲烷 (13.3mL), 在室温下振荡10分钟。通过施加氮气压除去二氯甲烷后, 向反应容器中加入混合液, 振荡30分钟, 该混合液是向化合物aa007 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸、Fmoc-MeAsp-mor) (317mg, 0.723mmol) 的脱水二氯甲烷 (13.3mL) 溶液中加入脱水甲醇 (0.259mL, 6.4mmol) 和二异丙基乙胺 (DIPEA) (0.671mL, 3.84mmol) 的混合液。通过施加氮气压除去反应液后, 向反应容器中添加在脱水二氯甲烷 (13.3mL) 中加入有脱水甲醇 (1.99mL) 和二异丙基乙胺 (DIPEA) (0.671mL) 的混合液, 振荡1小时30分钟。通过施加氮气压除去反应液后, 将

二氯甲烷添加到反应容器中,振荡5分钟,然后通过施加氮气压除去反应液。将该用二氯甲烷洗涤树脂的操作再重复2次,将得到的树脂在减压下干燥过夜,得到化合物aa007-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(0-Trt(2-Cl)resin)-mor)(1.22g,0.37mmol/g)。

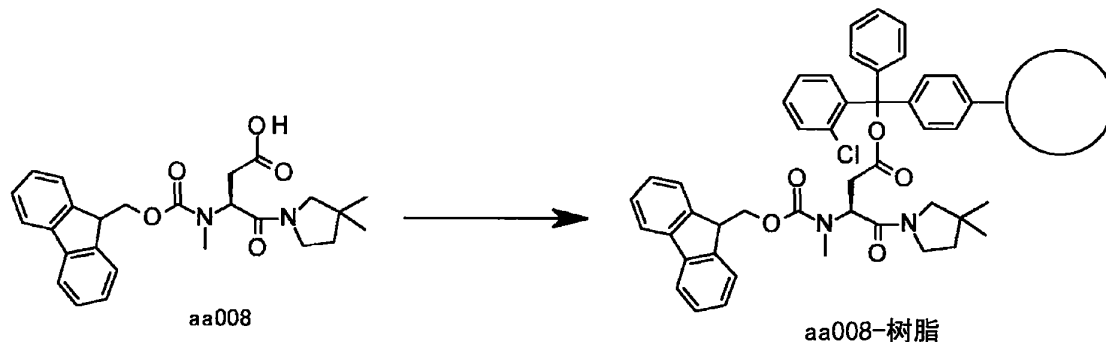
[4213] 树脂上的氨基酸的担载量是按照以下方法算出的。将得到的化合物aa007-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(0-Trt(2-Cl)resin)-mor)(10.4mg)放入反应容器中,加入DMF(2mL),在室温下振荡1小时。然后加入DBU(40 μ L)在30℃下振荡30分钟。然后将DMF(8mL)添加到反应混合液中,将1mL该溶液用DMF(11.5mL)进行稀释。测定得到的稀释溶液的吸光度(294nm)(使用岛津、UV-1600PC(样品池长:1.0cm)进行测定),算出化合物aa007-树脂的担载量为0.370mmol/g。

[4214] 需要说明的是,以同样方式合成的担载量不同的另一批也用于肽合成。

[4215] 化合物aa008-树脂、(3S)-4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(0-Trt(2-Cl)resin)-pyrro(3-Me2))的合成



[4216]



[4217] 使用化合物aa033-b((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸)(0.5g,1.221mmol)作为起始原料,利用与化合物aa007-a的合成相同的方法,代替吗啉而使用3,3-二甲基吡咯烷,由此得到化合物aa008-a(359.6mg,60%)。

[4218] LCMS(ESI) m/z = 491 (M+H) +

[4219] 保留时间:0.98分钟(分析条件SQDFA05)

[4220] 使用所得化合物aa008-a(338mg,0.689mmol),利用与化合物aa007的合成相同的方法得到化合物aa008((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-pyrro(3-Me2))(226.2mg,73%)。

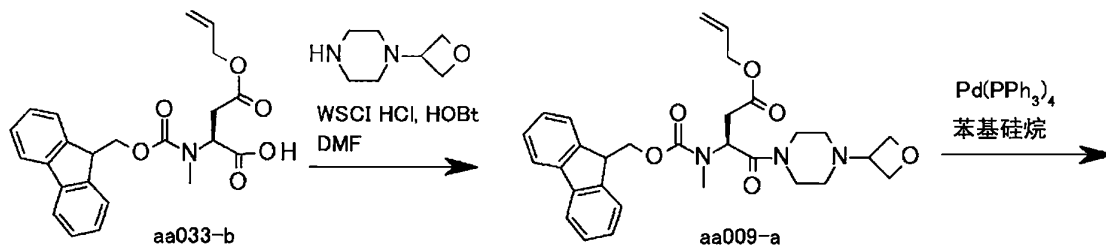
[4221] LCMS(ESI) m/z = 451 (M+H) +

[4222] 保留时间:0.84分钟(分析条件SQDFA05)

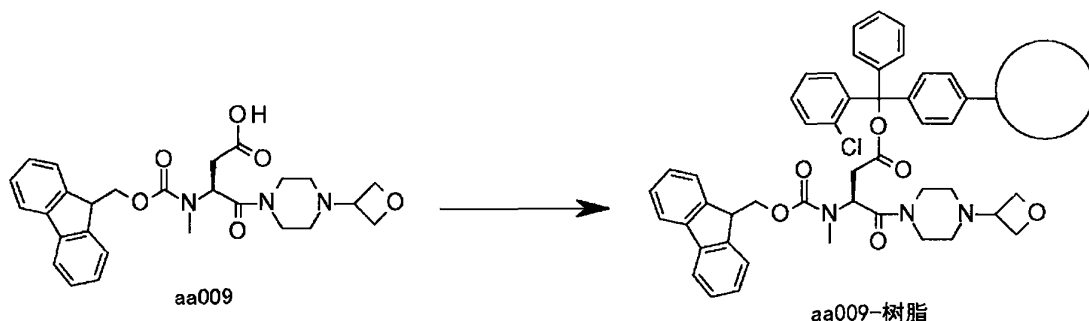
[4223] 使用所得化合物aa008((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基

基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-pyrro(3-Me₂) (226mg, 0.502mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa008-树脂((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pyrro(3-Me₂) (731mg, 担载量0.455mmol/g)。

[4224] 化合物aa009-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-piz(oxe))的合成



[4225]



[4226] 使用化合物aa033-b((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (0.4g, 0.977mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用1-(氧杂环丁烷-3-基)哌嗪, 由此得到化合物aa009-a (466mg, 89%)。

[4227] LCMS (ESI) $m/z = 534$ (M+H) +

[4228] 保留时间: 0.64分钟 (分析条件SQDFA05)

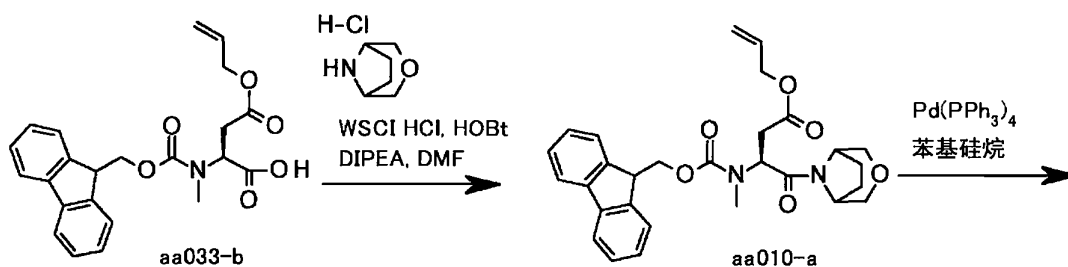
[4229] 对于使用所得化合物aa009-a (466mg, 0.873mmol) 并利用与化合物aa007的合成相同的方法得到的粗产物, 利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 进行纯化, 得到化合物aa009((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸、Fmoc-MeAsp-piz(oxe)) (385mg, 89%)。

[4230] LCMS (ESI) $m/z = 494$ (M+H) +

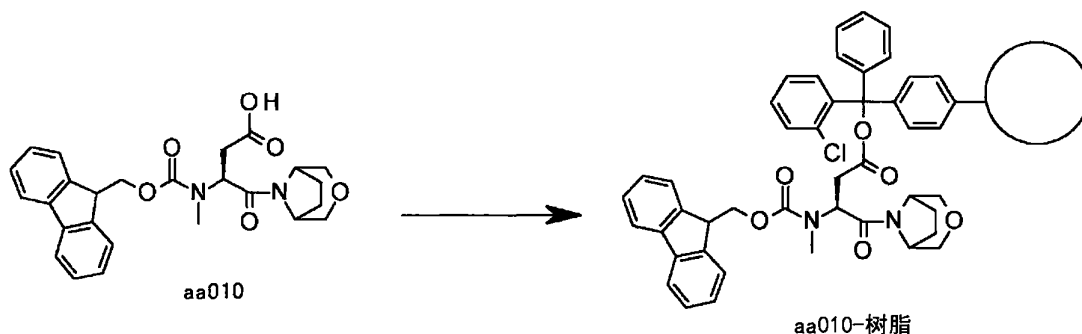
[4231] 保留时间: 0.50分钟 (分析条件SQDFA05)

[4232] 使用所得化合物aa009((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸、Fmoc-MeAsp-piz(oxe)) (385mg, 0.78mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa009-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-piz(oxe)) (1.49g, 担载量0.266mmol/g)。

[4233] 化合物aa010-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-Mor(26-bicyc))的合成



[4234]



[4235] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (5g, 12.21mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用(1R, 5S)-3-氧杂-8-氮杂双环[3.2.1]辛烷盐酸盐和相对于胺为1当量的DIPEA, 由此得到化合物aa010-a (5.8g, 94%)。

[4236] LCMS (ESI) $m/z = 505$ (M+H) +

[4237] 保留时间: 0.87分钟 (分析条件SQDFA05)

[4238] 使用所得化合物aa010-a (5.8g, 11.49mmol), 利用与化合物aa007的合成相同的方法得到aa010 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸、Fmoc-MeAsp-Mor (26-bicyc)) (5.1g, 96%)。

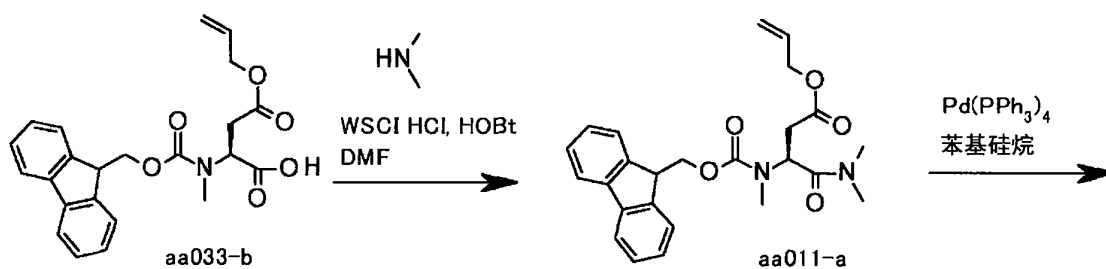
[4239] LCMS (ESI) $m/z = 465$ (M+H) +

[4240] 保留时间: 0.69分钟 (分析条件SQDFA05)

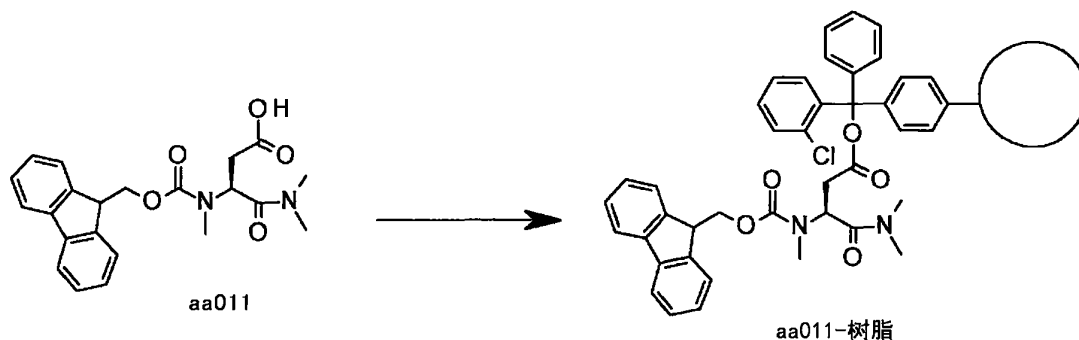
[4241] 使用所得化合物aa010 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸、Fmoc-MeAsp-Mor (26-bicyc)) (5.1g, 10.98mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa010-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin)-Mor (26-bicyc)) (18.3g, 担载量0.419mmol/g)。

[4242] 需要说明的是, 以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4243] 化合物aa011-树脂、(3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-MeAsp (O-Trt (2-Cl) resin)-NMe2) 的合成



[4244]



[4245] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (1.5g, 3.66mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用二甲胺的THF溶液(2mol/L), 由此得到化合物aa011-a (1.47g, 92%)。

[4246] LCMS (ESI) $m/z = 437$ (M+H) +

[4247] 保留时间: 0.88分钟 (分析条件SQDFA05)

[4248] 使用所得化合物aa011-a (1.4g, 3.21mmol), 利用与化合物aa007的合成相同的方法得到aa011 ((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸 (Fmoc-MeAsp-NMe2) (1.30g, quant.)。

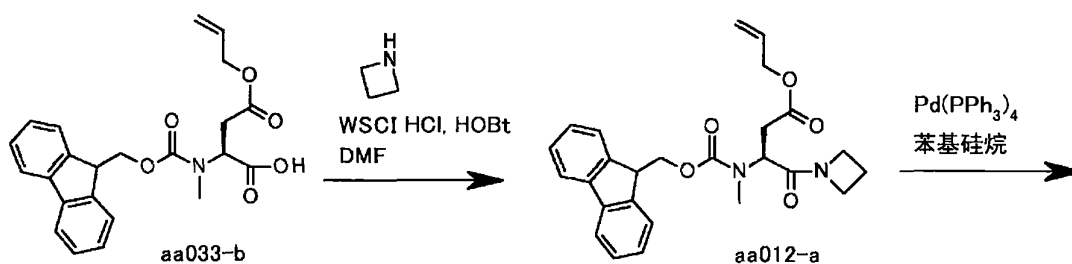
[4249] LCMS (ESI) $m/z = 397$ (M+H) +

[4250] 保留时间: 0.70分钟 (分析条件SQDFA05)

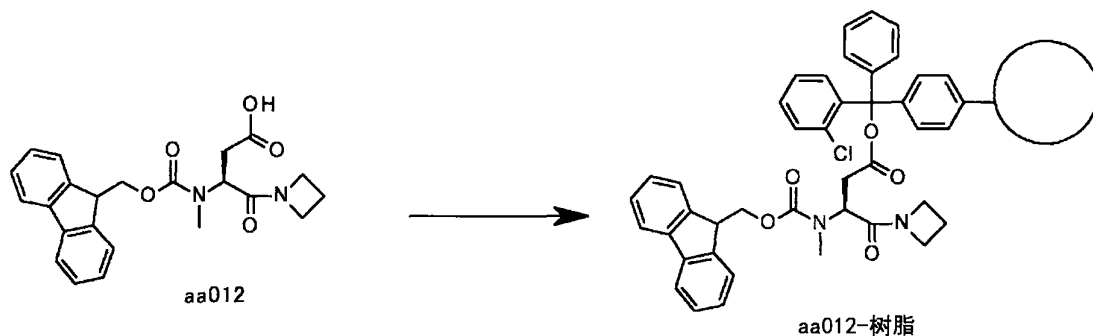
[4251] 使用所得化合物aa011 ((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-NMe2) (1.21g, 3.05mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa011-树脂 ((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -NMe2) (4.45g, 担载量0.318mmol/g)。

[4252] 需要说明的是, 以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4253] 化合物aa012-树脂、(3S)-4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-MeAsp (O-Trt (2-Cl) resin) -aze) 的合成



[4254]



[4255] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (1.5g, 3.66mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用氮杂环丁烷, 由此得到化合物aa012-a (1.41g, 86%)。

[4256] LCMS (ESI) $m/z = 449$ (M+H) +

[4257] 保留时间: 0.86分钟 (分析条件SQDFA05)

[4258] 使用所得化合物aa012-a (1.4g, 3.12mmol), 利用与化合物aa007的合成相同的方法得到aa012 ((3S)-4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-aze) (1.14g, 89%)。

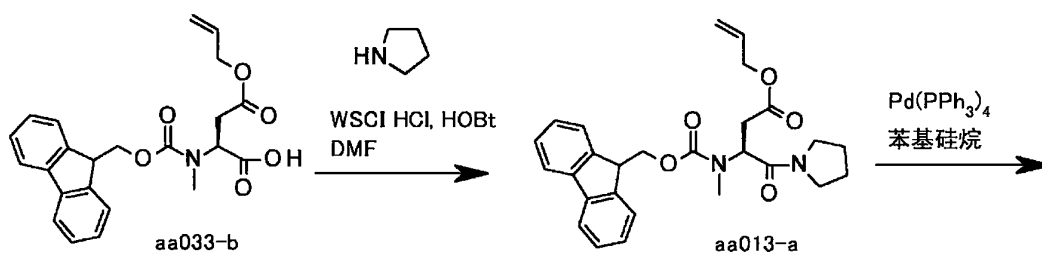
[4259] LCMS (ESI) $m/z = 409$ (M+H) +

[4260] 保留时间: 0.69分钟 (分析条件SQDFA05)

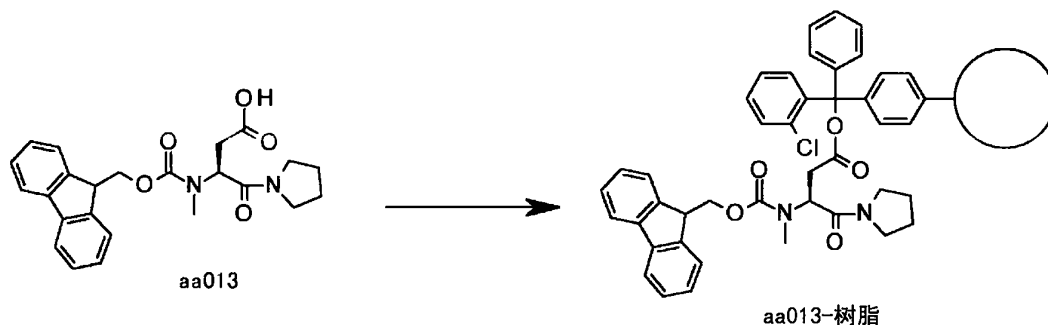
[4261] 使用所得化合物aa012 ((3S)-4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-aze) (1.05g, 2.57mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa012-树脂 ((3S)-4-(氮杂环丁烷-1-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin)-aze) (3.64g, 担载量0.2984mmol/g)。

[4262] 需要说明的是, 以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4263] 化合物aa013-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂 (Fmoc-MeAsp (O-Trt (2-Cl) resin)-pyrro) 的合成



[4264]



[4265] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (30g, 73.3mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用吡咯烷, 由此得到化合物aa013-a (30.7g, 91%)。

[4266] LCMS (ESI) $m/z = 463$ (M+H) +

[4267] 保留时间: 0.88分钟 (分析条件SQDFA05)

[4268] 使用所得化合物aa013-a (30.7g, 66.4mmol), 利用与化合物aa007的合成相同的方法得到aa013 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-MeAsp-pyrro) (26.2g, 93%)。

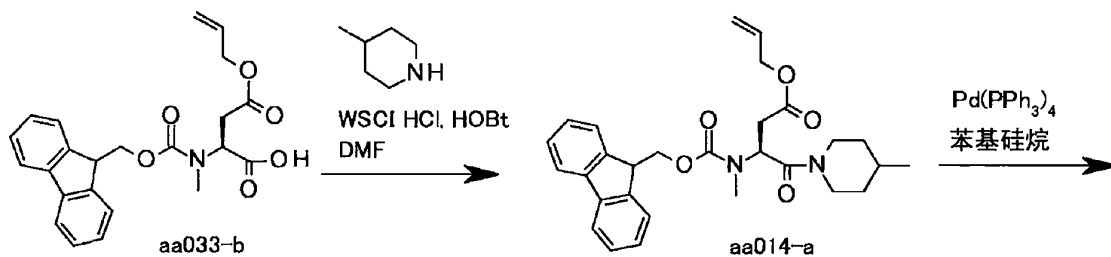
[4269] LCMS (ESI) $m/z = 423$ (M+H) +

[4270] 保留时间: 0.71分钟 (分析条件SQDFA05)

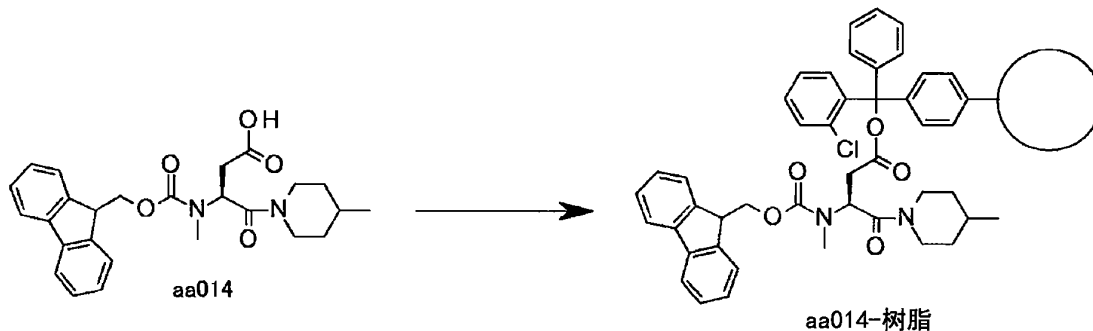
[4271] 使用所得化合物aa013 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-MeAsp-pyrro) (24.6g, 58.2mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa013-树脂 (9H-芴-9-基甲氧基羰基(甲基)氨基)-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -pyrro) (84.1g, 担载量0.5216mmol/g)。

[4272] 需要说明的是, 以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4273] 化合物aa014-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-MeAsp (O-Trt (2-Cl) resin) -pip(4-Me)) 的合成



[4274]



[4275] 使用化合物aa033-b((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸)(0.9g, 2.198mmol)作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用4-甲基哌啶, 由此得到化合物aa014-a的粗产物。利用反相柱色谱(水-乙腈, 含有0.1%甲酸)纯化所得的粗产物, 进一步溶解于20%乙酸乙酯-己烷中, 然后用饱和碳酸氢钠水溶液洗涤2次, 用饱和氯化钠水溶液洗涤1次, 用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂, 得到化合物aa014-a(0.587g, 54%)。

[4276] LCMS (ESI) $m/z = 491$ (M+H) +

[4277] 保留时间:1.02分钟(分析条件SQDFA05)

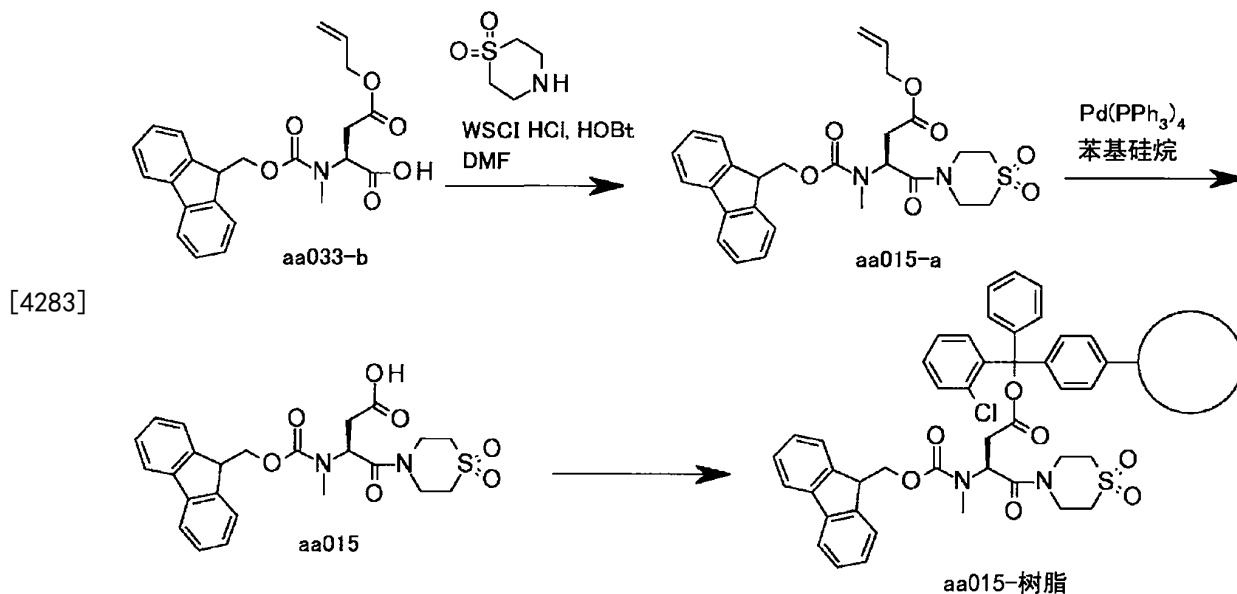
[4278] 使用所得化合物aa014-a (535mg, 1.09mmol), 利用与化合物aa007的合成相同的方法得到aa014 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基哌啶-1-基)-4-氧代丁酸, Fmoc-MeAsp-pip(4-Me)) (376.6mg, 77%)。

[4279] LCMS (ESI) $m/z = 451$ (M+H) +

[4280] 保留时间:0.85分钟(分析条件SQDFA05)

[4281] 使用所得化合物aa014((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基哌啶-1-基)-4-氧代丁酸、Fmoc-MeAsp-pip(4-Me))(364mg,0.808mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa014-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(4-甲基哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip(4-Me))(1.2g,担载量0.403mmol/g)。

[4282] 化合物aa015-树脂、(3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-mor(S02))的合成



[4284] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (0.9g, 2.198mmol) 作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用硫代吗啉-1,1-二氧化物, 由此得到化合物aa015-a (796.2mg, 69%)。

[4285] LCMS (ESI) $m/z = 527 (M+H)^+$

[4286] 保留时间: 0.84分钟 (分析条件SQDFA05)

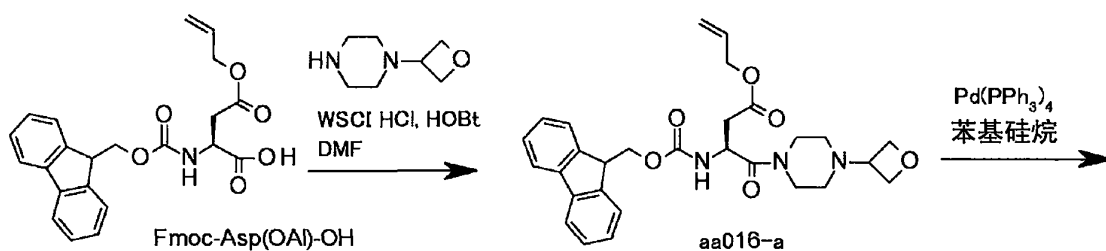
[4287] 使用所得化合物aa015-a (743mg, 1.41mmol), 利用与化合物aa007的合成相同的方法得到aa015 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-mor (S02)) (624.2mg, 91%)。

[4288] LCMS (ESI) $m/z = 487 (M+H)^+$

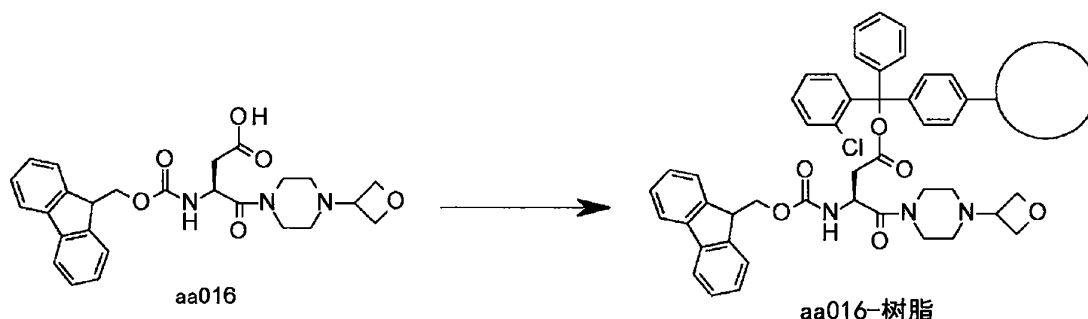
[4289] 保留时间: 0.68分钟 (分析条件SQDFA05)

[4290] 使用所得化合物aa015 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸、Fmoc-MeAsp-mor (S02)) (606.7mg, 1.247mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa015-树脂 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-mor (S02)) (1.85g, 担载量0.424mmol/g)。

[4291] 化合物aa016-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt(2-Cl)resin)-piz(oxe)) 的合成



[4292]



[4293] 使用化合物Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(0.4g,1.012mmol)作为起始原料,利用与化合物aa007-a的合成相同的方法,代替吗啉而使用1-(氧杂环丁烷-3-基)哌嗪,由此得到化合物aa016-a(499mg,95%)。

[4294] LCMS(ESI) $m/z = 520 (M+H)^+$

[4295] 保留时间:0.60分钟(分析条件SQDFA05)

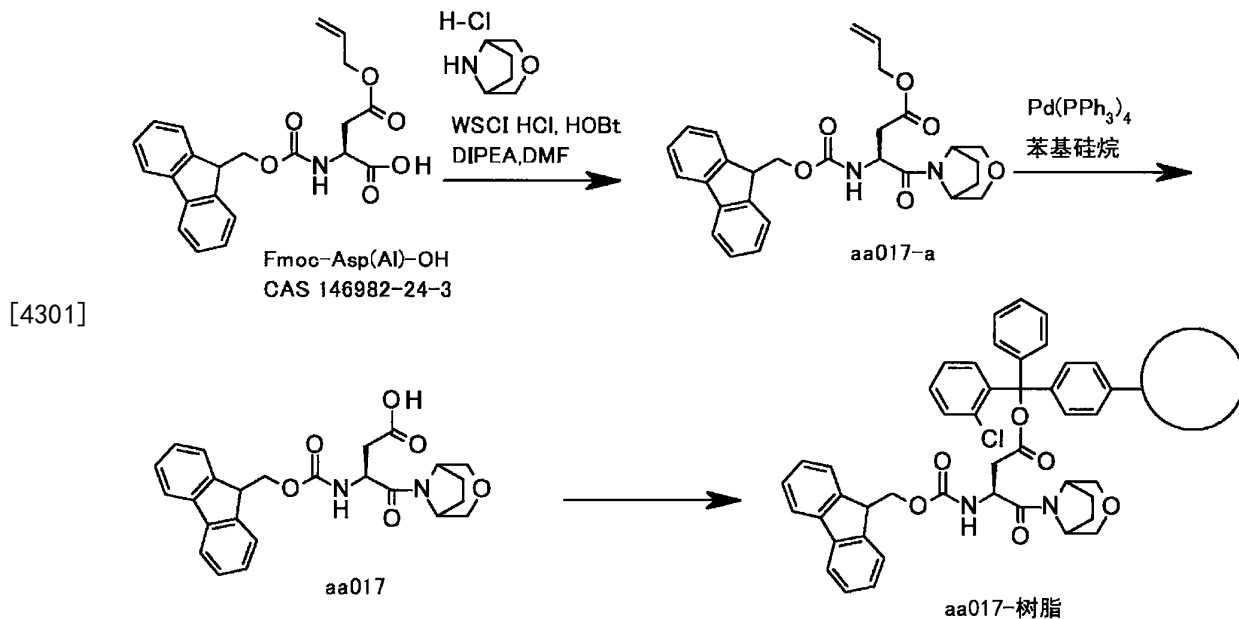
[4296] 使用所得化合物aa016-a(499mg,0.960mmol),利用与化合物aa007的合成相同的方法得到aa016((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸(Fmoc-Asp-piz(oxe))(415mg,90%)。

[4297] LCMS(ESI) $m/z = 480 (M+H)^+$

[4298] 保留时间:0.49分钟(分析条件SQDFA05)

[4299] 使用所得化合物aa016((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸(Fmoc-Asp-piz(oxe))(123mg,0.256mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa016-树脂((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-[4-(氧杂环丁烷-3-基)哌嗪-1-基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-piz(oxe))(463mg,担载量0.329mmol/g)。

[4300] 化合物aa017-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl)resin)-Mor(26-bicyc))的合成



[4302] 使用化合物Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(0.6g,1.517mmol)作为起始原料,利用与化合物aa007-a的合成相同的方法,代替吗啉而使用(1R,5S)-3-氧杂-8-氮杂双环[3.2.1]辛烷盐酸盐和相对于胺为1当量的DIPEA,由此得到化合物aa017-a(706mg,95%)。

[4303] LCMS(ESI) $m/z=491$ (M+H) +

[4304] 保留时间:0.82分钟(分析条件SQDFA05)

[4305] 使用所得化合物aa017-a(705mg,1.437mmol),利用与化合物aa007的合成相同的方法得到化合物aa017((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸(Fmoc-Asp-Mor(26-bicyc))) (564.5mg,87%)。

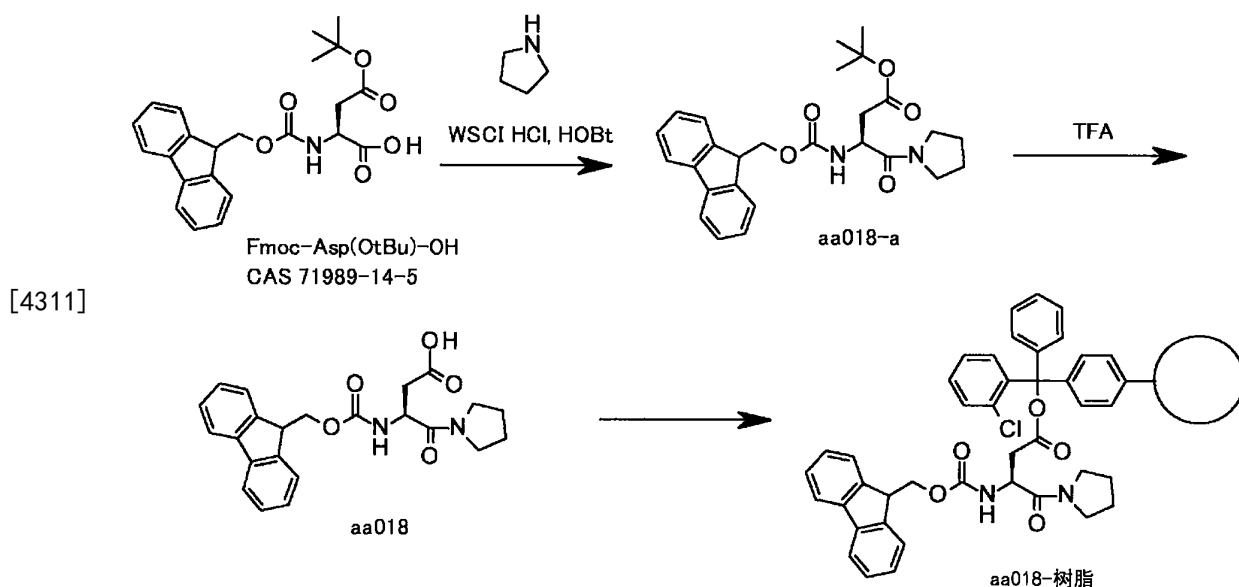
[4306] LCMS(ESI) $m/z=451$ (M+H) +

[4307] 保留时间:0.66分钟(分析条件SQDFA05)

[4308] 使用所得化合物aa017((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸(Fmoc-Asp-Mor(26-bicyc))) (115mg,0.256mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa017-树脂((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-Mor(26-bicyc)) (464mg,负载量0.340mmol/g)。

[4309] 需要说明的是,以同样方式合成的负载量不同的另一批也用于本实施例的肽合成。

[4310] 化合物aa018-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl)resin)-pyrro)的合成



[4312] 在氮气气氛、0℃下,向DMF (600mL) 中依次加入WSCI·HCl (67.1g, 350mmol)、HOBT (43.4g, 321mmol)、Fmoc-Asp(OtBu)-OH (120g, 292mmol), 在0℃下搅拌1小时。向该反应液中缓慢加入吡咯烷 (26.3mL, 321mmol), 在0℃下搅拌1.5小时。在0℃下向反应液中加入乙酸乙酯 (10v) 和0.5mol/L盐酸水溶液 (2v), 分离有机层。将所得有机层依次用0.5mol/L盐酸水溶液、水、饱和碳酸氢钠水溶液/水 (1/1)、饱和食盐水/水 (1/1) 洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa018-a的粗产物 (137.1g, quant.)。

[4313] LCMS (ESI) $m/z = 465 (M+H)^+$

[4314] 保留时间: 1.05分钟 (分析条件SQDAA05)

[4315] 在冰冷却下, 向化合物aa018-a (137g, 395mmol) 的DCM (137mL) 溶液中缓慢加入TFA (271mL), 以使内部温度不超过10℃。在室温搅拌1小时后, 分四次加入二异丙醚 (3.4L), 过滤收集析出的固体, 干燥, 得到化合物aa018 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-Asp-pyrro) (108.4g, 90%)。

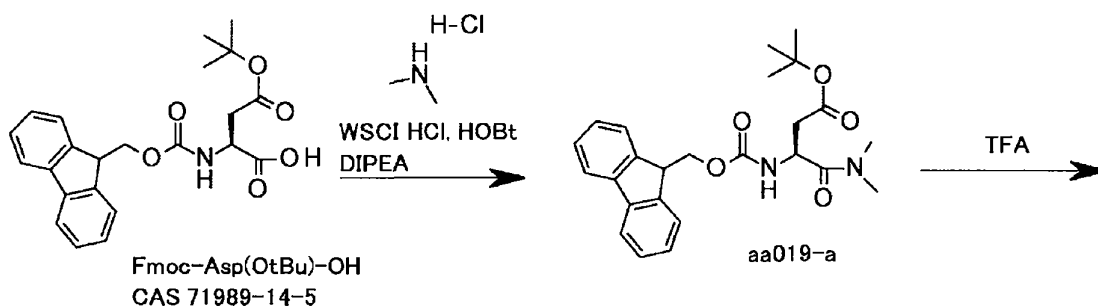
[4316] LCMS (ESI) $m/z = 409 (M+H)^+$

[4317] 保留时间: 0.83分钟 (分析条件SQDAA05)

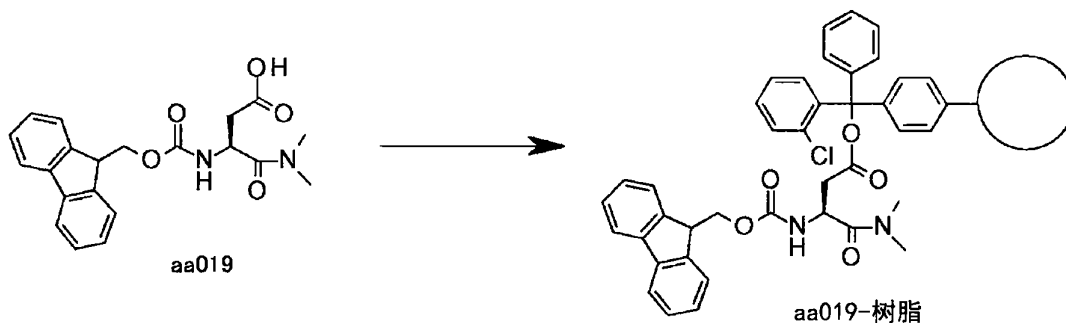
[4318] 使用所得化合物aa018 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-Asp-pyrro) (15.91g, 30mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa017-树脂 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt (2-Cl) resin)-pyrro) (59.79g, 负载量 0.464mmol/g)。

[4319] 需要说明的是, 以同样方式合成的负载量不同的另一批也用于本实施例的肽合成。

[4320] 化合物aa019-树脂、(3S)-4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt (2-Cl) resin)-NMe2) 的合成



[4321]



[4322] 在氮气气氛、0℃下,向Fmoc-Asp(OtBu)-OH(N-[(9H-芴-9-基甲氧基)羰基]-L-天冬氨酸4-叔丁酯、CAS号71989-14-5)(5g,12.15mmol)和HOBt一水合物(2.047g,13.37mmol)的DMF(24.3mL)溶液中依次加入二甲胺盐酸盐(0.991g,12.15mmol)、WSCl·HCl(2.8g,14.58mmol)、DIPEA(2.117mL,12.15mmol),在0℃搅拌50分钟。向反应液中加入乙酸乙酯/己烷(1/1,100mL)和饱和食盐水/水(1/1,50mL),分离有机层。将所得有机层依次用饱和氯化铵水溶液、水、饱和食盐水洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂。利用硅胶柱色谱(己烷/乙酸乙酯)纯化所得残渣,得到化合物aa019-a(5.02g,94%)。

[4323] LCMS(ESI) $m/z = 439 (M+H)^+$

[4324] 保留时间:1.03分钟(分析条件SQDAA05)

[4325] 向化合物aa019-a(5g,11.4mmol)中加入甲苯(150mL)并在减压下蒸馏除去溶剂,将该操作进行了3次。将残渣溶解于DCM(5.06mL)中,在氮气气氛、0℃下以滴加的方式加入TFA(10.13mL,137mmol),在室温下搅拌1小时。将反应液冷却至0℃,加入乙醚(10.1mL),以滴加的方式加入8mol/L氢氧化钠水溶液(17.1mL)。进一步加入饱和磷酸二氢钠水溶液(7.6mL)、水(5mL)。将该溶液用乙酸乙酯萃取,将得到的有机层用饱和磷酸二氢钠水溶液/水(1/1)洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到化合物aa019((3S)-4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,Fmoc-Asp-NMe₂)(2.63g,60%)。未进行进一步纯化地用于下一步反应。

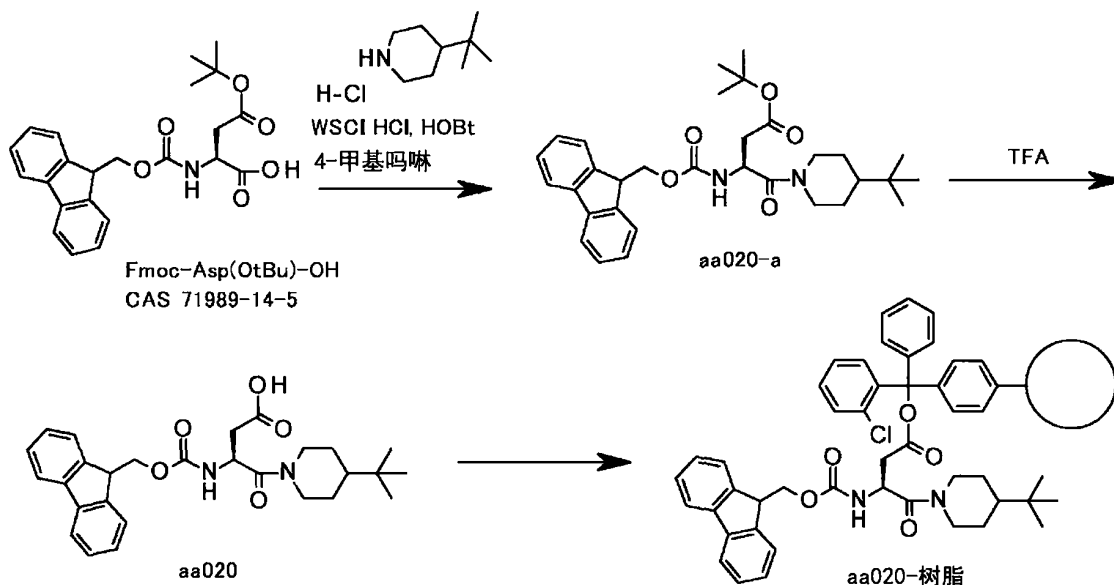
[4326] LCMS(ESI) $m/z = 383 (M+H)^+$

[4327] 保留时间:0.80分钟(分析条件SQD化合物AA05)

[4328] 使用得到的化合物aa019((3S)-4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸,Fmoc-Asp-NMe₂)(2.367g,6.19mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa019-树脂((3S)-4-(二甲基氨基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂,Fmoc-Asp(O-Trt(2-Cl)resin)-NMe₂)(9.07g,担载量0.399mmol/g)。

[4329] 需要说明的是,以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4330] 化合物aa020-树脂、(3S)-4-(4-叔丁基哌啶-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(0-Trt(2-Cl)resin)-pip-tBu)的合成



[4332] 使用化合物Fmoc-Asp(OtBu)-OH(N-[(9H-芴-9-基甲氧基) 羰基]-L-天冬氨酸4-叔丁酯、CAS号71989-14-5) (10g, 24.3mmol) 作为起始原料, 利用与化合物aa019-a的合成相同的方法, 代替二甲胺盐酸盐而使用4-(叔丁基)哌啶盐酸盐, 并且代替DIPEA而使用相对于胺为1.0当量的4-甲基吗啉, 由此得到化合物aa020-a (11.5g, 93%)。

[4333] LCMS (ESI) $m/z = 535.4$ (M+H) +

[4334] 保留时间: 1.19分钟 (分析条件SQDAA05)

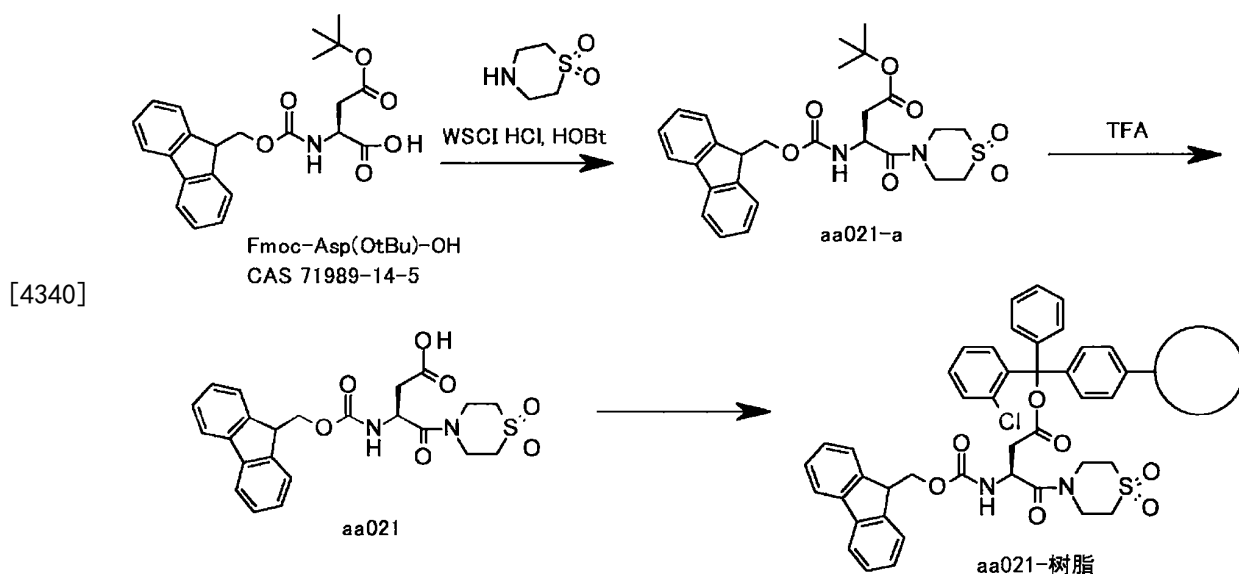
[4335] 向化合物aa020-a (2g, 3.74mmol) 中加入甲苯 (150mL) 并在减压下蒸馏除去溶剂, 将该操作进行3次。将残渣溶解于DCM (1.66mL) 中, 在氮气气氛、0℃下, 以滴加的方式加入TFA (1.66mL, 22.44mmol), 在室温下搅拌4小时。将反应液冷却至0℃并以滴加的方式加入三乙胺 (3.13mL, 22.4mmol)。将该溶液用DCM (30mL) 稀释, 用磷酸二氢钠水溶液 (5%) 洗涤9次。将有机层用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa020 ((3S)-4-(4-叔丁基哌啶-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-pip-tBu) (1.73g, 96%)。

[4336] LCMS (ESI) $m/z = 479.4$ (M+H) +

[4337] 保留时间: 1.02分钟 (分析条件SQDAA05)

[4338] 使用所得化合物aa020 ((3S)-4-(4-叔丁基哌啶-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-pip-tBu) (1.73g, 3.61mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa020-树脂 ((3S)-4-(4-叔丁基哌啶-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(0-Trt(2-Cl)resin)-pip-tBu) (5.23g, 负载量0.356mmol/g)。

[4339] 化合物aa021-树脂、(3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(0-Trt(2-Cl)resin)-mor(S02))的合成



[4341] 使用Fmoc-Asp(OtBu)-OH(N-[(9H-芴-9-基甲氧基)羰基]-L-天冬氨酸4-叔丁酯、CAS号71989-14-5) (1g, 2.43mmol) 作为起始原料, 利用与化合物aa019-a的合成相同的方法, 代替二甲胺盐酸盐和DIPEA而使用硫代吗啉-1,1-二氧化物, 由此得到化合物aa021-a (492mg, 38%)。

[4342] LCMS (ESI) $m/z = 551$ (M+Na) +

[4343] 保留时间: 0.86分钟 (分析条件SQDAA05)

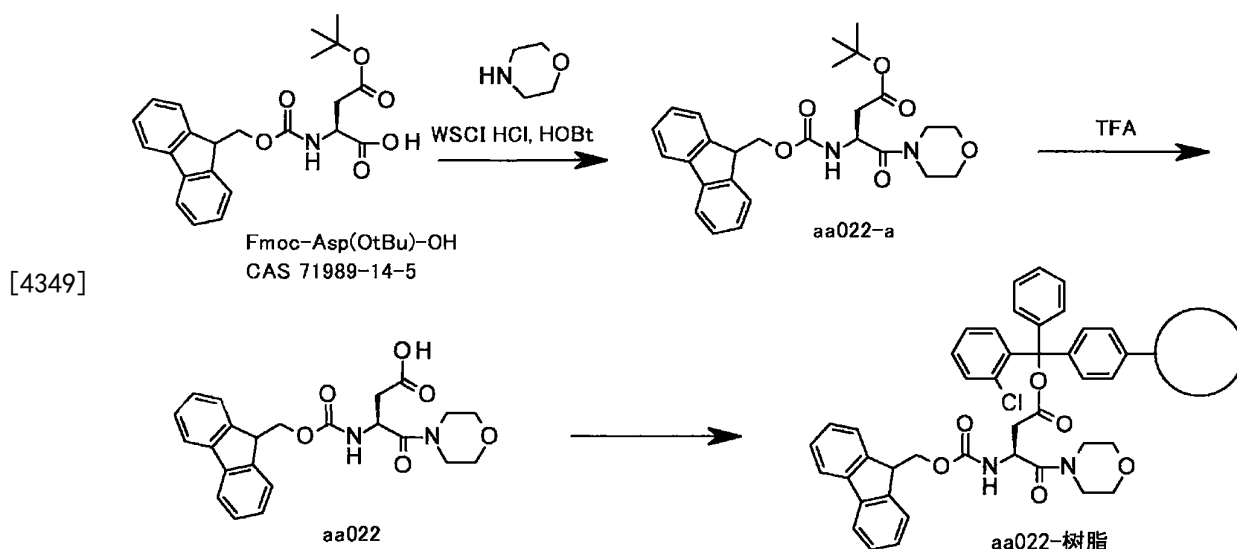
[4344] 使用所得化合物aa021-a (420mg, 0.795mmol), 利用与化合物aa020的合成相同的方法得到化合物aa021 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-mor(SO₂)) (356.4mg, 95%)。

[4345] LCMS (ESI) $m/z = 473$ (M+H) +

[4346] 保留时间: 0.67分钟 (分析条件SQDFA05)

[4347] 使用所得化合物aa021 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-mor(SO₂)) (346mg, 0.773mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa021-树脂 ((3S)-4-(1,1-二氧化-1,4-噻嗪烷-4-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-mor(SO₂)) (1.16g, 负载量0.371mmol/g)。

[4348] 化合物aa022-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt(2-Cl)resin)-mor) 的合成



[4350] 使用Fmoc-Asp(OtBu)-OH (N-[(9H-芴-9-基甲氧基) 羰基]-L-天冬氨酸4-叔丁酯、CAS号71989-14-5) (1g, 2.43mmol) 作为起始原料, 利用与化合物aa019-a的合成相同的方法, 代替二甲胺盐酸盐和DIPEA而使用吗啉, 由此得到化合物aa022-a (713mg, 61%)。

[4351] LCMS (ESI) $m/z = 481$ (M+H) +

[4352] 保留时间: 0.88分钟 (分析条件SQDAA05)

[4353] 使用所得化合物aa022-a (400mg, 0.832mmol), 利用与化合物aa020的合成相同的方法得到化合物aa022 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉-4-基-4-氧代丁酸、Fmoc-Asp-mor) (353.4mg, 100%)。

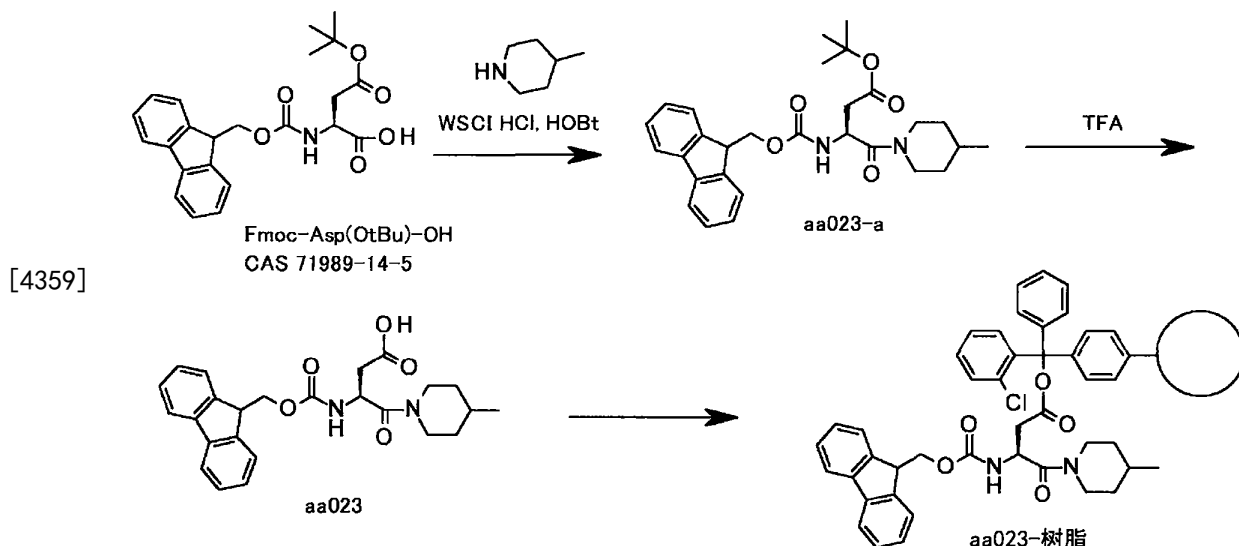
[4354] LCMS (ESI) $m/z = 425$ (M+H) +

[4355] 保留时间: 0.66分钟 (分析条件SQDFA05)

[4356] 使用所得化合物aa022 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉-4-基-4-氧代丁酸、Fmoc-Asp-mor) (326mg, 0.768mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa022-树脂 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt (2-Cl) resin)-mor) (1.21g, 负载量0.415mmol/g)。

[4357] 需要说明的是, 以同样方式合成的负载量不同的另一批也用于本实施例的肽合成。

[4358] 化合物aa023-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt (2-Cl) resin)-pip (4-Me)) 的合成



[4360] 使用Fmoc-Asp(OtBu)-OH (N-[(9H-芴-9-基甲氧基) 羰基] -L-天冬氨酸4-叔丁酯、CAS号71989-14-5) (1g, 2.43mmol) 作为起始原料, 利用与化合物aa019-a的合成相同的方法, 代替二甲胺盐酸盐和DIPEA而使用4-甲基哌啶, 由此得到化合物aa023-a的粗产物。将所得的粗产物溶解于20%乙酸乙酯-己烷中, 用饱和碳酸氢钠水溶液洗涤3次, 用饱和食盐水洗涤1次, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa023-a (430mg, 36%)。

[4361] LCMS (ESI) $m/z = 493 (M+H)^+$

[4362] 保留时间: 0.74分钟 (分析条件SQDAA50)

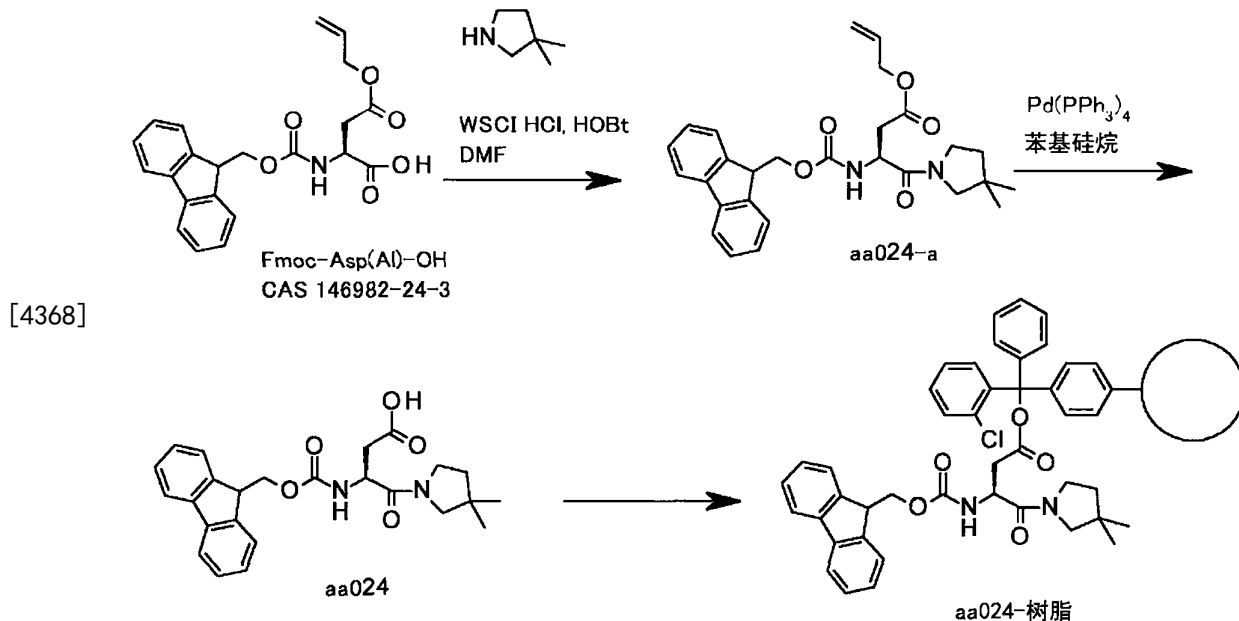
[4363] 使用所得化合物aa023-a (359mg, 0.728mmol), 利用与化合物aa020的合成相同的方法得到化合物aa023 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸、Fmoc-Asp-pip(4-Me)) (326.5mg, quant.)。

[4364] LCMS (ESI) $m/z = 437 (M+H)^+$

[4365] 保留时间: 0.80分钟 (分析条件SQDFA05)

[4366] 使用所得化合物aa023 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸、Fmoc-Asp-pip(4-Me)) (315mg, 0.722mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa023-树脂 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(4-甲基哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-pip(4-Me)) (1.07g, 担载量0.363mmol/g)。

[4367] 化合物aa024-树脂、(3S)-4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt(2-Cl)resin)-pyrro(3-Me2)) 的合成



[4369] 使用Fmoc-Asp(OtBu)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(2g, 5.06mmol)作为起始原料, 利用与化合物aa007-a的合成相同的方法, 代替吗啉而使用3,3-二甲基吡咯烷, 由此得到化合物aa024-a(1.36g, 56%)。

[4370] LCMS(ESI) $m/z = 477 (M+H)^+$

[4371] 保留时间: 1.322分钟(分析条件SQDAA05)

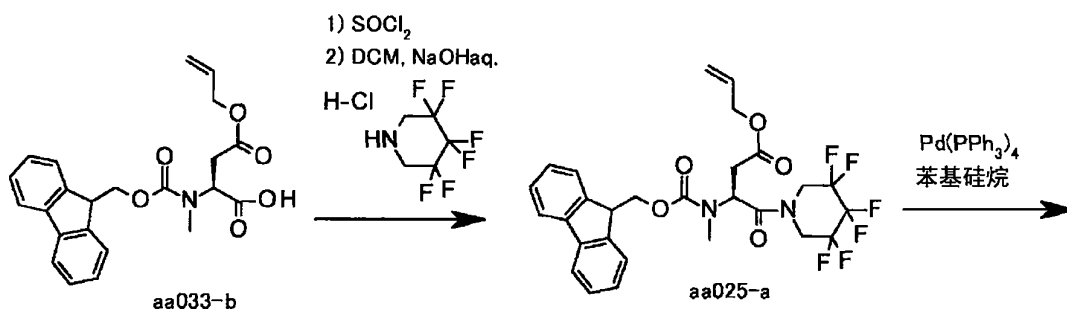
[4372] 使用所得化合物aa024-a(1.269g, 2.66mmol), 利用与化合物aa007的合成相同的方法得到化合物aa024((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-pyrro(3-Me₂))(1.041g, 90%)。

[4373] LCMS(ESI) $m/z = 437 (M+H)^+$

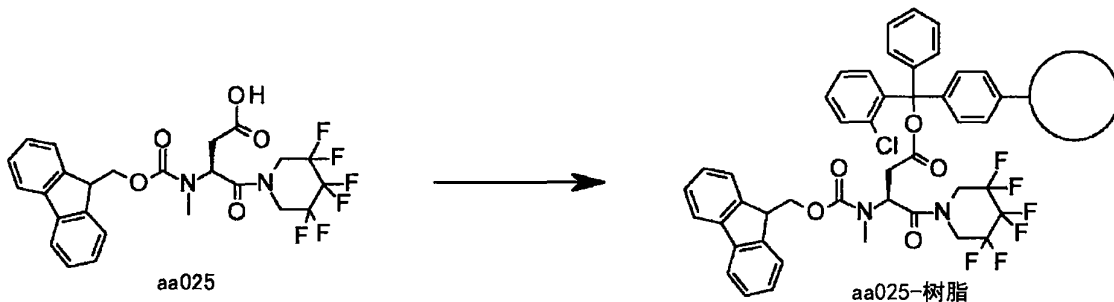
[4374] 保留时间: 0.81分钟(分析条件SQDFA05)

[4375] 使用所得化合物aa024((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸、Fmoc-Asp-pyrro(3-Me₂))(1.903g, 5.81mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa024-树脂((3S)-4-(3,3-二甲基吡咯烷-1-基)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-pyrro(3-Me₂))(4.16g, 担载量0.569mmol/g)。

[4376] 化合物aa025-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip(345-F6))的合成



[4377]



[4378] 在室温下,向化合物aa033-b((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸)(0.62g,1.57mmol)的DCM悬浮液(7.8mL,0.2M)中加入亚硫酸二氯(0.136mL,1.88mmol,1.2当量)和DMF(0.00607mL,0.078mmol,5mol%),搅拌4小时。将反应液浓缩后,在室温下将所得粗产物的DCM溶液(3mL)加入到3,3,4,4,5,5-六氟哌啶盐酸盐(300mg,1.31mmol)的DCM溶液(10mL)和1mol/L氢氧化钠水溶液(13mL)的混合悬浮液中搅拌1.5小时。将反应液用TBME萃取2次,用水洗涤所得有机层后,用硫酸钠干燥,然后减压浓缩,得到粗产物。利用中压反相色谱纯化所得粗产物,得到化合物aa025-a(587mg,77%)。

[4379] LCMS (ESI) $m/z = 585$ (M+H) +

[4380] 保留时间:1.03分钟(分析条件SQDFA05)

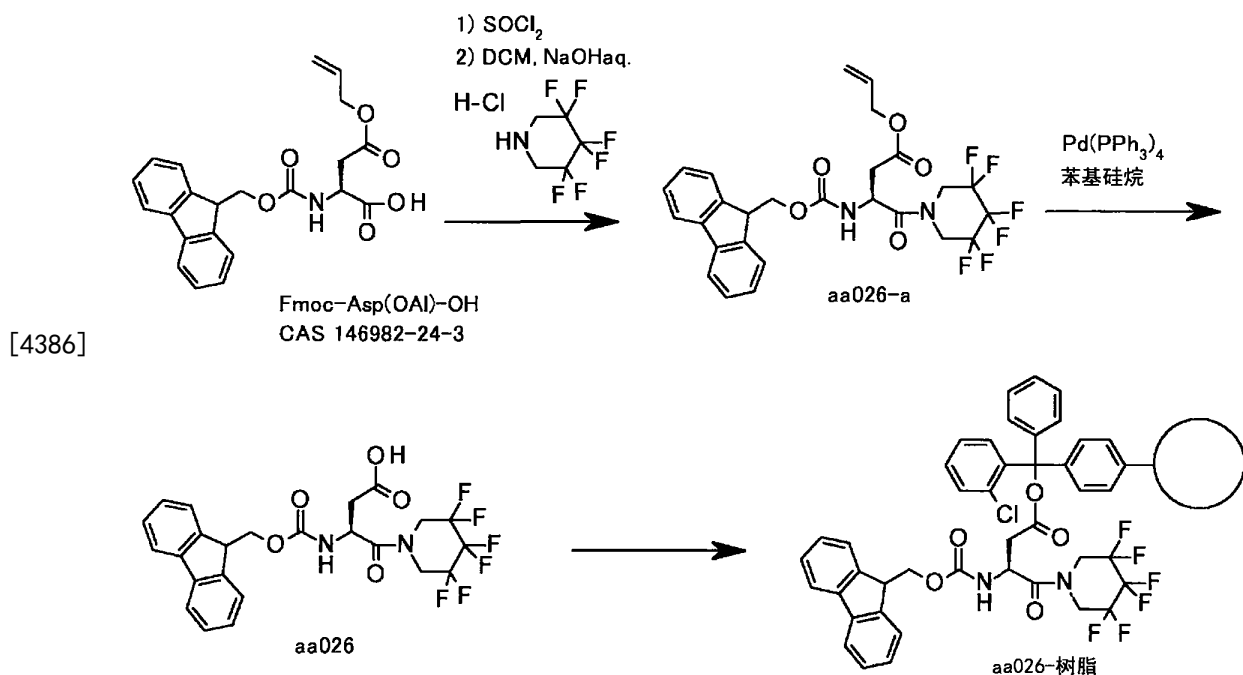
[4381] 使用所得化合物aa025-a(550mg,0.941mmol),利用与化合物aa007的合成相同的方法得到化合物aa025((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸、Fmoc-MeAsp-pip(345-F6))(413mg,81%)。

[4382] LCMS (ESI) $m/z = 545$ (M+H) +

[4383] 保留时间:0.89分钟(分析条件SQDFA05)

[4384] 使用所得化合物aa025((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸、Fmoc-MeAsp-pip(345-F6))(327mg,0.6mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa025-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip(345-F6))(1.17g,负载量0.315mmol/g)。

[4385] 化合物aa026-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl)resin)-pip(345-F6))的合成



[4387] 使用Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(649mg,1.568mmol)作为起始原料,利用与化合物aa0025-a的合成相同的方法,得到化合物aa0026-a(552mg,74%)。

[4388] LCMS(ESI) $m/z = 571$ (M+H) +

[4389] 保留时间:0.97分钟(分析条件SQDFA05)

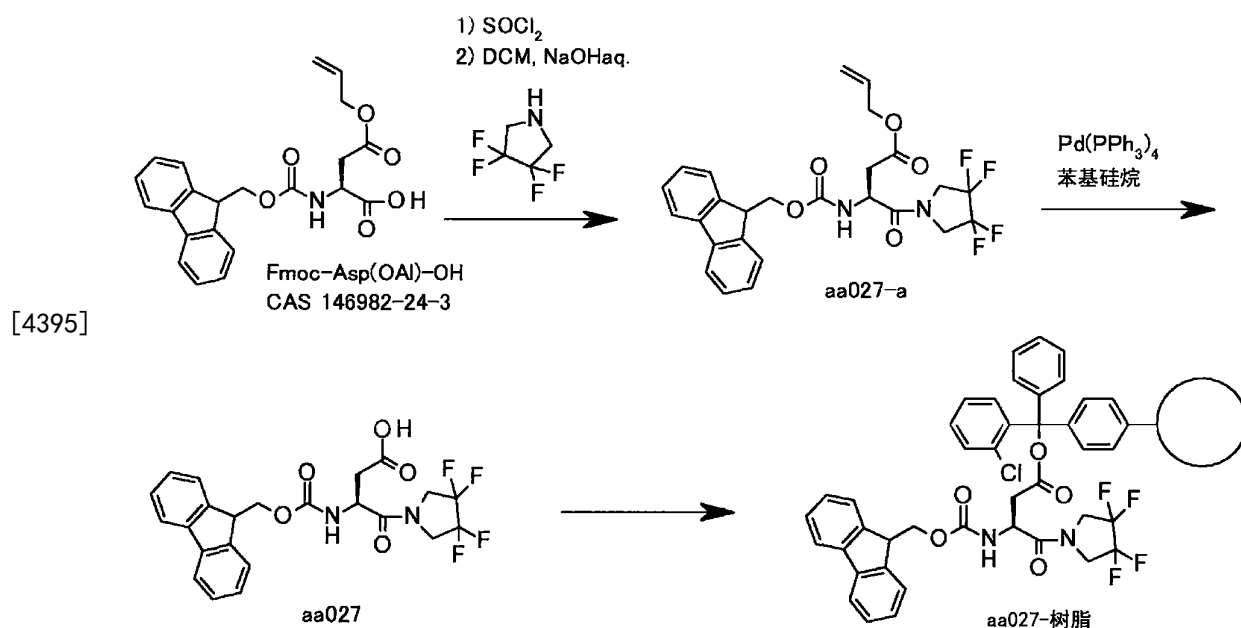
[4390] 使用所得化合物aa026-a(552mg,0.968mmol),利用与化合物aa007的合成相同的方法得到化合物aa026((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸、Fmoc-Asp-pip(345-F6))(462mg,90%)。

[4391] LCMS(ESI) $m/z = 531$ (M+H) +

[4392] 保留时间:0.84分钟(分析条件SQDFA05)

[4393] 使用所得化合物aa026((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸、Fmoc-Asp-pip(345-F6))(446mg,0.84mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa026-树脂((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3,3,4,4,5,5-六氟哌啶-1-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-pip(345-F6))(1.64g,负载量0.309mmol/g)。

[4394] 化合物aa027-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl)resin)-pyrro(34-F4))的合成



[4396] 使用Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(0.62g,1.568mmol)作为起始原料,利用与化合物aa0025-a的合成相同的方法,代替3,3,4,4,5,5-六氟哌啶盐酸盐而使用3,3,4,4-四氟吡咯烷盐酸盐,由此得到化合物aa0027-a(478mg,91%)。

[4397] LCMS(ESI) $m/z=521$ (M+H) +

[4398] 保留时间:0.95分钟(分析条件SQDFA05)

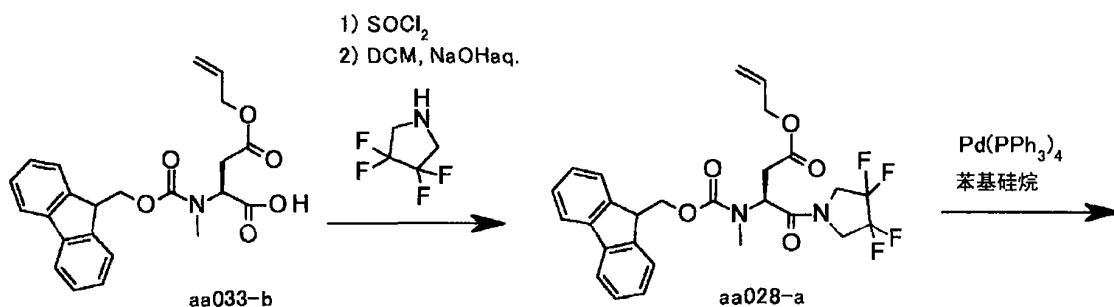
[4399] 使用所得化合物aa027-a(416mg,0.799mmol),利用与化合物aa007的合成相同的方法得到化合物aa027((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸、Fmoc-Asp-pyrro(34-F4))(388mg,quant.)。

[4400] LCMS(ESI) $m/z=481$ (M+H) +

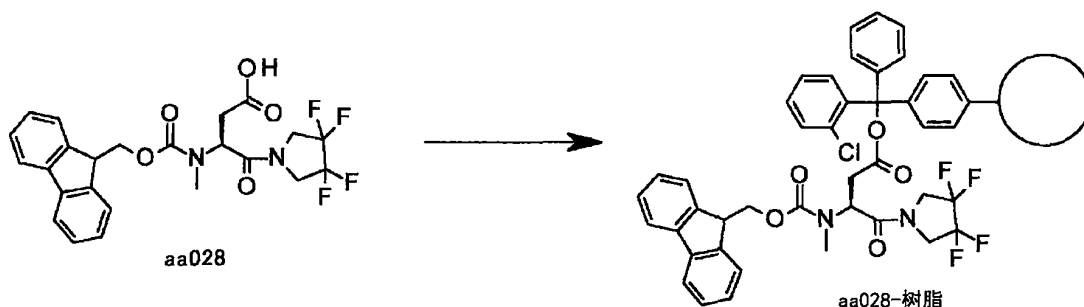
[4401] 保留时间:0.81分钟(分析条件SQDFA05)

[4402] 使用所得化合物aa027((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸、Fmoc-Asp-pyrro(34-F4))(0.388g,0.808mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa027-树脂((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸-2-氯三苯甲酯树脂、Fmoc-Asp(O-Trt(2-Cl)resin)-pyrro(34-F4))(1.74g,负载量0.343mmol/g)。

[4403] 化合物aa028-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯烷-1-基)丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-pyrro(34-F4))的合成



[4404]



[4405] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (0.416mg, 1.208mmol) 作为起始原料, 利用与化合物aa0025-a的合成相同的方法, 代替3,3,4,4,5,5-六氟吡咯啉盐酸盐而使用3,3,4,4-四氟吡咯啉盐酸盐, 由此得到化合物aa0028-a (490mg, 90%)。

[4406] LCMS (ESI) $m/z = 535$ (M+H) +

[4407] 保留时间: 0.99分钟 (分析条件SQDFA05)

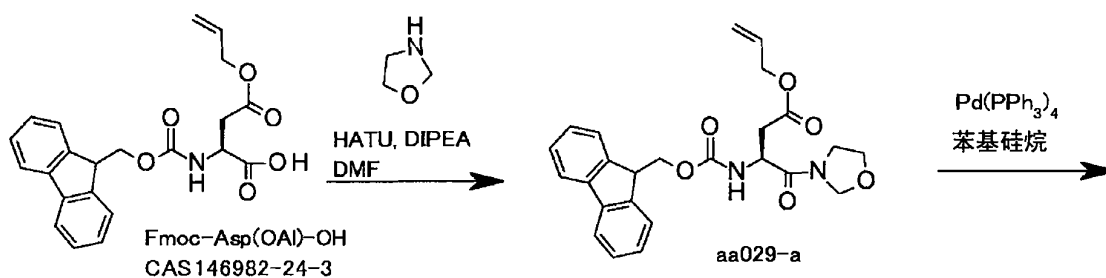
[4408] 使用所得化合物aa028-a (450mg, 0.842mmol), 利用与化合物aa007的合成相同的方法得到化合物aa028 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯啉-1-基)丁酸、Fmoc-MeAsp-pyrro (34-F4)) (388mg, 97%)。

[4409] LCMS (ESI) $m/z = 495$ (M+H) +

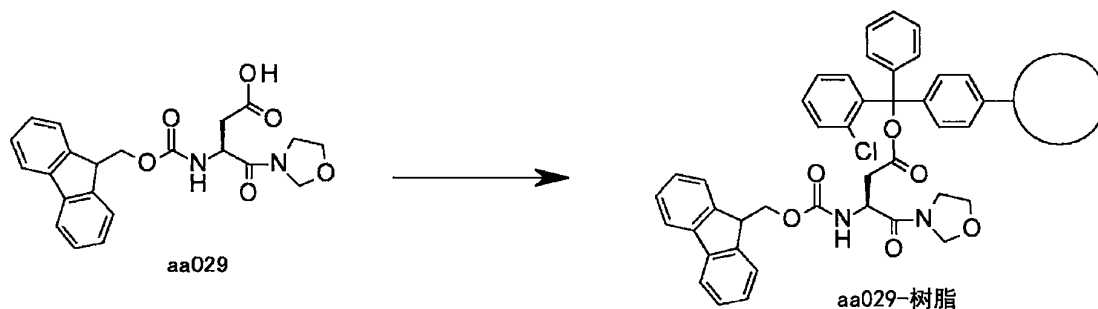
[4410] 保留时间: 0.83分钟 (分析条件SQDFA05)

[4411] 使用所得化合物aa028 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯啉-1-基)丁酸、Fmoc-MeAsp-pyrro (34-F4)) (388mg, 0.785mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa028-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-(3,3,4,4-四氟吡咯啉-1-基)丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -pyrro (34-F4)) (1.88g, 担载量0.355mmol/g)。

[4412] 化合物aa029-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(1,3-噁唑烷-3-基)-4-氧代丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp (O-Trt (2-Cl) resin) -oxz) 的合成



[4413]



[4414] 向Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(700mg, 1.77mmol)和HATU(740mg, 1.1当量)的DMF溶液(3.5mL, 0.5M)中加入DIPEA(229mg, 1当量),在室温下搅拌5分钟,然后加入噁唑烷(155mg, 1.2当量)搅拌15分钟。向反应液中加入水,然后用TBME和DCM萃取。在减压下从所得有机层中蒸馏除去溶剂。利用中压反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得粗产物,得到化合物aa029-a(456.7mg, 57%)。

[4415] LCMS(ESI) $m/z = 451 (M+H)^+$

[4416] 保留时间:0.82分钟(分析条件SQDFA05)

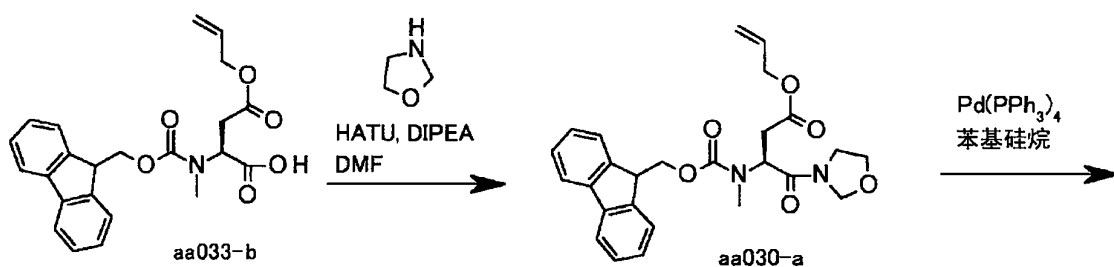
[4417] 使用所得化合物aa029-a(444mg, 0.985mmol),利用与化合物aa007的合成相同的方法得到化合物aa029((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(1,3-噁唑烷-3-基)-4-氧代丁酸、Fmoc-Asp-oxz(426mg, quant.)。

[4418] LCMS(ESI) $m/z = 411 (M+H)^+$

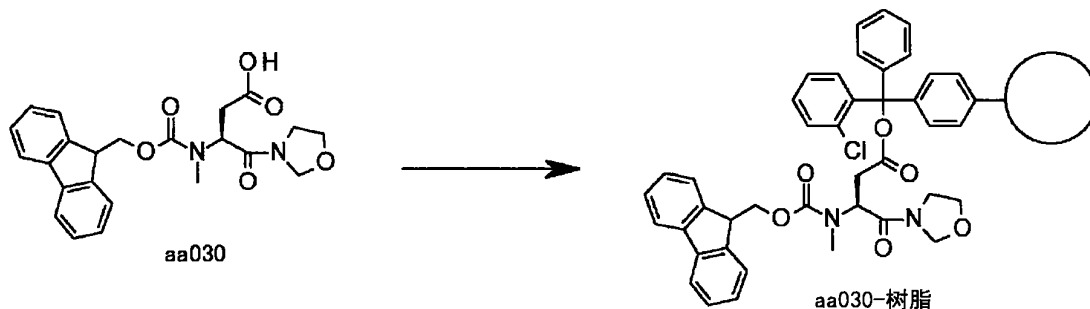
[4419] 保留时间:0.67分钟(分析条件SQDFA05)

[4420] 使用所得化合物aa029((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(1,3-噁唑烷-3-基)-4-氧代丁酸、Fmoc-Asp-oxz(425mg, 1.036mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa029-树脂((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(1,3-噁唑烷-3-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl)resin)-oxz)(1.99g, 担载量0.285mmol/g)。

[4421] 化合物aa030-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(1,3-噁唑烷-3-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-oxz)的合成



[4422]



[4423] 使用化合物aa033-b ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-丙-2-烯氧基丁酸) (725mg, 1.77mmol) 作为起始原料, 利用与化合物aa0029-a的合成相同的方法, 得到化合物aa0030-a (164mg, 20%)。

[4424] LCMS (ESI) $m/z = 465$ (M+H) +

[4425] 保留时间: 0.86分钟 (分析条件SQDFA05)

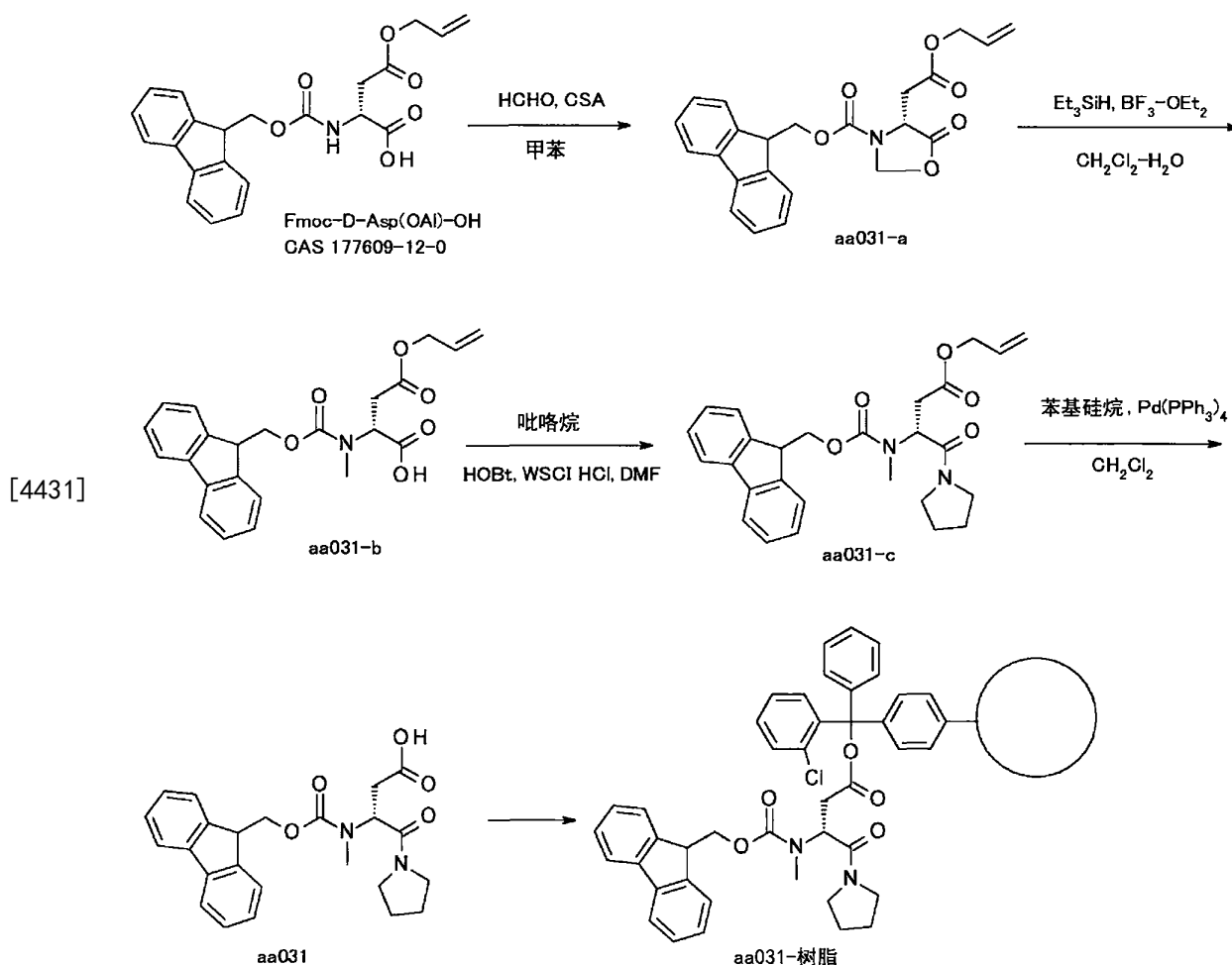
[4426] 使用所得化合物aa030-a (146.4mg, 0.315mmol), 利用与化合物aa007的合成相同的方法得到化合物aa030 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(1,3-噁唑烷-3-基)-4-氧代丁酸、Fmoc-MeAsp-oxz) (111mg, 83%)。加入以同样方式合成的另一批并用于下一步反应。

[4427] LCMS (ESI) $m/z = 425$ (M+H) +

[4428] 保留时间: 0.69分钟 (分析条件SQDFA05)

[4429] 使用所得化合物aa030 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(1,3-噁唑烷-3-基)-4-氧代丁酸、Fmoc-MeAsp-oxz) (0.25g, 0.589mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa030-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(1,3-噁唑烷-3-基)-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-oxz) (1.06g, 担载量0.283mmol/g)。

[4430] 化合物aa031-树脂、(3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂 (Fmoc-D-MeAsp(O-Trt(2-Cl)resin)-pyrro) 的合成



[4432] 使Fmoc-D-Asp(OA1)-OH((2R)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸)(780mg,1.97mmol)悬浮于甲苯(10ml)中,加入多聚甲醛(178mg,5.92mmol)、CSA(22.9mg,0.10mmol),在85℃搅拌2小时。冷却至室温后,加入饱和碳酸氢钠水溶液,用乙酸乙酯萃取。将有机层用饱和食盐水/水(1/1)洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂,得到化合物aa031-a的粗产物。不经过进一步的纯化地进行下一步反应。

[4433] 将化合物aa031-a溶解于二氯甲烷(10mL)中,加入三氟化硼乙醚络合物(0.50mL, 3.95mmol)、三乙基硅烷(0.63mL, 3.95mmol),在室温下搅拌3小时。向反应液中加入饱和氯化铵水溶液,用二氯甲烷萃取。将有机层用饱和食盐水洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂。将所得浓缩物溶解于乙腈中,用己烷洗涤。在减压下从乙腈层中蒸馏除去溶剂,得到化合物aa031-b的粗产物(530mg)。不经过进一步的纯化地进行下一步反应。

[4434] 将化合物aa031-b (530mg, 1.29mmol) 溶解于DMF (5mL) 中, 加入HOBt一水合物 (218mg, 1.42mmol)、WSCI·HCl (298mg, 1.55mmol), 在0℃搅拌30分钟。向反应液中加入吡咯烷 (0.11ml, 1.29mmol), 进一步在室温下搅拌30分钟。向反应液中加入0.5N盐酸水溶液, 用乙酸乙酯萃取。将有机层用饱和碳酸氢钠水溶液、饱和食盐水洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa031-c (550mg, 60%, 3个工序60%)。

[4435] LCMS (ESI) $m/z = 463$ (M+H) +

[4436] 保留时间:0.89分钟(分析条件SQDFA05)

[4437] 将化合物aa031-c (粗品, 550mg, 1.19mmol) 溶解于二氯甲烷 (10ml) 中, 加入苯基硅

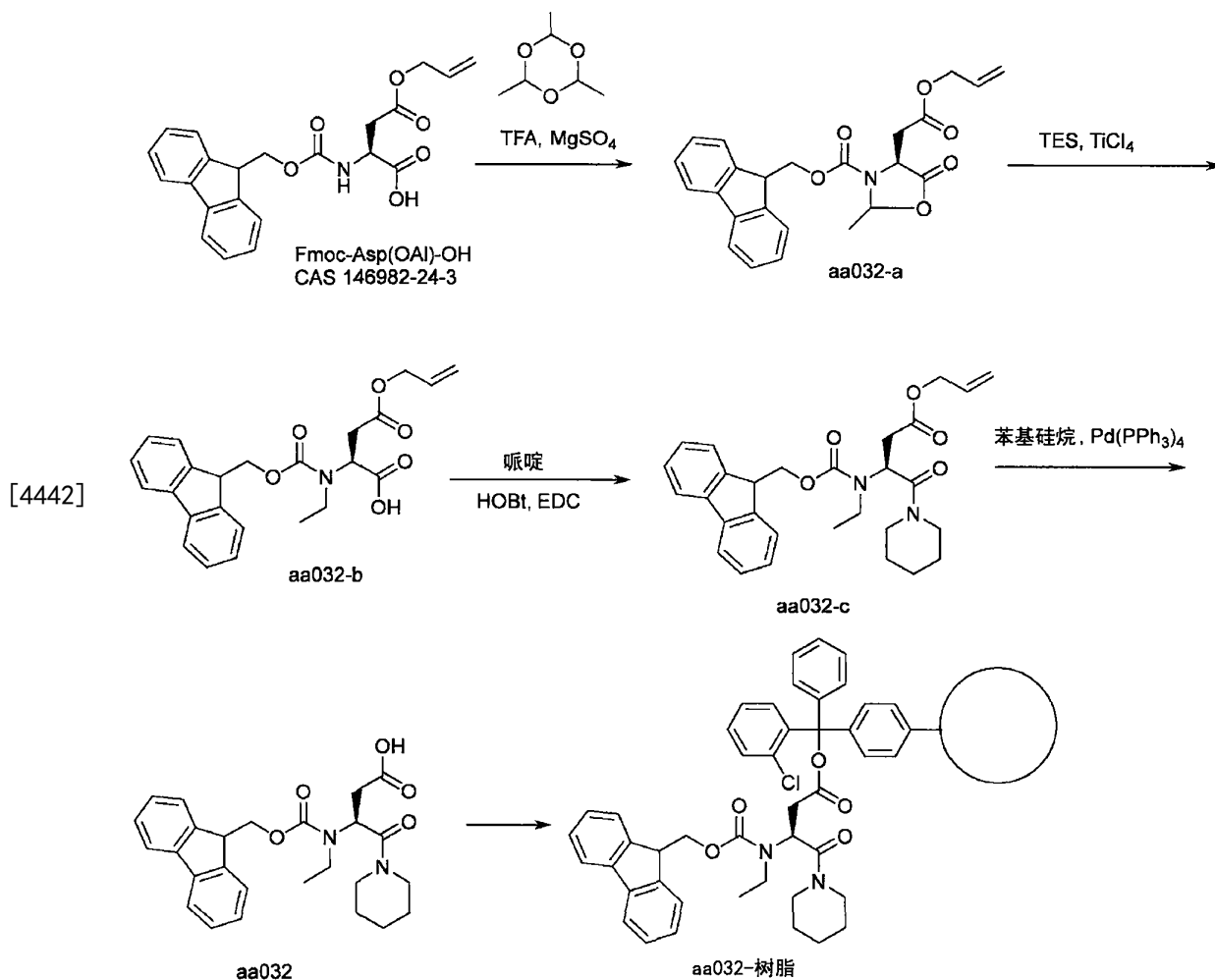
烷(0.10ml, 0.83mmol)、四(三苯基膦)钯(0)(13.7mg, 0.012mmol), 在室温下搅拌1小时。将反应液用TBME稀释, 加入5%碳酸氢钠水溶液(40ml)。除去有机层, 向水层中加入磷酸(699mg), 用TBME萃取。用饱和食盐水/水(1/1, 40mL)洗涤, 用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂, 得到化合物aa031((3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-D-MeAsp-pyrro)(334mg, 67%)。

[4438] LCMS (ESI) $m/z = 423$ (M+H) +

[4439] 保留时间: 0.71分钟(分析条件SQDFA05)

[4440] 使用所得化合物aa031((3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸、Fmoc-D-MeAsp-pyrro)(330mg, 0.781mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa031-树脂((3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-D-MeAsp(O-Trt(2-Cl)resin)-pyrro)(担载量0.423mmol/g)。

[4441] 化合物aa032-树脂、(3S)-3-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-EtAsp(O-Trt(2-Cl)resin)-pip)的合成



[4443] 在氮气气氛下, 使化合物Fmoc-Asp(OAl)-OH((2S)-2-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-丙-2-烯氧基丁酸、CAS号146982-24-3)(5g, 12.65mmol, CAS号146982-24-3)悬浮于甲苯(15.2mL)中, 加入无水硫酸镁(4.57g, 37.9mmol)、三聚乙醛(2.53mL, 19.0mmol)、TFA(1.94mL, 25.3mmol), 在70℃搅拌5小时。将反应液冷却至室温后, 用水

(10v)、1M磷酸氢二钾(K_2HPO_4)水溶液(3v)、3.5%碳酸氢钾($KHCO_3$)水溶液(4v)、乙腈(2v)的混合液洗涤2次,用饱和食盐水/水(1/1,5v)洗涤,将有机层用硫酸镁干燥。过滤得到的有机层后,减压浓缩,得到aa032-a的粗产物,不经过进一步的纯化地进行下一步反应。

[4444] LCMS (ESI) $m/z=422$ (M+H) +

[4445] 保留时间:0.92分钟(分析条件SQDFA05)

[4446] 在氮气气氛下,向含有化合物aa032-a的粗产物的甲苯溶液(16mL)中加入三乙基硅烷(4.04mL,25.3mmol)、四氯化钛($TiCl_4$)的1M甲苯溶液(25.3mL,25.3mmol),在室温下搅拌50分钟。将反应液用水(5v)洗涤2次,用1M磷酸氢二钾(K_2HPO_4)水溶液(5v)洗涤。将己烷(9v)加入到所得有机层后,用3.5%碳酸氢钾($KHCO_3$)水溶液(4v)和乙腈(2v)的混合液萃取2次,用己烷(8v)洗涤所得水层。将所得水层用85%磷酸水溶液调节至pH3以下后,用TBME(5v)萃取,所得有机层用饱和食盐水洗涤,然后用硫酸镁干燥。将所得有机层过滤,然后减压浓缩,得到化合物aa032-b(4.85g,2个工序91%)。

[4447] LCMS (ESI) $m/z=424$ (M+H) +

[4448] 保留时间:0.85分钟(分析条件SQDFA05)

[4449] 使用化合物aa032-b(512mg,1.21mmol)为起始原料,利用与化合物aa007-a的合成相同的方法,代替吗啉而使用哌啶,由此得到化合物aa032-c(530mg,89%)。

[4450] LCMS (ESI) $m/z=491$ (M+H) +

[4451] 保留时间:0.99分钟(分析条件SQDFA05)

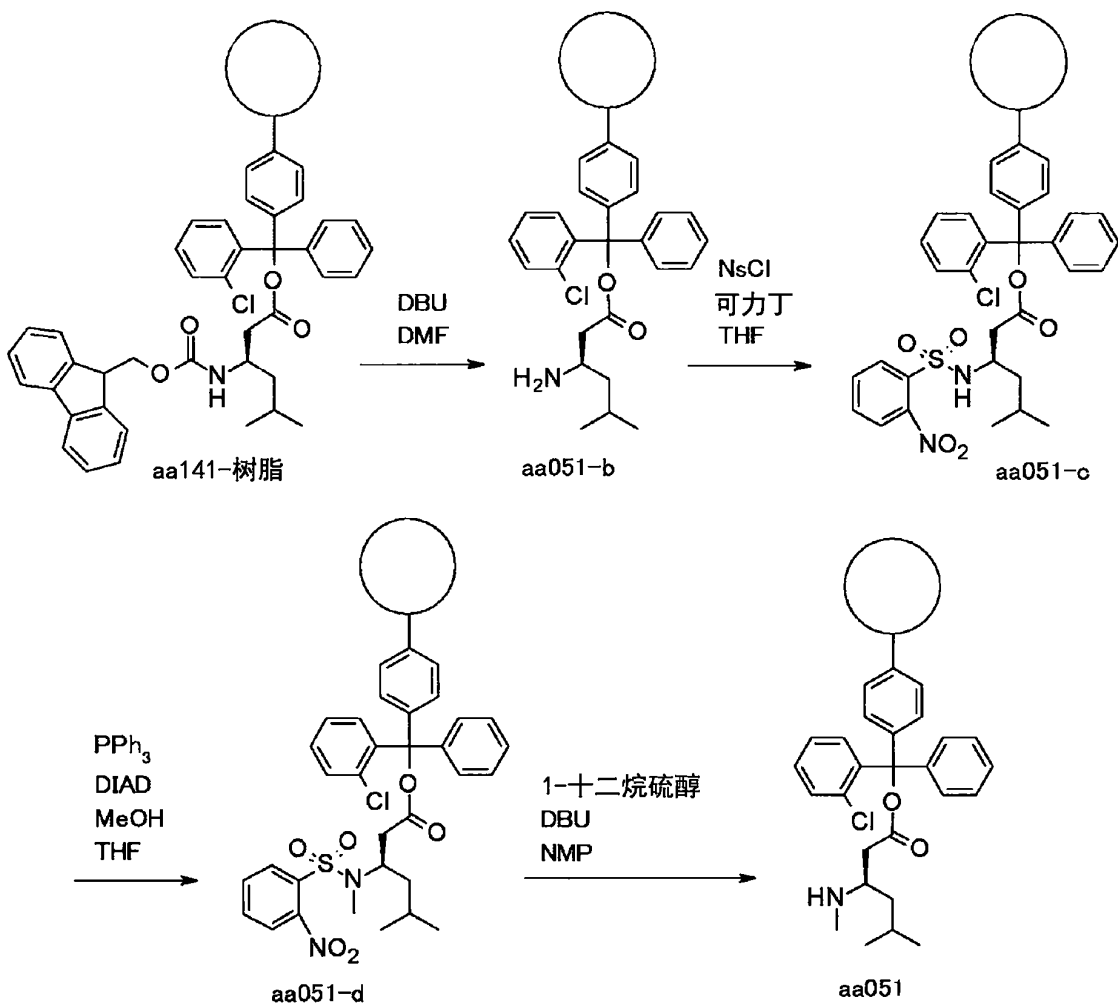
[4452] 使用所得化合物aa032-c(495mg,1.01mmol),利用与化合物aa007的合成相同的方法得到化合物aa032((3S)-3-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-氧代-4-哌啶-1-基丁酸、Fmoc-EtAsp-pip)(334mg,73%)。

[4453] LCMS (ESI) $m/z=451$ (M+H) +

[4454] 保留时间:0.82分钟(分析条件SQDFA05)

[4455] 使用所得化合物aa032((3S)-3-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-氧代-4-哌啶-1-基丁酸、Fmoc-EtAsp-pip)(0.33g,0.732mmol),利用与化合物aa007-树脂的合成相同的方法得到化合物aa032-树脂((3S)-3-[乙基(9H-芴-9-基甲氧基羰基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-EtAsp(0-Trt(2-Cl)resin)-pip)(18.3g,担载量0.350mmol/g)。

[4456] 化合物aa051((3R)-5-甲基-3-(甲氨基)己酸-2-氯三苯甲酯树脂、H-D-MeLeu-(C#CH2)-0-Trt(2-Cl)resin)的合成



[4458] 向带有过滤器的反应容器中加入化合物aa141-树脂(100mg, 0.0499mmol, 0.499mmol/g)和脱水DCM(1.0mL)使树脂溶胀。除去DCM后,用脱水DMF(0.7mL)洗涤树脂2次。加入Fmoc脱保护溶液(二氮杂双环十一碳烯(DBU)的DMF溶液(2%v/v), 0.7mL)在室温下振荡10分钟后,除去反应液。将树脂用脱水的THF(0.7mL)洗涤4次,得到担载有树脂的化合物aa051-b。

[4459] 向其中加入邻硝基苯磺酰氯/脱水THF溶液(使用以0.88g/7mL制备的溶液中的0.35mL, 0.20mmol)和可力丁/THF溶液(将可力丁(1.35mL)用THF稀释成7mL后,使用溶液中的0.35mL, 0.50mmol),在40℃下振荡2小时。然后除去反应液,将树脂用脱水THF(0.7mL)洗涤4次后,接着用脱水DCM(0.7mL)洗涤4次,得到担载于树脂的化合物aa051-c。

[4460] 向其中加入脱水DCM(1.0mL)使之溶胀,用脱水THF(0.7mL)洗涤4次后,加入三苯基膦/脱水THF溶液(66.0mg/0.7mL, 0.25mmol)、甲醇(0.020mL, 0.50mmol)以及偶氮二甲酸二异丙酯(DIAD)(0.05mL, 0.25mmol),在40℃振荡30分钟。然后除去反应液,将树脂用脱水THF(0.7mL)洗涤4次,然后用脱水DCM(0.7mL)洗涤4次,得到担载于树脂的化合物aa051-d。

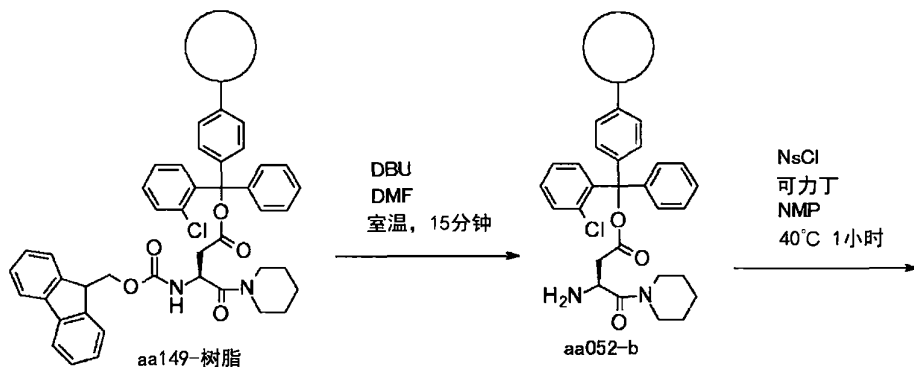
[4461] 向其中加入脱水DCM(1.0mL)使之溶胀,用脱水NMP(0.7mL)洗涤4次后,加入DBU/NMP溶液(将DBU(0.4mL)用脱水NMP稀释成3.5mL后,使用溶液中的0.35mL)和1-十二硫醇/NMP溶液(将1-十二硫醇(1.2mL)用脱水NMP稀释成3.5mL后,使用溶液中的0.35mL),在40℃振荡1小时。然后,除去反应液,将树脂用脱水NMP(0.7mL)洗涤4次后,接着用脱水DCM(0.7mL)洗涤4次,得到担载于树脂的化合物aa051。

[4462] 使用少量的担载于树脂的化合物aa051,用TFE/DCM(1/1)进行氨基酸从树脂的切割,用LC/MS进行结构确认。

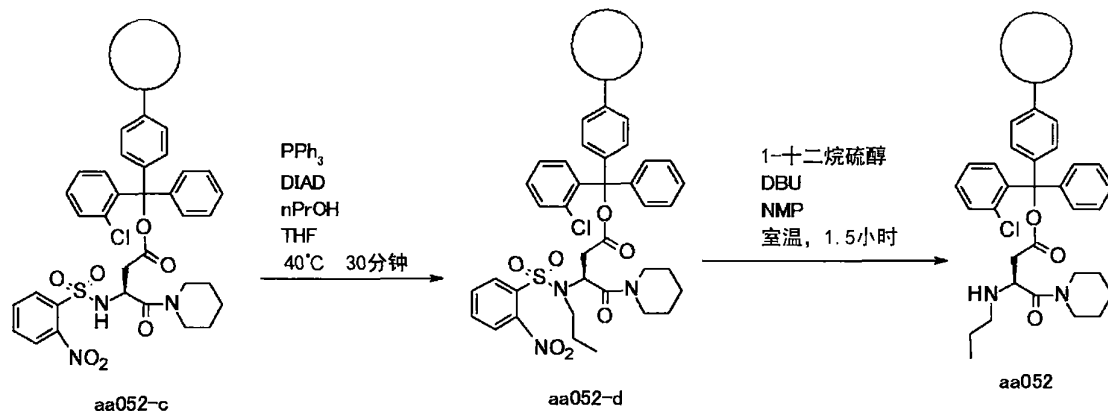
[4463] LCMS (ESI) $m/z = 160 (M+H)^+$

[4464] 保留时间:0.30分钟(分析条件SQDAA05)

[4465] 化合物aa052((3S)-4-氧代-4-哌啶-1-基-3-(丙基氨基)丁酸-2-氯三苯甲酯树脂、H-nPrAsp-O-Trt(2-Cl)resin)的合成



[4466]



[4467] 向带有过滤器的反应容器中加入化合物aa149-树脂(3g, 1.36mmol, 0.452mmol/g)和脱水DCM(30mL),在室温下振荡15分钟。通过施加氮气压除去DCM之后,加入脱水DMF(30mL)并通过施加氮气压除去DMF,这样的操作进行4次。加入2%DBU的DMF(18mL)溶液,在室温下振荡15分钟,通过施加氮气压除去反应液。加入脱水NMP(30mL)并通过施加氮气压除去NMP的操作进行6次,得到担载于树脂的化合物aa052-b。

[4468] 向其中加入脱水NMP(30mL)并通过施加氮气压除去NMP,将该操作进行6次。加入NsCl(1.20g, 5.42mmol)的脱水NMP溶液(30mL)和可力丁(1.8mL, 13.6mmol),在40°C下振荡1小时后,通过施加氮气压除去反应液。加入脱水NMP(30mL)并通过施加氮气压除去NMP,将该操作进行6次,得到担载于树脂的化合物aa052-c。

[4469] 向其中加入脱水DCM(30mL)并在室温下振荡15分钟。施加氮气压除去DCM之后,加入脱水DCM(25mL)并通过施加氮气压除去DCM,将该操作进行2次。加入脱水THF(25mL)并通过施加氮气压除去THF,将该操作进行4次。加入在THF(30mL)中溶解有三苯基膦(1.78g, 6.78mmol)、DIAD(1.34mL, 6.78mmol)、1-丙醇(1.02mL, 13.6mmol)的溶液,在40°C下振荡30分钟,通过施加氮气压除去反应液。加入脱水THF(25mL)并通过施加氮气压除去THF,将该操作进行4次。加入脱水DCM(25mL)并通过施加氮气压除去DCM,将该操作进行4次,从而得到担载于树脂的化合物aa052-d。

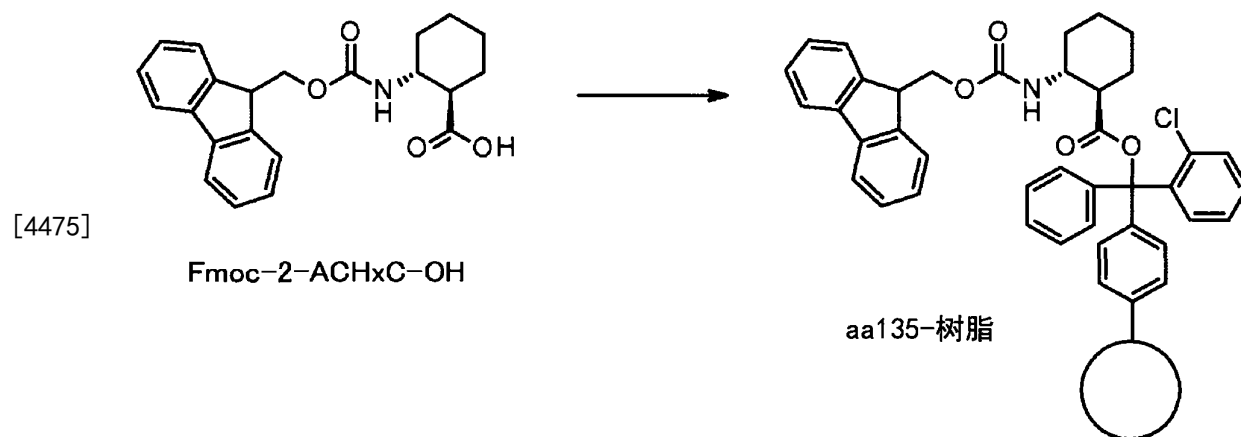
[4470] 向带有过滤器的容器中加入担载于树脂的化合物aa052-d (600mg, 0.271mol, 0.452mmol/g) 和脱水DCM (6mL), 在室温下振荡15分钟。通过施加氮气压除去DCM之后, 加入脱水NMP (6mL) 并通过施加氮气压除去NMP, 将该操作进行4次。加入脱水NMP和DBU的混合溶液 (9/1, 2.4mL)、以及脱水NMP和十二烷硫醇的混合溶液 (3/1, 3mL), 在室温下振荡1.5小时, 通过施加氮气压除去反应液。加入脱水NMP (6mL) 并通过施加氮气压除去NMP, 将该操作进行四次。加入脱水DCM (6mL) 并通过施加氮气压除去DCM, 将该操作进行4次, 从而得到担载于树脂的化合物aa052。

[4471] 使用少量的担载于树脂的化合物aa052, 用TFE/DCM (1/1) 进行氨基酸从树脂的切割, 用LC/MS进行结构确认。

[4472] LCMS (ESI) $m/z = 243 (M+H)^+$

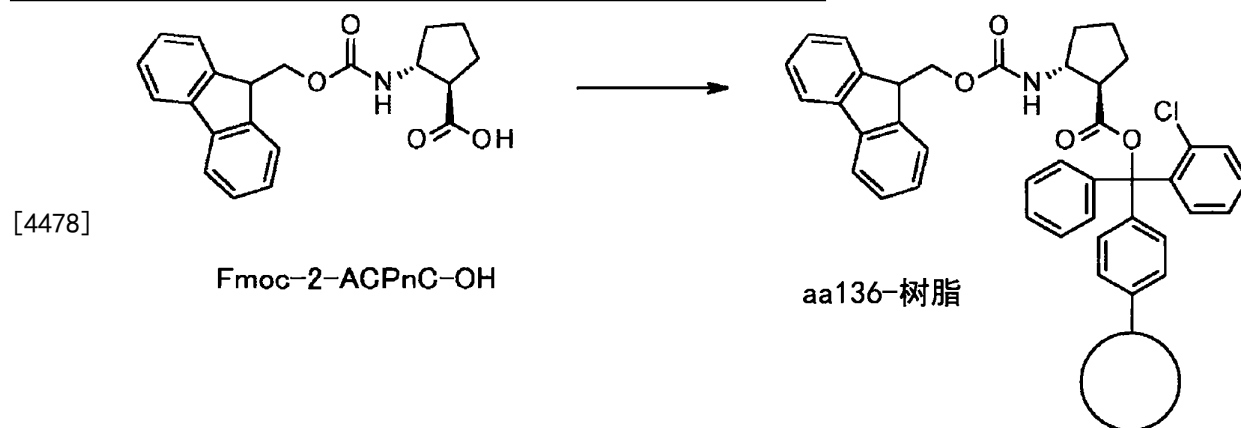
[4473] 保留时间: 0.30分钟 (分析条件SQDAA05)

[4474] 化合物aa135-树脂、((1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环己烷-1-甲酸-2-氯三苯甲酯树脂、Fmoc-2-ACHxC-0-Trt (2-Cl) resin) 的合成



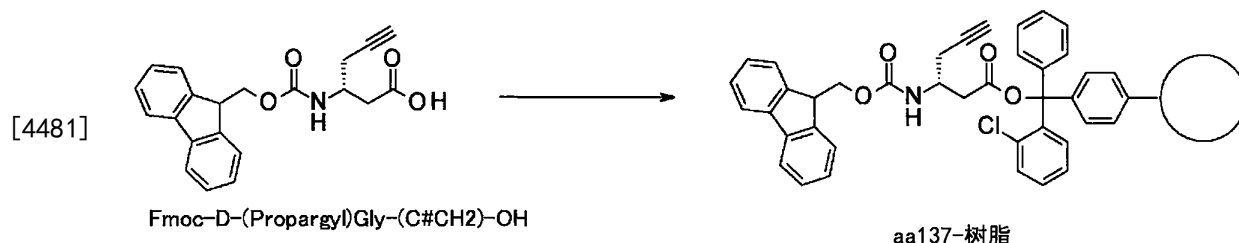
[4476] 使用购自商业供应商的((1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环己烷-1-甲酸 (Fmoc-2-ACHxC-OH) (1.12g, 3.07mmol) 和2-氯三苯甲基氯树脂 (1.60mmol/g, 100-200目, 1%DVB, 3.84g, 6.14mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa135-树脂 ((1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环己烷-1-甲酸-2-氯三苯甲酯树脂、Fmoc-2-ACHxC-0-Trt (2-Cl) resin) (4.38g, 担载量0.411mmol/g)。

[4477] 化合物aa136-树脂 ((1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环戊烷-1-甲酸-2-氯三苯甲酯树脂 (Fmoc-2-ACPnC-0-Trt (2-Cl) resin) 的合成



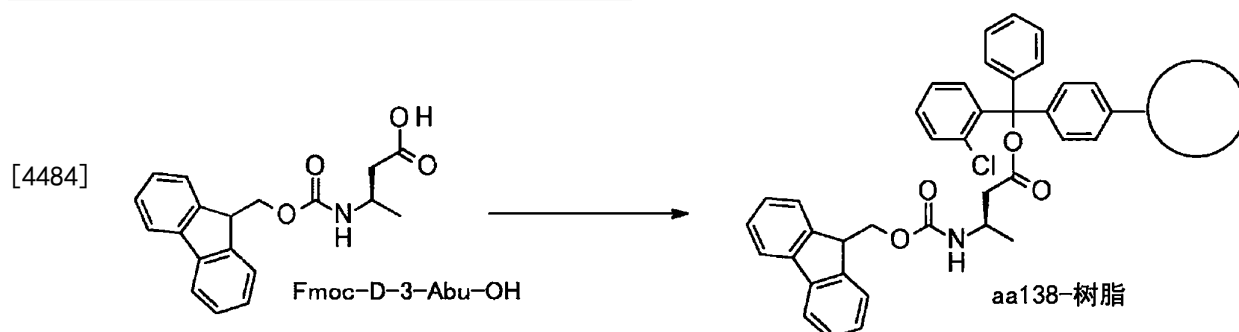
[4479] 使用购自商业供应商的(1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环戊烷-1-甲酸(Fmoc-2-ACPnC-OH) (0.411g, 1.17mmol) 和2-氯三苯甲基氯树脂(1.60mmol/g, 100-200目, 1%DVB, 1.46g, 2.34mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa136-树脂((1R,2R)-2-(9H-芴-9-基甲氧基羰基氨基)环戊烷-1-甲酸-2-氯三苯甲酯树脂、Fmoc-2-ACPnC-O-Trt (2-Cl) resin) (1.65g, 担载量0.520mmol/g)。

[4480] 化合物aa137-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-炔酸-2-氯三苯甲酯树脂(Fmoc-D-(Propargyl)Gly-(C#CH₂)-O-Trt (2-Cl) resin)的合成



[4482] 使用购自商业供应商的(3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-炔酸(Fmoc-D-(Propargyl)Gly-(C#CH₂)-OH) (0.994g, 2.85mmol) 和2-氯三苯甲基氯树脂(1.59mmol/g, 100-200目, 1%DVB, 3.58g, 5.69mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa137-树脂((3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-炔酸-2-氯三苯甲酯树脂、Fmoc-D-(Propargyl)Gly-(C#CH₂)-O-Trt (2-Cl) resin) (4.18g, 担载量0.432mmol/g)。

[4483] 化合物aa138-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂(Fmoc-D-3-Abu-O-Trt (2-Cl) resin)的合成

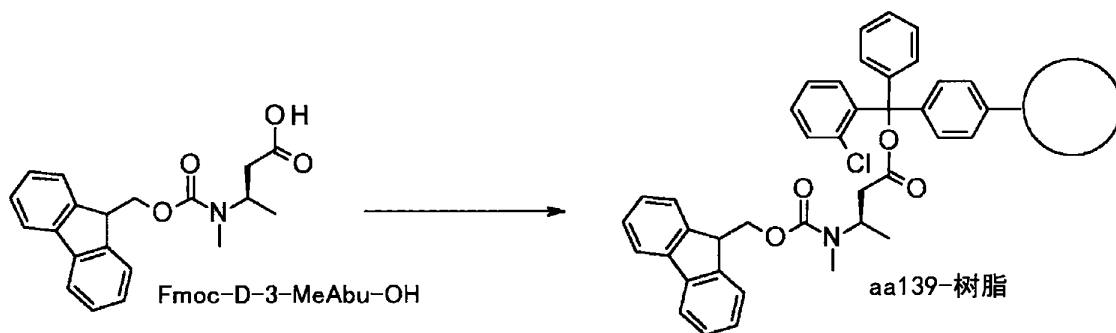


[4485] 使用购自商业供应商的(3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸(Fmoc-D-3-Abu-OH) (7.1g, 21.82mmol) 和2-氯三苯甲基氯树脂(1.6mmol/g, 100-200目, 1%DVB, 27.25g, 43.6mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa138-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂(Fmoc-D-3-Abu-O-Trt (2-Cl) resin) (33.44g, 担载量0.598mmol/g)。

[4486] 需要说明的是, 以同样方式合成的担载量不同的另一批也用于本实施例的肽合成。

[4487] 化合物aa139-树脂、(3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸-2-氯三苯甲酯树脂(Fmoc-D-3-MeAbu-O-Trt (2-Cl) resin)的合成

[4488]

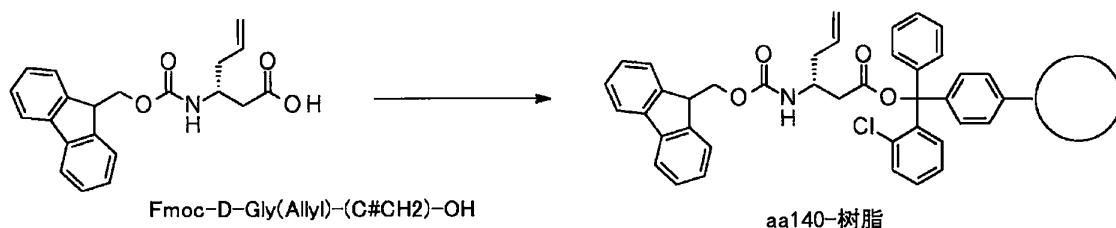


[4489] 使用购自商业供应商的 (3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸 (Fmoc-D-3-MeAbu-OH) (11.5g, 33.9mmol) 和 2-氯三苯甲基氯树脂 (1.69mmol/g, 100-200目, 1% DVB, 50g, 84.5mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa139-树脂、(3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸-2-氯三苯甲酯树脂 (Fmoc-D-3-MeAbu-O-Trt (2-Cl) resin) (58.95g, 负载量0.536mmol/g)。

[4490] 需要说明的是, 以同样方式合成的负载量不同的另一批也用于本实施例的肽合成。

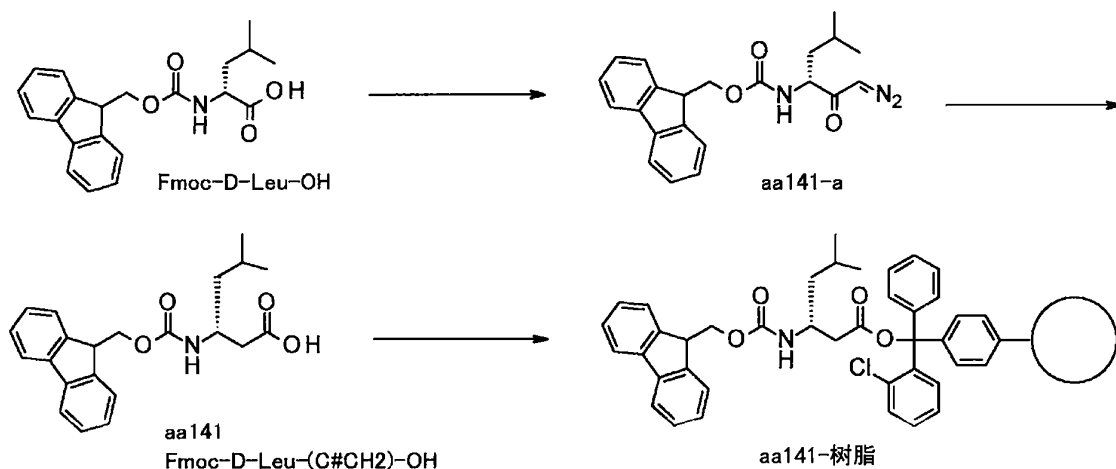
[4491] 化合物aa140-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-烯酸-2-氯三苯甲酯树脂 (Fmoc-D-Gly (Allyl) - (C#CH₂) - O-Trt (2-Cl) resin) 的合成

[4492]

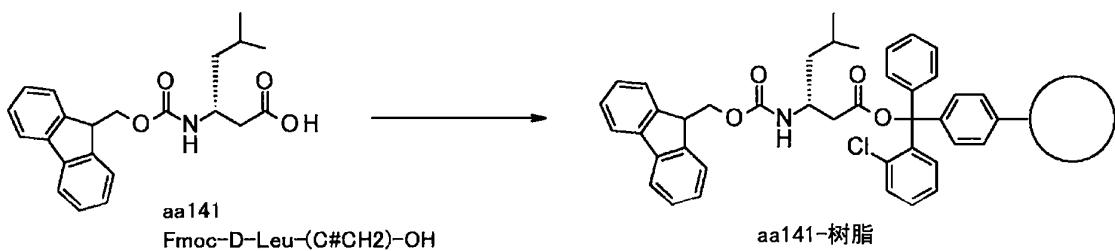


[4493] 使用购自商业供应商的 (3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-烯酸 (Fmoc-D-Gly (Allyl) - (C#CH₂) - OH) (1g, 2.85mmol) 和 2-氯三苯甲基氯树脂 (1.59mmol/g, 100-200目, 1% DVB, 3.58g, 5.69mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa140-树脂 ((3R)-3-(9H-芴-9-基甲氧基羰基氨基)己-5-烯酸-2-氯三苯甲酯树脂、Fmoc-D-Gly (Allyl) - (C#CH₂) - O-Trt (2-Cl) resin) (4.15g, 负载量0.420mmol/g)。

[4494] 化合物aa141-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸-2-氯三苯甲酯树脂 (Fmoc-D-Leu- (C#CH₂) - O-Trt (2-Cl) resin) 的合成



[4495]



[4496] 在0℃下, 将N-甲基-N-亚硝基乙酰胺 (CAS号7417-67-6) (3.5g, 29.5mmol) 加入到

乙醚(30mL)和氢氧化钾水溶液(50%, 12mL)的混合液中,搅拌30分钟。分离乙醚层,加入氢氧化钾颗粒,制备重氮甲烷溶液。进一步进行2次相同规模重氮甲烷溶液的制备,用于下一步反应。

[4497] 将Fmoc-D-Leu-OH(N-[(9H-芴-9-基甲氧基)羰基]-D-亮氨酸)(5g, 14.15mmol)溶解于甲苯中,在减压下蒸馏除去溶剂,将该操作进行3次。将残渣溶解于THF(40.4mL)中,在冰盐浴中进行冷却。分别向其中滴加N-甲基吗啉(2.022mL, 18.39mmol)、氯甲酸乙酯(1.766mL, 18.39mmol)。在冰盐浴中搅拌20分钟后,将制备好的重氮甲烷溶液(28.3mmol)在室温下以30分钟的间隔加入3次。用LC/MS确认反应进程,将反应液冷却至0℃并用乙醚稀释后,加入10%柠檬酸水溶液,用乙醚萃取。将有机层依次用饱和碳酸氢钠水溶液、饱和食盐水洗涤,用无水硫酸钠干燥,然后在减压下蒸馏除去溶剂。利用硅胶柱色谱(己烷/乙酸乙酯)纯化残渣,得到aa141-a(5g, 13.24mmol)。

[4498] LCMS (ESI) $m/z = 378.3$ (M+H) +

[4499] 保留时间:0.89分钟(分析条件SQDFA05)

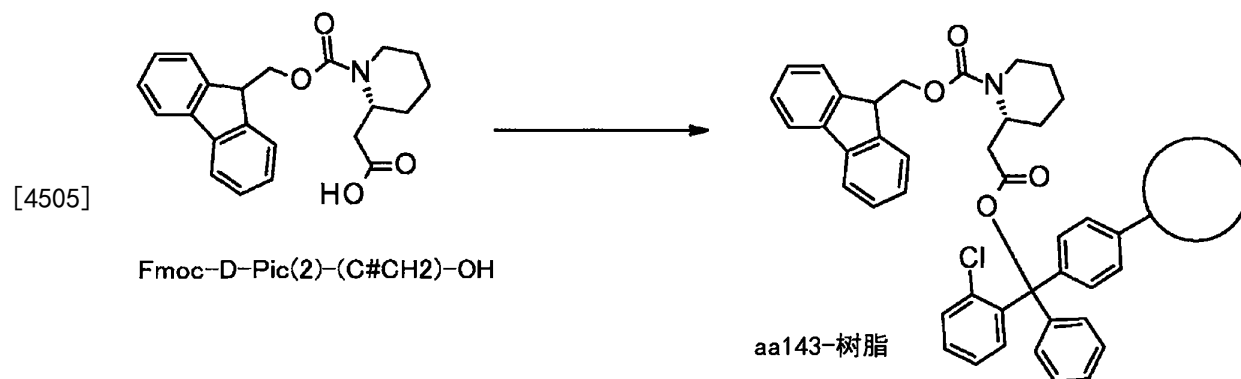
[4500] 将aa141-a(4g, 10.59mmol)的THF(42.4mL)溶液冷却至0℃,加入水(4.24mL)、三氟乙酸银(0.257g, 1.165mmol)、N-甲基吗啉(2.91mL, 26.5mmol),在室温下搅拌。用LC/MS确认反应完成后,将反应液冷却至0℃,用乙醚(40mL)稀释。向该混合液中加入柠檬酸水溶液(10%),用乙酸乙酯萃取。将有机层用饱和食盐水洗涤后,用无水硫酸钠干燥,在减压下蒸馏除去溶剂。将所得残渣用己烷/乙酸乙酯研磨,过滤收集固体,由此得到目标物aa141((3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸、Fmoc-D-Leu-(C#CH₂)-OH)(4g, 82%)。

[4501] LCMS (ESI) $m/z = 368.3$ (M+H) +

[4502] 保留时间:0.85分钟(分析条件SQDFA05)

[4503] 使用aa141((3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸、Fmoc-D-Leu-(C#CH₂)-OH)(1.045g, 2.85mmol)和2-氯三苯甲基氯树脂(1.59mmol/g, 100-200目, 1% DVB, 3.58g, 5.69mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa141-树脂((3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-甲基己酸-2-氯三苯甲酯树脂、Fmoc-D-Leu-(C#CH₂)-O-Trt(2-Cl)resin)(4.1g, 担载量0.349mmol/g)。

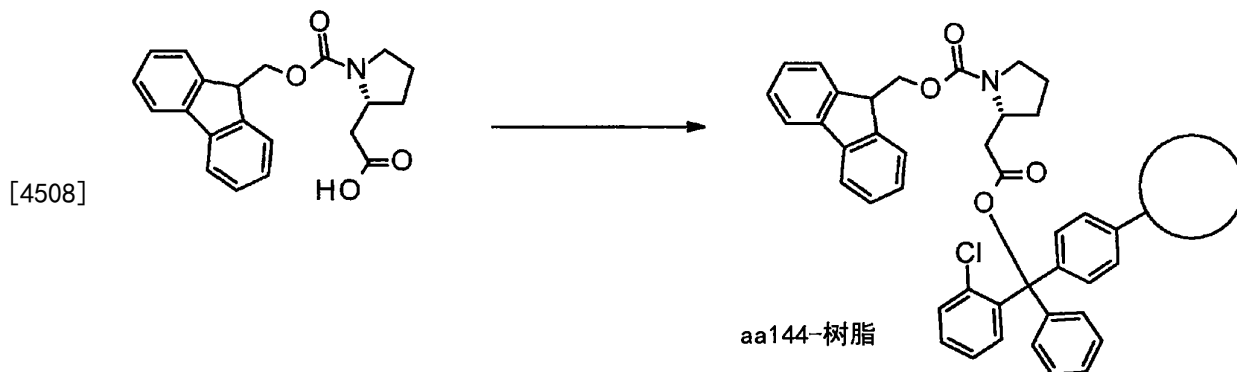
[4504] 化合物aa143-树脂、(R)-2-[1-(9H-芴-9-基甲氧基羰基)哌啶-2-基]乙酸-2-氯三苯甲酯树脂(Fmoc-D-Pic(2)-(C#CH₂)-O-Trt(2-Cl)resin)的合成



[4506] 使用购自商业供应商的(R)-2-[1-(9H-芴-9-基甲氧基羰基)哌啶-2-基]乙酸(Fmoc-D-Pic(2)-(C#CH₂)-OH)(1.01g, 2.76mmol)和2-氯三苯甲基氯树脂(1.6mmol/g, 100-

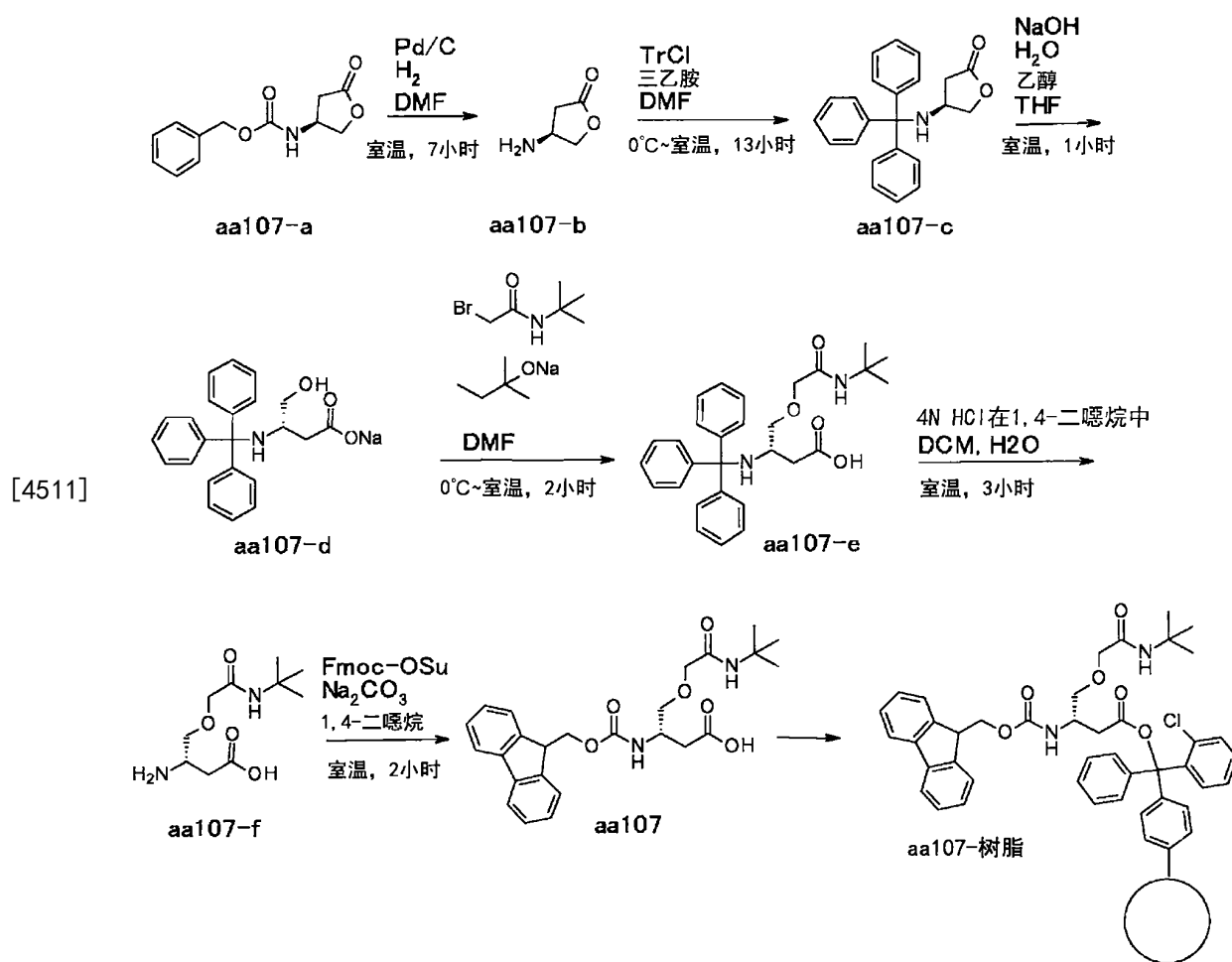
200目, 1%DVB, 3.84g, 6.14mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa143-树脂、(R)-2-[1-(9H-芴-9-基甲氧基羰基)哌啶-2-基]乙酸-2-氯三苯甲酯树脂(Fmoc-D-Pic(2)-(C#CH₂)-O-Trt(2-Cl)resin)(4.27g, 负载量0.347mmol/g)。

[4507] 化合物aa144-树脂、2-[(2R)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-基]乙酸-2-氯三苯甲酯树脂(Fmoc-D-Pro-(C#CH₂)-O-Trt(2-Cl)resin)的合成



[4509] 使用购自商业供应商的2-[(2R)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-基]乙酸(Fmoc-D-Pro-(C#CH₂)-OH)(1g, 2.85mmol)和2-氯三苯甲基氯树脂(1.6mmol/g, 100-200目, 1%DVB, 7g, 21.39mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa144-树脂(2-[(2R)-1-(9H-芴-9-基甲氧基羰基)吡咯烷-2-基]乙酸-2-氯三苯甲酯树脂、Fmoc-D-Pro-(C#CH₂)-O-Trt(2-Cl)resin)(7.19g, 负载量0.377mmol/g)。

[4510] 化合物aa107-树脂、(3S)-4-[2-(叔丁基氨基)-2-氧代乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂(Fmoc-D-Ser(NtBu-Aca)-(C#CH₂)-O-Trt(2-Cl)resin)的合成



[4512] 在氮气氛围下,向化合物aa107-a ((S)-β-(苄氧羰基氨基)-γ-丁内酯) (15g, 63.8mmol)、钯碳(5g, 30wt%)中加入DMF(180mL),置换为氢气气氛。将反应液在室温搅拌7小时,进行硅藻土过滤。用DMF(25mL)洗涤2次硅藻土,浓缩所得残渣,由此得到化合物aa107-b的粗产物(6.0g, 93%)。未经进一步的纯化地用于下一步反应中。

[4513] 将得到的化合物aa107-b(6.0g, 59.3mmol)溶解于DMF(170mL)中,冷却至0°C。向反应液中加入三乙胺(24.8mL, 178mmol),然后历时20分钟缓慢滴加溶解于DMF(130mL)中的三苯甲基氯(TrCl)(18.2g, 65.3mmol)。将反应液升温至室温,在室温下搅拌13小时。减压浓缩反应液,利用硅胶柱色谱(正己烷/乙酸乙酯)纯化所得残渣,得到化合物aa107-c(17g, 83%)。

[4514] LCMS (ESI) $m/z = 366 (M+Na)^+$

[4515] 保留时间:0.65分钟(分析条件SQDAA50)

[4516] 将得到的化合物aa107-c(20.8g, 60.6mmol)和氢氧化钠(2.66g, 66.6mmol)溶解于水/乙醇/THF溶液(1.14L, 1/5/5)中,在室温下搅拌1小时后,减压浓缩反应液,由此得到化合物aa107-d(23.9g, quant.)。

[4517] LCMS (ESI) $m/z = 384 (M+Na)^+$

[4518] 保留时间:0.47分钟(分析条件SQDAA50)

[4519] 将得到的化合物aa107-d(6g, 15.7mmol)溶解于DMF(50mL)中,冷却至0°C。向其中加入叔戊醇钠(46.9mmol)的甲苯溶液(14.8mL),升温至室温并搅拌30分钟。接着在0°C下加入溶解于DMF(15mL)中的2-溴-N-(叔丁基)乙酰胺(CAS号57120-58-8)(4.56g, 23.5mmol)。

将反应液升温至室温并搅拌5小时。减压浓缩反应液,利用反相柱色谱(10mM乙酸铵(AA)水溶液/甲醇)纯化所得残渣,得到化合物aa107-e(5.9g,79%)。

[4520] LCMS (ESI) $m/z=497$ (M+Na) +

[4521] 保留时间:0.60分钟(分析条件SQDAA50)

[4522] 将得到的化合物aa107-e(5.0g,10.5mmol)溶解于DCM/水(140mL,5/2)中,加入4N盐酸水溶液/1,4-二噁烷(42.1mL,169mmol)。将反应液在室温下搅拌1小时,然后加入水(40mL),用正己烷(100mL)洗涤2次。将得到的含有化合物aa107-f的水溶液直接用于下一步反应。

[4523] LCMS (ESI) $m/z=233$ (M+H) +

[4524] 保留时间:0.27分钟(分析条件SQDFA05)

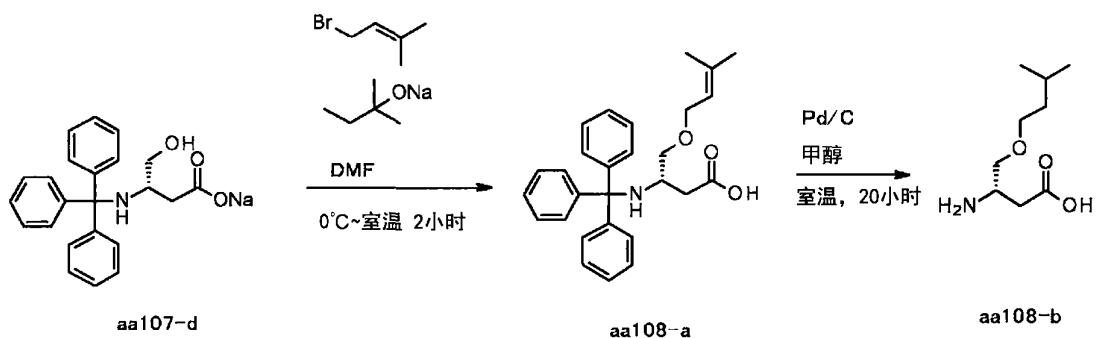
[4525] 向上述化合物aa107-f的水溶液(约90mL)中加入碳酸钠(27.8g,263mmol),并加入溶解于1,4-二噁烷(75mL)中的Fmoc-OSu(4.25g,12.6mmol)。将反应液在室温下搅拌2小时,然后加入TBME(300mL)和2N盐酸水(150mL)。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化减压浓缩有机层所得的残渣,得到化合物aa107((3S)-4-[2-(叔丁基氨基)-2-氧代乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸、Fmoc-D-Ser(NtBu-Aca)-(C#CH₂)-OH)(2.3g,2个工序48.2%)。

[4526] LCMS (ESI) $m/z=455$ (M+H) +

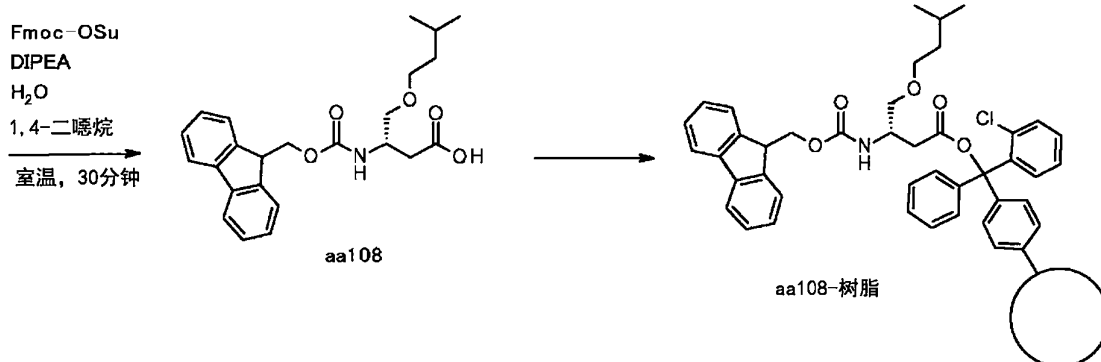
[4527] 保留时间:0.75分钟(分析条件SQDFA05)

[4528] 使用化合物aa107((3S)-4-[2-(叔丁基氨基)-2-氧代乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸、Fmoc-D-Ser(NtBu-Aca)-(C#CH₂)-OH)(1g,2.2mmol)和2-氯三苯甲基氯树脂(1.6mmol/g,100-200目,1%DVB,3.43g,5.5mmol),利用与化合物aa007-树脂的合成相同的方法,得到化合物aa107-树脂((3S)-4-[2-(叔丁基氨基)-2-氧代乙氧基]-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂、Fmoc-D-Ser(NtBu-Aca)-(C#CH₂)-O-Trt(2-Cl)resin)(4g,担载量0.279mmol/g)。

[4529] 化合物aa108-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-甲基丁氧基)丁酸-2-氯三苯甲酯树脂(Fmoc-D-Ser(iPen)-(C#CH₂)-O-Trt(2-Cl)resin)的合成



[4530]



[4531] 将化合物aa107-d (6g, 15.7mmol) 溶解于DMF (103mL) 中, 冷却至0℃。向反应液中加入叔戊醇钠 (46.9mmol) 的甲苯溶液 (14.1mL), 升温至室温并搅拌30分钟。然后在0℃加入1-溴-3-甲基-2-丁烯 (2.71mL, 23.5mmol)。将反应液升温至室温并搅拌4小时。进一步追加1-溴-3-甲基-2-丁烯 (0.9mL, 7.8mmol) 并搅拌4小时。然后, 将反应液减压浓缩, 利用反相色谱 (10mM乙酸铵水溶液/甲醇) 纯化得到的残渣, 得到化合物aa108-a (3.4g, 50.6%)。

[4532] LCMS (ESI) $m/z = 428$ (M-H) -

[4533] 保留时间: 0.59分钟 (分析条件SQDFA50)

[4534] 将化合物aa108-a (3.6g, 8.38mmol)、钯碳 (360mg, 10wt%) 和甲醇 (41.9mL) 的混合液, 在氢气气氛、室温下搅拌20小时。向反应液中加入甲酸和DMSO, 向己烷 (100mL) 进行倾析, 然后减压浓缩。利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化残渣, 得到化合物aa108-b (600mg, 38%)。

[4535] LCMS (ESI) $m/z = 190$ (M+H) +

[4536] 保留时间: 0.15分钟 (分析条件SQDFA50)

[4537] 将所得化合物aa108-b (600mg, 3.17mmol) 溶解于水 (3.6mL) 中, 加入DIPEA (2.49mL, 14.3mmol), 并将Fmoc-OSu (1.07g, 3.17mmol) 以1,4-二噁烷 (4.75mL) 溶液的形式加入。将反应液在室温下搅拌30分钟, 然后加入水 (4mL), 用己烷/醚 (3mL, 3/1) 萃取2次。向水层中加入硫酸氢钾 (KHSO_4) (1.62g, 14.3mmol), 用乙酸乙酯 (20mL) 萃取2次, 将合并的有机层用饱和食盐水/水 (1/1, 15mL) 洗涤2次, 用无水硫酸钠干燥后, 过滤, 将过滤得到的滤液减压浓缩, 得到化合物aa108 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-甲基丁氧基) 丁酸、Fmoc-D-Ser (iPen) - (C#CH₂) -OH (1.2g, 92%)。

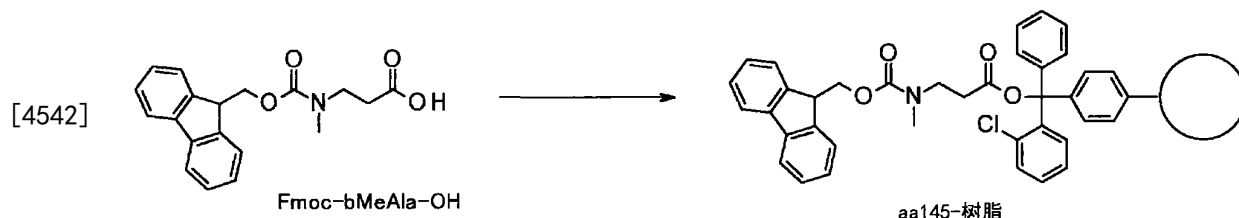
[4538] LCMS (ESI) $m/z = 412$ (M+H) +

[4539] 保留时间: 0.91分钟 (分析条件SQDFA05)

[4540] 使用化合物aa108 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-甲基丁氧基) 丁

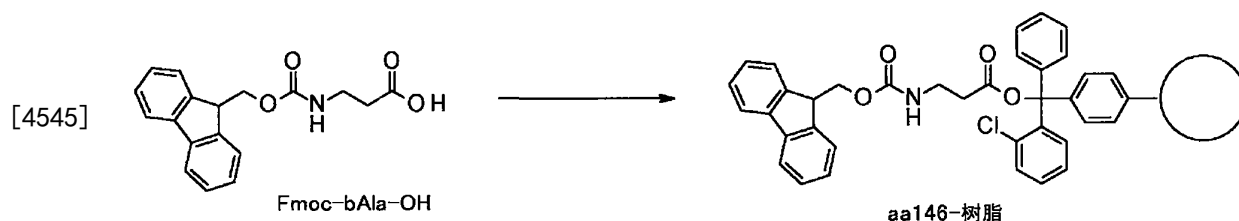
酸、Fmoc-D-Ser(iPen)-(C#CH₂)-OH (0.1g, 0.243mmol) 和2-氯三苯甲基氯树脂 (1.6mmol/g, 100-200目, 1%DVB, 0.380g, 0.61mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa108-树脂 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-(3-甲基丁氧基)丁酸-2-氯三苯甲酯树脂、Fmoc-D-Ser(iPen)-(C#CH₂)-O-Trt(2-Cl) resin) (434mg, 担载量 0.415mmol/g)。

[4541] 化合物aa145-树脂、3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸-2-氯三苯甲酯树脂 (Fmoc-bMeAla-O-Trt(2-Cl) resin) 的合成



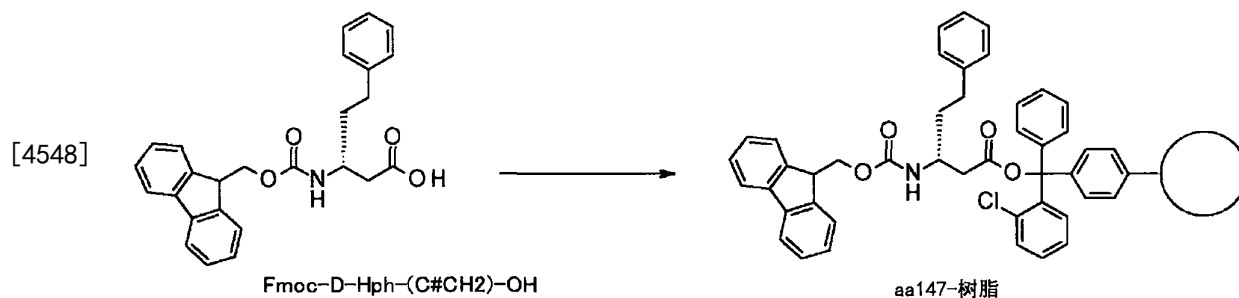
[4543] 使用购自商业供应商的3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸 (Fmoc-bMeAla-OH) (1g, 3.07mmol) 和2-氯三苯甲基氯树脂 (1.6mmol/g, 100-200目, 1%DVB, 3.84g, 6.15mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa145-树脂 (3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丙酸-2-氯三苯甲酯树脂、Fmoc-bMeAla-O-Trt(2-Cl) resin) (4.34g, 担载量 0.499mmol/g)。

[4544] 化合物aa146-树脂、3-(9H-芴-9-基甲氧基羰基氨基)丙酸-2-氯三苯甲酯树脂 (Fmoc-bAla-O-Trt(2-Cl) resin) 的合成



[4546] 使用购自商业供应商的3-(9H-芴-9-基甲氧基羰基氨基)丙酸 (Fmoc-bAla-OH) (8g, 25.7mmol) 和2-氯三苯甲基氯树脂 (1.6mmol/g, 100-200目, 1%DVB, 32.1g, 51.4mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa146-树脂 (3-(9H-芴-9-基甲氧基羰基氨基)丙酸-2-氯三苯甲酯树脂、Fmoc-bAla-O-Trt(2-Cl) resin) (37.86g, 担载量 0.528mmol/g)。

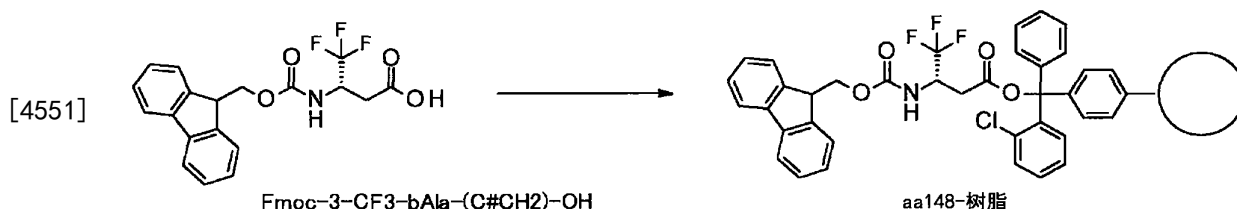
[4547] 化合物aa147-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-苯基戊酸-2-氯三苯甲酯树脂 (Fmoc-D-Hph-(C#CH₂)-O-Trt(2-Cl) resin) 的合成



[4549] 使用购自商业供应商的(3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-苯基戊酸 (Fmoc-D-Hph-(C#CH₂)-OH) (1g, 2.41mmol) 和2-氯三苯甲基氯树脂 (1.6mmol/g, 100-200目,

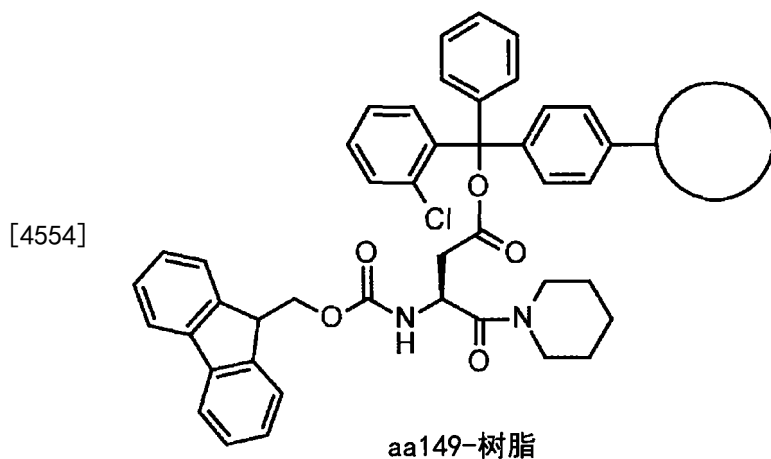
1%DVB, 3.03g, 4.82mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa147-树脂((3R)-3-(9H-芴-9-基甲氧基羰基氨基)-5-苯基戊酸-2-氯三苯甲酯树脂、Fmoc-D-Hph-(C#CH₂)-O-Trt(2-Cl) resin)(3.61g, 担载量0.415mmol/g)。

[4550] 化合物aa148-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4,4,4-三氟丁酸-2-氯三苯甲酯树脂(Fmoc-3-CF₃-bAla-(C#CH₂)-O-Trt(2-Cl) resin)的合成



[4552] 使用购自商业供应商的(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4,4,4-三氟丁酸(Fmoc-3-CF₃-bAla-(C#CH₂)-OH)(0.569mg, 1.5mmol)和2-氯三苯甲基氯树脂(1.59mmol/g, 100-200目, 1%DVB, 1.89g, 3mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa148-树脂(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4,4,4-三氟丁酸-2-氯三苯甲酯树脂(Fmoc-3-CF₃-bAla-(C#CH₂)-O-Trt(2-Cl) resin)(2.19g, 担载量0.399mmol/g)。

[4553] 化合物aa149-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl) resin)-pip)的合成

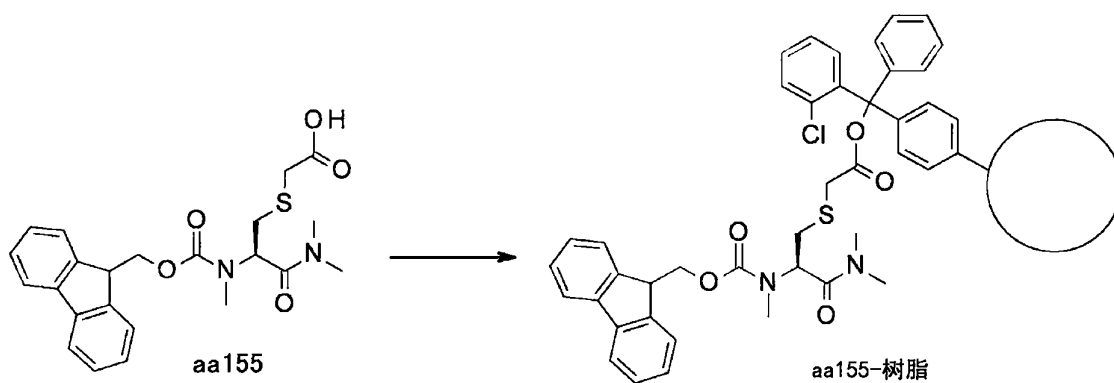


[4555] 利用W02013/100132或W02018/225864记载的方法合成化合物aa149-树脂、(3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂(Fmoc-Asp(O-Trt(2-Cl) resin)-pip)。

[4556] 化合物aa155-树脂、2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸-2-氯三苯甲酯树脂的合成

[4557] 氨基酸向树脂的担载是按照以下路线进行的。

[4558]



[4559] 使用aa155 (2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸) (0.46g, 1.04mmol) 和2-氯三苯甲基氯树脂 (1.6mmol/g, 100-200目, 1%DVB, 1.3g, 2.08mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物aa155-树脂、2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸-2-氯三苯甲酯树脂 (1.54g, 负载量0.336mmol/g)。

[4560] 1-3. 利用自动合成仪进行的肽固相合成

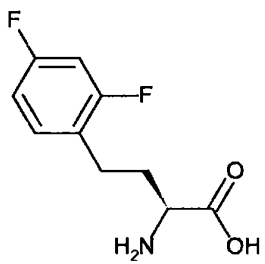
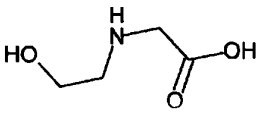
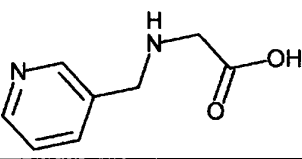
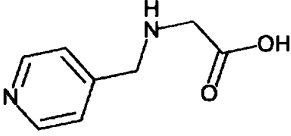
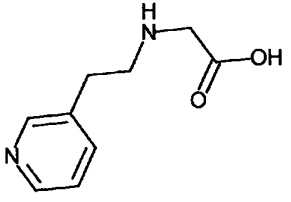
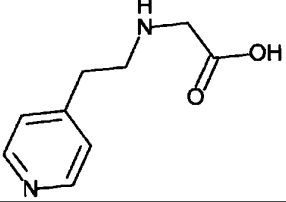
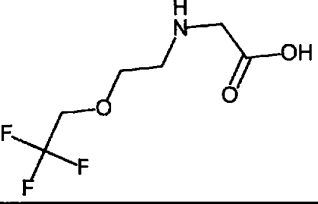
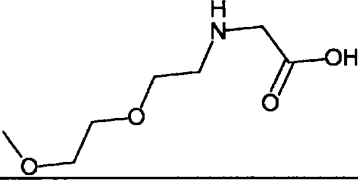
[4561] 按照W02013/100132或W02018/225864记载的方法合成了环状肽化合物(化合物1~化合物762、化合物764~化合物845、化合物847~化合物1027、化合物1029~化合物1146、化合物1148~化合物1410、化合物1412~化合物2020、化合物2111、化合物2143~化合物2151、化合物2172~化合物2179) (表24)。使用肽合成仪 (Multi pep RS; Intavis公司制), 利用以下更详细记载的Fmoc法进行肽合成, 操作的详细顺序是根据合成仪所附的手册进行。需要说明的是, 表24中记载的构成环状肽的各氨基酸残基的正规名称、结构、简称的关系可由上述表2~表7和下表8充分得到理解。

[4562] [表8]

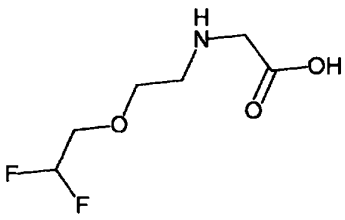
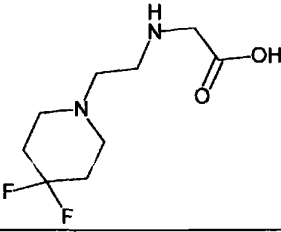
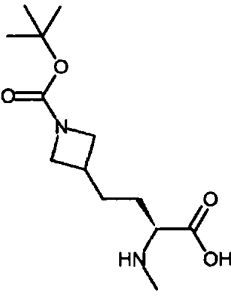
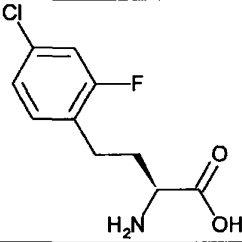
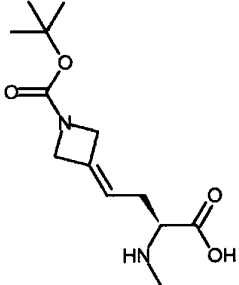
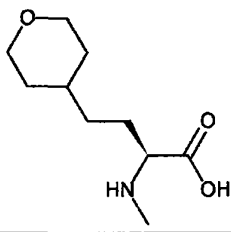
[4563]

简称	氨基酸结构式	名称
MeGln(Aze-3-F2)		(2S)-5-(3,3-二氟氮杂环丁烷-1-基)-2-(甲基氨基)-5-氧代戊酸
(MeOMeallyl)Gly		2-[[(E)-4-甲氧基丁-2-烯基]氨基]乙酸
(DMAOEt)Gly		2-[2-[2-(二甲氨基)-2-氧代-乙氧基]乙基氨基]乙酸
(HOTBuOEt)Gly		2-[2-(2-羟基-2-甲基-丙氧基)乙基氨基]乙酸
(HOTBuallyl)Gly		2-[[(E)-5-羟基-5-甲基-己-2-烯基]氨基]乙酸
(Me2NCONPr)Gly		2-[[4-(二甲氨基)-4-氧代丁基]氨基]乙酸
(5-OH-nPent)Gly		2-(5-羟基戊基氨基)乙酸
(HOEtallyl)Gly		2-[[(E)-5-羟基戊-2-烯基]氨基]乙酸
(DMFallyl)Gly		2-[[(E)-4-(二甲氨基)-4-氧代-丁-2-烯基]氨基]乙酸
(HOiPrallyl)Gly		2-[[(E)-4-羟基-4-甲基-戊-2-烯基]氨基]乙酸

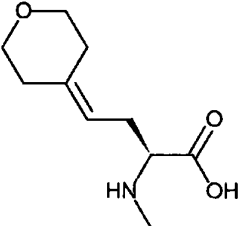
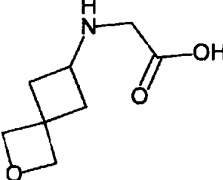
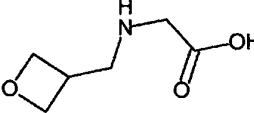
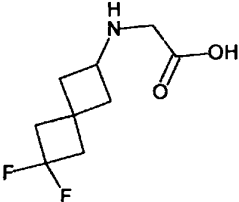
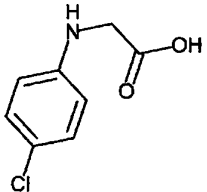
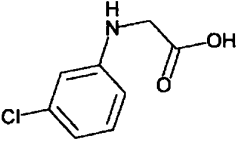
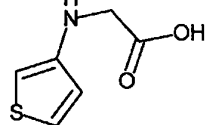
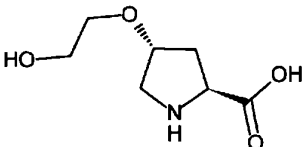
[4564]

Hph(24-F2)		(2S)-2-氨基-4-(2,4-二氟苯基)丁酸
(HOEt)Gly		2-(2-羟乙基氨基)乙酸
(3-pyr-Me)Gly		2-(3-吡啶基甲基氨基)乙酸
(4-pyr-Me)Gly		2-(4-吡啶基甲基氨基)乙酸
(3-pyr-Et)Gly		2-[2-(3-吡啶基)乙基氨基]乙酸
(4-pyr-Et)Gly		2-[2-(4-吡啶基)乙基氨基]乙酸
(Et(2-F3)OEt)Gly		2-[2-(2,2,2-三氟乙氧基)乙基氨基]乙酸
(MeOEtOEt)Gly		2-[2-(2-甲氧基乙氧基)乙基氨基]乙酸

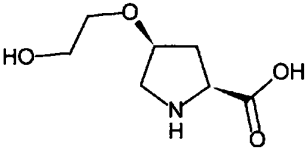
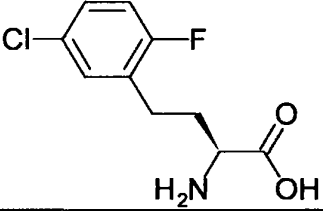
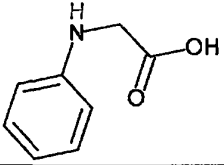
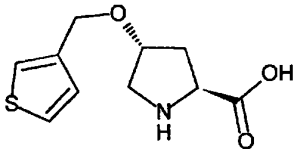
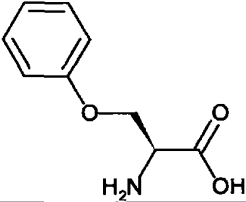
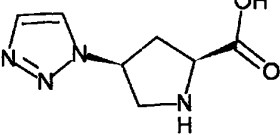
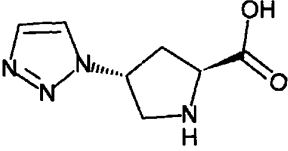
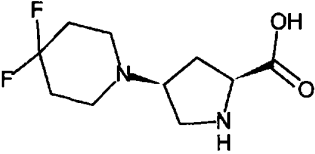
[4565]

(Et(2-F ₂)OEt)Gly		2-[2-(2,2-二氟乙氧基)乙基氨基]乙酸
(pip(4-F ₂)Et)Gly		2-[2-(4,4-二氟-1-哌啶基)乙基氨基]乙酸
MeAbu(BocAze)		(2S)-4-(1-叔丁氧基羰基氮杂环丁烷-3-基)-2-(甲基氨基)丁酸
Hph(2-F-4-Cl)		(2S)-2-氨基-4-(4-氯-2-氟-苯基)丁酸
MeAbu(BocAzedene)		(2S)-4-(1-叔丁氧基羰基氮杂环丁烷-3-亚基)-2-(甲基氨基)丁酸
MeAbu(THP)		(2S)-2-(甲基氨基)-4-四氢吡喃-4-基-丁酸

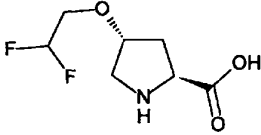
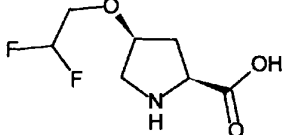
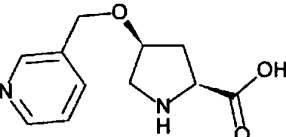
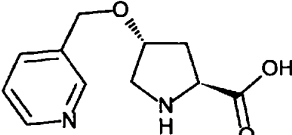
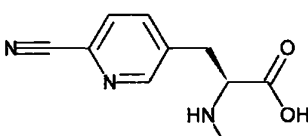
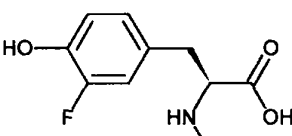
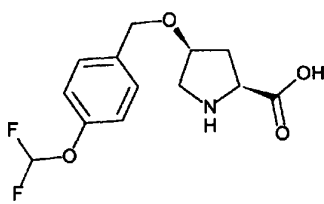
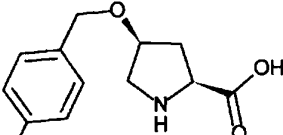
[4566]

MeAbu(THPdene)		(2S)-2-(甲基氨基)-4-四氢吡喃-4-亚基-丁酸
(OxecBu)Gly		2-(2-氧杂螺[3.3]庚烷-6-基氨基)乙酸
(OxeMe)Gly		2-(氧杂环丁烷-3-基甲基氨基)乙酸
(F2cBucBu)Gly		2-[(2,2-二氟螺[3.3]庚-6-基)氨基]乙酸
(Ph-4-Cl)Gly		2-(4-氯苯胺)乙酸
(Ph-3-Cl)Gly		2-(3-氯苯胺)乙酸
(3-Thienyl)Gly		2-(3-噻吩基氨基)乙酸
Hyp(2-EtOH)		(2S,4R)-4-(2-羟基乙氧基)吡咯烷-2-甲酸

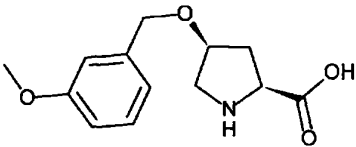
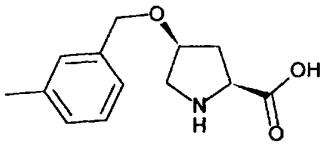
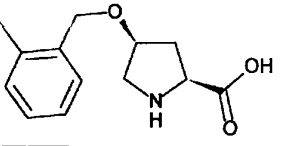
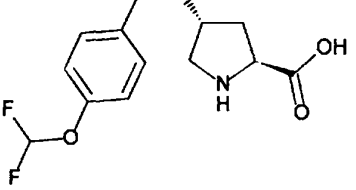
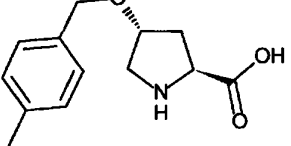
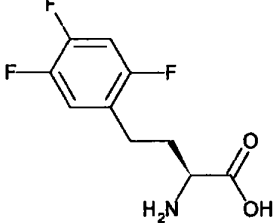
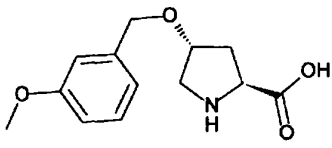
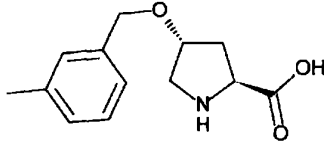
[4567]

cisHyp(2-EtOH)		(2S, 4S)-4-(2-羟基乙氧基)吡咯烷-2-甲酸
Hph(2-F-5-Cl)		(2S)-2-氨基-4-(5-氯-2-氟苯基)丁酸
PhGly		2-苯胺基乙酸
Hyp(3-thie-Me)		(2S, 4R)-4-(3-噻吩基甲氧基)吡咯烷-2-甲酸
Ser(Ph)		(2S)-2-氨基-3-苯氧基-丙酸
Pro(4S-Tri)		(2S, 4S)-4-(三唑-1-基)吡咯烷-2-甲酸
Pro(4R-Tri)		(2S, 4R)-4-(三唑-1-基)吡咯烷-2-甲酸
cisPro(4-pip-4-F2)		(2S, 4S)-4-(4,4-二氟-1-哌啶基)吡咯烷-2-甲酸

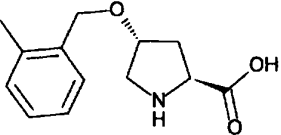
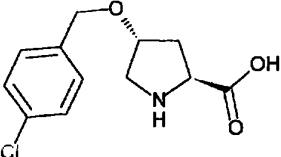
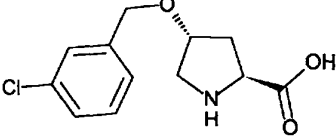
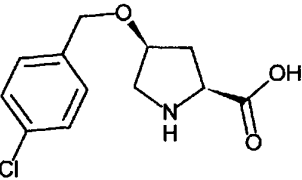
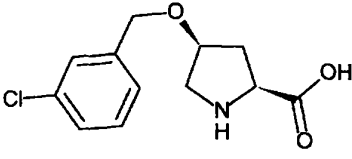
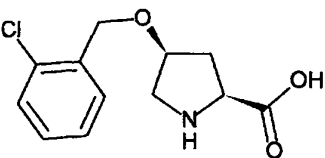
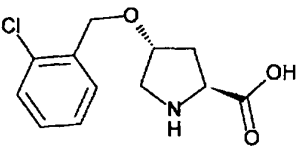
[4568]

Hyp(Et(2-F ₂))		(2S, 4R)-4-(2, 2-二氟乙氧基)吡咯烷-2-甲酸
cisHyp(Et(2-F ₂))		(2S, 4S)-4-(2, 2-二氟乙氧基)吡咯烷-2-甲酸
cisHyp(3-Me-Pyr)		(2S, 4S)-4-(3-吡啶基甲氧基)吡咯烷-2-甲酸
Hyp(3-Me-Pyr)		(2S, 4R)-4-(3-吡啶基甲氧基)吡咯烷-2-甲酸
MeAla(3-Pyr-4-CN)		(2S)-3-(6-氰基-3-吡啶基)-2-(甲基氨基)丙酸
MeTyr(3-F)		(2S)-3-(3-氟-4-羟基苯基)-2-(甲基氨基)丙酸
cisHyp(Bzl(4-OCHF ₂))		(2S, 4S)-4-[[4-(二氟甲氧基)苯基]甲氧基]吡咯烷-2-甲酸
cisHyp(Bzl(4-Me))		(2S, 4S)-4-(对甲基苯基甲氧基)吡咯烷-2-甲酸

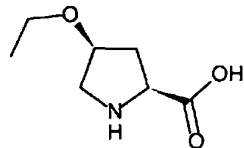
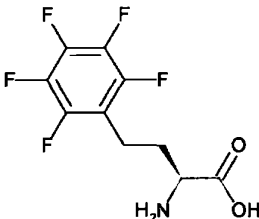
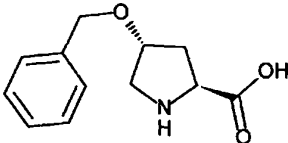
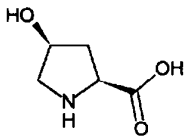
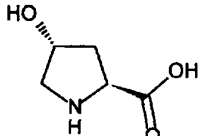
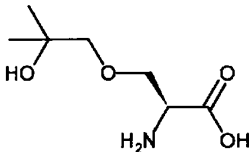
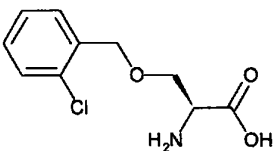
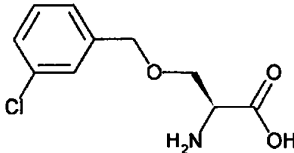
[4569]

cisHyp(Bzl(3-OMe))		(2S, 4S)-4-[(3-甲氧基苯基)甲氧基]吡咯烷-2-甲酸
cisHyp(Bzl(3-Me))		(2S, 4S)-4-(3-甲基苯基甲氧基)吡咯烷-2-甲酸
cisHyp(Bzl(2-Me))		(2S, 4S)-4-(2-甲基苯基甲氧基)吡咯烷-2-甲酸
Hyp(Bzl(4-OCHF2))		(2S, 4R)-4-[[4-(二氟甲氧基)苯基]甲氧基]吡咯烷-2-甲酸
Hyp(Bzl(4-Me))		(2S, 4R)-4-(对甲基苯基甲氧基)吡咯烷-2-甲酸
Hph(245-F3)		(2S)-2-氨基-4-(2, 4, 5-三氟苯基)丁酸
Hyp(Bzl(3-OMe))		(2S, 4R)-4-[(3-甲氧基苯基)甲氧基]吡咯烷-2-甲酸
Hyp(Bzl(3-Me))		(2S, 4R)-4-(3-甲基苯基甲氧基)吡咯烷-2-甲酸

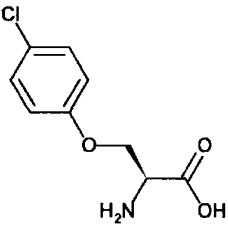
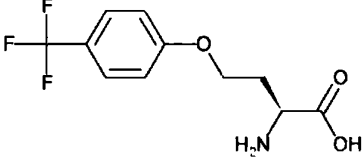
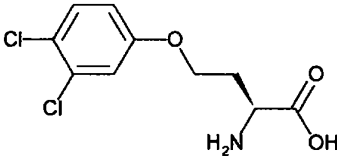
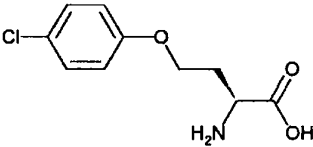
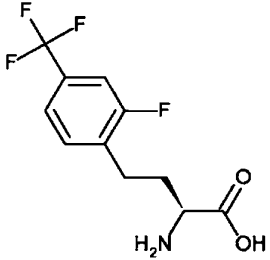
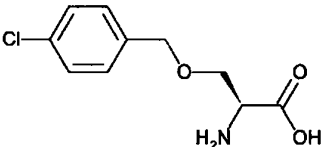
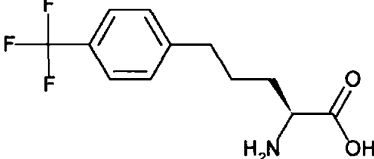
[4570]

Hyp(Bzl(2-Me))		(2S, 4R)-4-(2-甲基苄氧基)吡咯烷-2-甲酸
Hyp(Bzl(4-Cl))		(2S, 4R)-4-[(4-氯苯基)甲氧基]吡咯烷-2-甲酸
Hyp(Bzl(3-Cl))		(2S, 4R)-4-[(3-氯苯基)甲氧基]吡咯烷-2-甲酸
cisHyp(Bzl(4-Cl))		(2S, 4S)-4-[(4-氯苯基)甲氧基]吡咯烷-2-甲酸
cisHyp(Bzl(3-Cl))		(2S, 4S)-4-[(3-氯苯基)甲氧基]吡咯烷-2-甲酸
cisHyp(Bzl(2-Cl))		(2S, 4S)-4-[(2-氯苯基)甲氧基]吡咯烷-2-甲酸
Hyp(Bzl(2-Cl))		(2S, 4R)-4-[(2-氯苯基)甲氧基]吡咯烷-2-甲酸

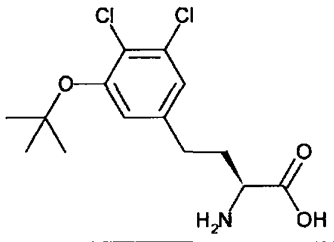
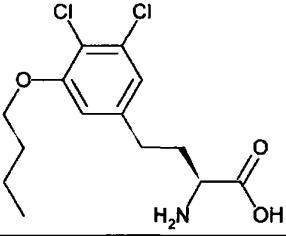
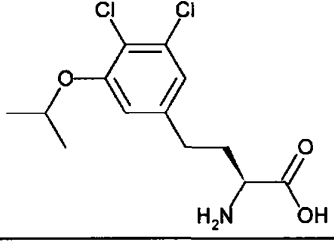
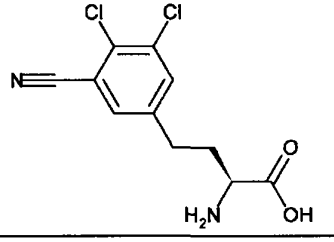
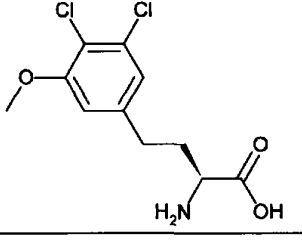
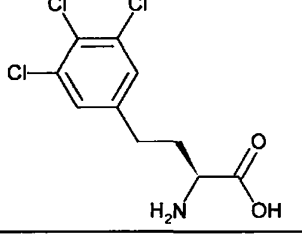
[4571]

cisHyp(Et)		(2S, 4S)-4-乙氧基吡咯烷-2-甲酸
Hph(F5)		(2S)-2-氨基-4-(2,3,4,5,6-五氟苯基)丁酸
Hyp(Bzl)		(2S, 4R)-4-苄氧基吡咯烷-2-甲酸
cisHyp		(2S, 4R)-4-羟基吡咯烷-2-甲酸
Hyp		(2S, 4R)-4-羟基吡咯烷-2-甲酸
Ser(tBuOH)		(2S)-2-氨基-3-(2-羟基-2-甲基-丙氧基)丙酸
Ser(Bn-2-Cl)		(2S)-2-氨基-3-[(2-氯苯基)甲氧基]丙酸
Ser(Bn-3-Cl)		(2S)-2-氨基-3-[(3-氯苯基)甲氧基]丙酸

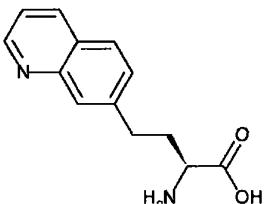
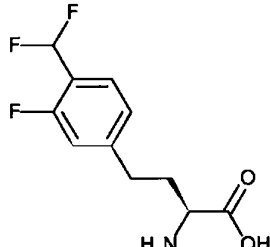
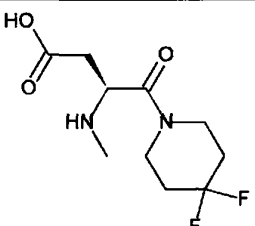
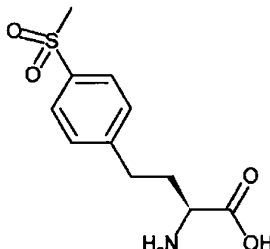
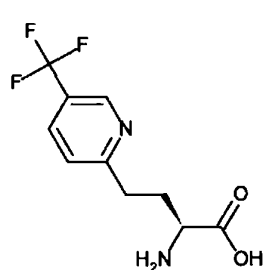
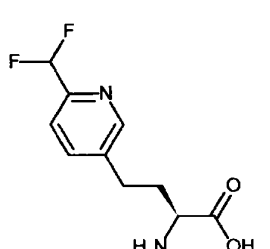
[4572]

Ser(Ph-4-Cl)		(2S)-2-氨基-3-(4-氯苯氧基)丙酸
Hse(Ph-4-CF ₃)		(2S)-2-氨基-4-[4-(三氟甲基)苯氧基]丁酸
Hse(Ph-3,4-Cl ₂)		(2S)-2-氨基-4-(3,4-二氯苯氧基)丁酸
Hse(Ph-4-Cl)		(2S)-2-氨基-4-(4-氯苯氧基)丁酸
Hph(4-CF ₃ -2-F)		(2S)-2-氨基-4-[2-氟-4-(三氟甲基)苯基]丁酸
Ser(Bn-4-Cl)		(2S)-2-氨基-3-[4-氯苯基]甲氧基丙酸
Phe3(4-CF ₃)		(2S)-2-氨基-5-[4-(三氟甲基)苯基]戊酸

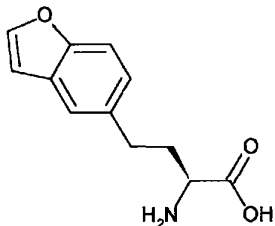
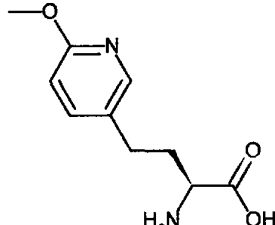
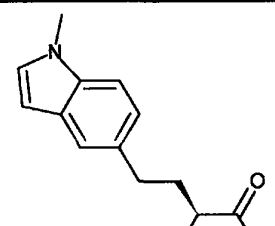
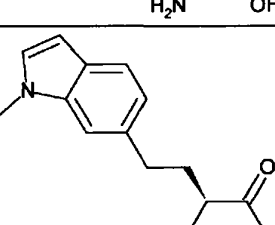
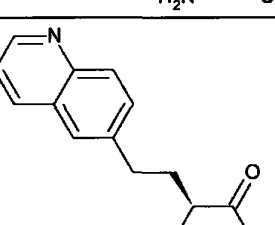
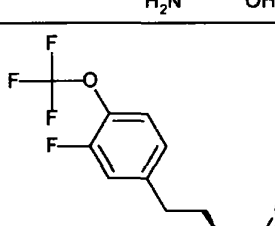
[4573]

Hph(34-Cl ₂ -5-OtBu)		(2S)-2-氨基-4-(3-叔丁氧基-4,5-二氯苯基)丁酸
Hph(34-Cl ₂ -5-OnBu)		(2S)-2-氨基-4-(3-丁氧基-4,5-二氯苯基)丁酸
Hph(34-Cl ₂ -5-OiPr)		(2S)-2-氨基-4-(3,4-二氯-5-异丙氧基苯基)丁酸
Hph(34-Cl ₂ -5-CN)		(2S)-2-氨基-4-(3,4-二氯-5-氰基苯基)丁酸
Hph(34-Cl ₂ -5-OMe)		(2S)-2-氨基-4-(3,4-二氯-5-甲氧基苯基)丁酸
Hph(345-Cl ₃)		(2S)-2-氨基-4-(3,4,5-三氯苯基)丁酸

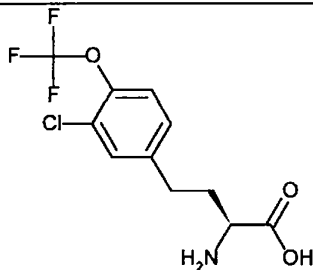
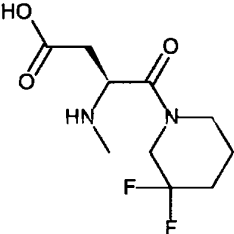
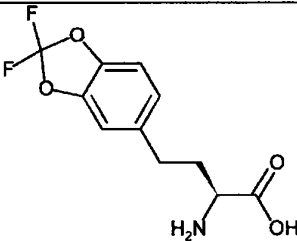
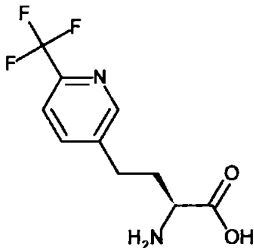
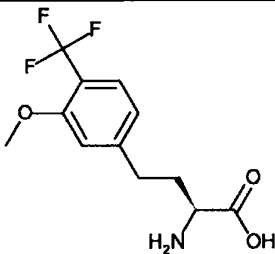
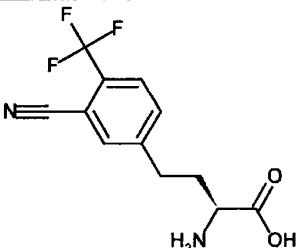
[4574]

Abu(7-Quino)		(2S)-2-氨基-4-(7-喹啉基)丁酸
Hph(3-F-4-CHF2)		(2S)-2-氨基-4-[4-(二氟甲基)-3-氟苯基]丙酸
MeAsp-pip(4-F2)		(3S)-4-(4,4-二氟-1-哌啶基)-3-(甲基氨基)-4-氧代丁酸
Hph(4-SO2Me)		(2S)-2-氨基-4-(4-甲基磺酰基苯基)丁酸
Abu(2-Pyr-4-CF3)		(2S)-2-氨基-4-[5-(三氟甲基)-2-吡啶基]丁酸
Abu(3-Pyr-4-CHF2)		(2S)-2-氨基-4-[6-(二氟甲基)-3-吡啶基]丁酸

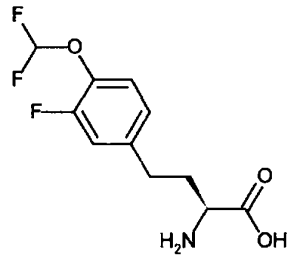
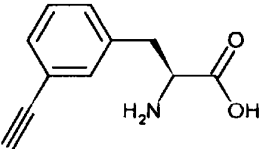
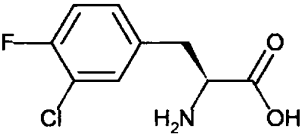
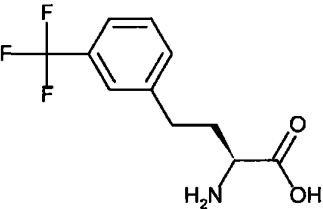
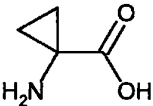
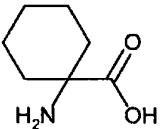
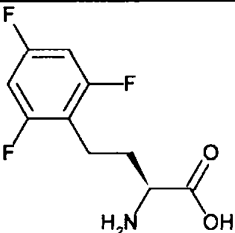
[4575]

Abu(5-Bzfr)		(2S)-2-氨基-4-(苯并呋喃-5-基)丁酸
Abu(3-Pyr-4-OMe)		(2S)-2-氨基-4-(6-甲氧基-3-吡啶基)丁酸
Abu(1-Me-5-Indo)		(2S)-2-氨基-4-(1-甲基吲哚-5-基)丁酸
Abu(1-Me-6-Indo)		(2S)-2-氨基-4-(1-甲基吲哚-6-基)丁酸
Abu(6-Quino)		(2S)-2-氨基-4-(6-喹啉基)丁酸
Hph(3-F-4-OCF3)		(2S)-2-氨基-4-[3-氟-4-(三氟甲氧基)苯基]丁酸

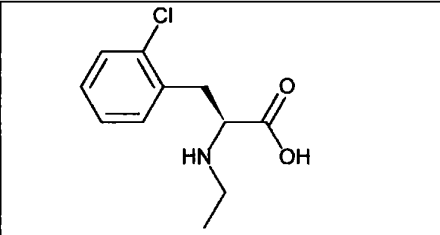
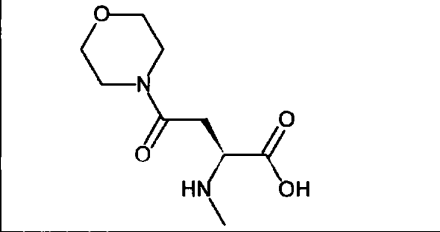
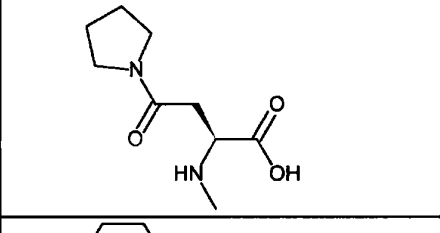
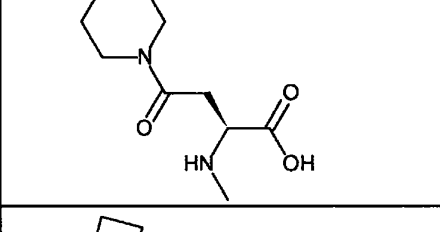
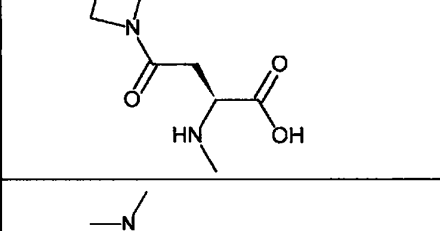
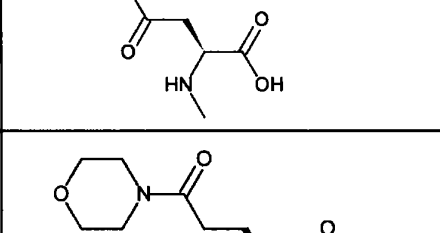
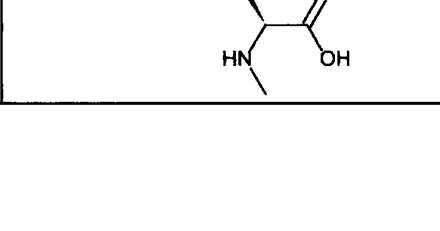
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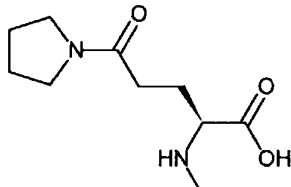
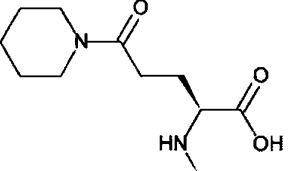
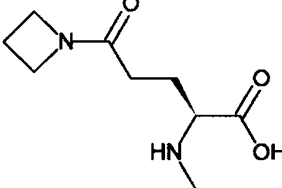
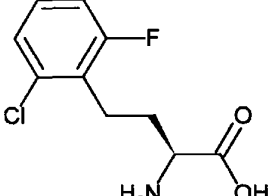
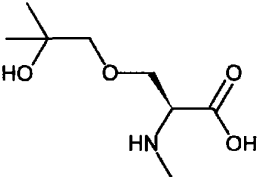
Hph(3-Cl-4-OCF ₃)		(2S)-2-氨基-4-[3-氯-4-(三氟甲氧基)苯基]丁酸
MeAsp-pip(3-F ₂)		(3S)-4-(3,3-二氟-1-哌啶基)-3-(甲基氨基)-4-氧代丁酸
Abu(3,4-Cate(CF ₂))		(2S)-2-氨基-4-(2,2-二氟-1,3-苯并间二氧杂环戊烯-5-基)丁酸
Abu(3-Pyr-4-CF ₃)		(2S)-2-氨基-4-[6-(三氟甲基)-3-吡啶基]丁酸
Hph(3-OMe-4-CF ₃)		(2S)-2-氨基-4-[3-甲氧基-4-(三氟甲基)苯基]丁酸
Hph(3-CN-4-CF ₃)		(2S)-2-氨基-4-[3-氰基-4-(三氟甲基)苯基]丁酸

[4577]

Hph(3-F-4-OCHF ₂)		(2S)-2-氨基-4-[4-(二氟甲氧基)-3-氟-苯基]丁酸
Phe(3-C#C)		(2S)-2-氨基-3-(3-乙炔基苯基)丙酸
Phe(3-Cl-4-F)		(2S)-2-氨基-3-(3-氯-4-氟苯基)丙酸
Hph(3-CF ₃)		(2S)-2-氨基-4-[3-(三氟甲基)苯基]丁酸
1-ACPrC		1-氨基环丙烷甲酸
cHex		1-氨基环己烷甲酸
Hph(246-F ₃)		(2S)-2-氨基-4-(2,4,6-三氟苯基)丁酸

[4578]

EtPhe(2-Cl)		(2S)-3-(2-氯苯基)-2-(乙基氨基)丙酸
MeAsn(mor)		(2S)-2-(甲基氨基)-4-吗啉代-4-氧代丁酸
MeAsn(pyrro)		(2S)-2-(甲基氨基)-4-氧代-4-吡咯烷-1-基丁酸
MeAsn(pip)		(2S)-2-(甲基氨基)-4-氧代-4-(1-哌啶基)丁酸
MeAsn(Aze)		(2S)-4-(氮杂环丁烷-1-基)-2-(甲基氨基)-4-氧代丁酸
MeAsn(Me2)		(2S)-4-(二甲基氨基)-2-(甲基氨基)-4-氧代丁酸
MeGln(mor)		(2S)-2-(甲基氨基)-5-吗啉代-5-氧代戊酸

		(2S)-2-(甲基氨基)-5-氧代-5-吡咯烷-1-基戊酸
		(2S)-2-(甲基氨基)-5-氧代-5-(1-哌啶基)戊酸
[4579]		(2S)-5-(氮杂环丁烷-1-基)-2-(甲基氨基)-5-氧代戊酸
		(2S)-2-氨基-4-(2-氯-6-氟苯基)丁酸
		(2S)-3-(2-羟基-2-甲基丙氧基)-2-(甲基氨基)丙酸

[4580] 关于基于Fmoc法的肽合成法(基本肽合成法),在以下1-3-1~1-3-5中进行详细说明。

[4581] 1-3-1. 基于Fmoc法的从氨基酸N末端的肽延伸反应

[4582] 使用Intavis公司制备的肽合成仪(Multi pep RS或Multi pep RSi),通过使用Fmoc保护氨基酸的固相合成法合成肽化合物。关于操作的详细顺序,根据合成仪所附的手册进行。

[4583] 将构成目标肽的Fmoc保护氨基酸(0.3-0.6mol/L)和作为羧基活化剂的HOAt、oxyma或HOOBt(0.375mol/L)溶解于NMP或NMP/DMF(1/1)中,由此制备溶液1。在Fmoc保护氨基酸难溶于上述溶剂中的情况下,按照达到20%~30%(v/v)的方式加入DMSO来制备溶液1。在使用例如Fmoc-MeSer(tBuOTHP)-OH、Fmoc-Ser(tBuOTHP)-OH、Fmoc-MeSer(THP)-OH、Fmoc-Thr(THP)-OH、Fmoc-Ser(THP)-OH、Fmoc-cisHyp(THP)-OH(化合物aa101)、或Fmoc-Hyp(THP)-OH(化合物aa102)作为在侧链具有THP保护基的Fmoc保护氨基酸的情况下,使用oxyma作为羧基的活化剂来制备溶液1,并向其中添加分子筛4A 1/8(和光纯药工业)或分子筛4A 1/16(和光纯药工业)来用于肽合成。将N,N'-二异丙基碳二亚胺(DIC)(10%v/v)和N,N-二甲基甲酰胺(DMF)进行混合,制备溶液2。

[4584] 将下述2-氯三苯甲酯树脂(100mg)加入到固相反应容器中,并将固相反应容器设

置于肽合成仪中,其中所述2-氯三苯甲酯树脂与N末端被Fmoc基保护的天冬氨酸的侧链羧酸部位键合、或者与N末端被Fmoc基保护的氨基酸的主链羧酸部位键合。通过向所述树脂(100mg)中加入二氯甲烷(DCM)(0.8mL)并静置1小时而使树脂溶胀。之后,将溶液从玻璃料(frit)中排出。将溶液1和溶液2设置于肽合成仪中,开始肽合成仪的自动合成。

[4585] 向含有树脂的固相反应容器中添加二氮杂双环十一碳烯(DBU)的DMF(2%v/v, 0.7mL)溶液,在室温下进行N末端Fmoc基的脱保护。对于第1个残基的脱保护,反应进行4.5分钟,而对于第2个残基以及之后残基的脱保护,反应进行10分钟,然后从玻璃料中排出溶液。向其中加入DMF(0.7mL),静置5分钟后,从玻璃料中排出溶液。通过将该树脂洗涤工序再重复3次,得到键合于树脂上的氨基酸或肽的N末端的Fmoc基被去除而成为氨基的树脂。

[4586] 接着,将溶液1(0.3mL)和溶液2(0.36mL)在合成器的混合瓶中混合之后,添加到上述脱保护处理后的树脂中,将固相反应容器升温至40℃。对于不容易延伸的序列等的情况,根据需要加热至60℃。树脂上的氨基与Fmoc保护氨基酸的缩合反应进行2.5小时。对于不容易延伸的序列等的情况,根据需要反应进行20小时。反应后,将溶液从玻璃料中排出。在延伸效率低的情况下,将该Fmoc保护氨基酸的缩合反应再重复进行1次或2次。接着将树脂用DMF(0.7mL)洗涤3次。将该Fmoc基的脱保护反应之后的Fmoc氨基酸缩合反应作为一个循环,通过重复该循环,而使肽在树脂表面上延伸。在肽延伸完成后,将二氮杂双环十一碳烯(DBU)的DMF溶液(2%v/v, 0.7mL)添加到树脂中,使其反应15分钟以进行Fmoc的脱保护反应,然后从玻璃料中排出溶液。将所得树脂用DMF(0.7mL)洗涤4次,用DCM(0.7mL)洗涤4次。

[4587] 1-3-2. 从树脂切割延伸后的肽

[4588] 向通过W02013/100132、W02018/225864记载的方法或通过上述方法获得的树脂中加入含有0.75%(v/v) DIPEA的2,2,2-三氟乙醇(TFE)/DCM(1/1,v/v,2mL),使之在室温下反应2小时,进行从树脂上切割肽链的反应。反应后,从玻璃料中回收管内的溶液。向剩余树脂中加入2,2,2-三氟乙醇(TFE)/DCM(1/1,v/v,1mL)并从玻璃料中回收溶液,将该操作进行2次。将得到的所有切割溶液进行混合,并向其中混合DMF(4mL)或1,2-二氯乙烷(4mL)之后,利用Genevac公司制备的高处理量(high throughput)离心蒸发器(HT-12)在减压下蒸馏除去溶剂。

[4589] 1-3-3. 切割出的肽的环化方法

[4590] 将通过上述方法获得的残渣溶解于DMF(4mL)和DCM(4mL)的混合液中,加入(1-氰基-2-乙氧基-2-氧代亚乙基氨基氧基)二甲基氨基吗啉代碳鎓六氟磷酸盐(COMU)的DMF溶液(0.5M,1.5当量)或O-(7-氮杂-1H-苯并三唑-1-基)-N,N,N,N-四甲基脒六氟磷酸酯(HATU)的DMF溶液(0.5M,1.5当量)以及DIPEA(1.8当量),在室温下搅拌2小时,由此进行N末端氨基与C末端羧基之间的缩合环化反应。当量数以作为原料使用的树脂的氨基酸担载率(mmol/g)乘以使用的树脂量(通常为100mg)的值作为基准进行计算。通过LC/MS测定(Waters公司制备的SQ Detector 2)确认目标环状肽的生成之后,利用Genevac公司制的高处理量离心蒸发器(HT-12)在减压下从反应液中蒸馏除去溶剂。

[4591] 1-3-4. 环状肽所具有的侧链官能团的保护基的脱保护

[4592] 对于使用在侧链上具有被THP保护的羟基的Fmoc保护氨基酸例如Fmoc-MeSer(tBuOTHP)-OH、Fmoc-Ser(tBuOTHP)-OH、Fmoc-MeSer(THP)-OH、Fmoc-Thr(THP)-OH、Fmoc-Ser(THP)-OH、Fmoc-D-MeSer(THP)-OH(化合物aa054)、Fmoc-cisHyp(THP)-OH(化合物

aa101) 以及Fmoc-Hyp (THP) -OH (化合物aa102) 合成的序列,向上述得到的残渣中加入4mL四甲基硫酸氢铵 (0.05M) 的1,1,1,3,3,3-六氟异丙醇 (HFIP) 溶液 (含有2% (v/v) 的三异丙基硅烷 (TIPS)、1% (v/v) 的1,2-二氯乙烷),使残渣溶解,然后在室温下静置4小时,由此进行THP保护基的脱保护。通过LC/MS (Waters公司制备的SQ Detector 2) 确认反应完成后,向反应液中加入二异丙基乙胺 (DIPEA) (70 μ L),用Genevac公司制备的高处理量离心蒸发器 (HT-12) 在减压下蒸馏除去溶剂。在该脱保护反应中,也可以使用例如2,2,2-三氟乙醇 (TFE) 等其他氟代醇来代替HFIP。

[4593] 对于使用Fmoc-MeAsp (OAl) -OH合成的序列,将环状肽溶解于DMF (0.5M) 中,在氮气气氛、室温下加入四 (三苯基膦) 钯 (0) (相对于肽为0.01-0.05当量)、苯基硅烷 (相对于肽为0.7当量),搅拌30分钟进行烯丙基的脱保护。通过LC/MS测定 (Waters公司制备的SQ Detector 2) 确认目标环状肽的生成之后,用Genevac公司制备的高处理量离心蒸发器 (HT-12) 在减压下从反应液中蒸馏除去溶剂。

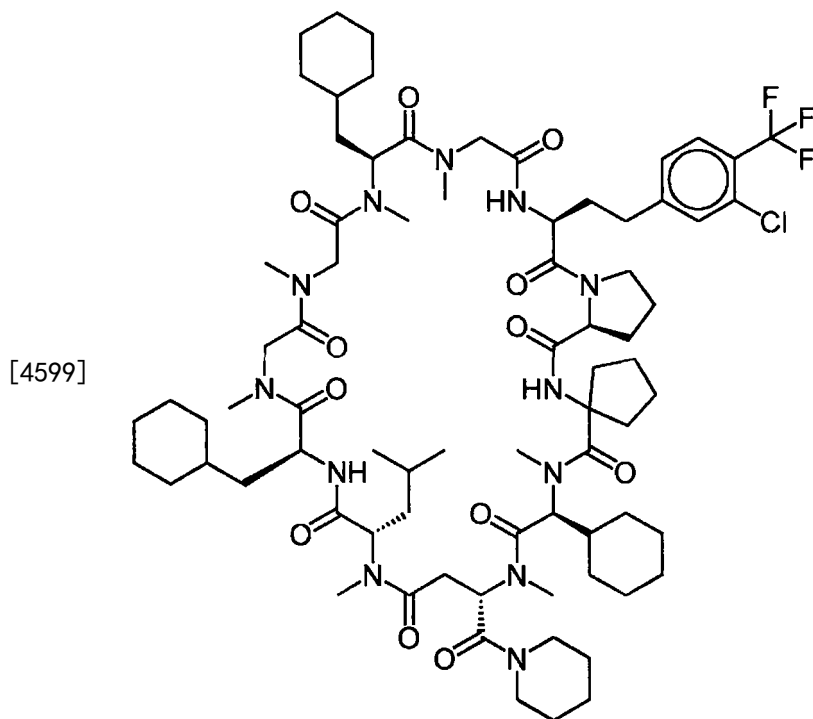
[4594] 1-3-5. 环状肽的纯化方法

[4595] 向通过上述方法得到的残渣中加入DMF或DMSO,将不溶物用过滤器过滤除去之后,用制备型HPLC纯化,得到目标环状肽。纯化装置采用Waters Auto Purification System,色谱柱采用YMC-Actus Triart C18 (内径20mm,长100mm) 或YMC-Actus Triart Phenyl (内径20mm,长100mm),流动相使用甲醇-乙酸铵水溶液 (50mmol/L) 或含有0.1%甲酸的乙腈-水。

[4596] 化合物1的合成

[4597] 使用化合物aa006-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -pip) (0.478mmol/g, 100mg, 0.0478mmol) 作为原料,并且使用Fmoc-MeChg-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph (4-CF₃-3-Cl) -OH、Fmoc-MeGly-OH、Fmoc-MeCha-OH、Fmoc-MeGly-OH、Fmoc-MeGly-OH、Fmoc-Cha-OH、和Fmoc-MeLeu-OH,进行上述基于Fmoc法的肽延伸反应、从树脂切割延伸后的肽、切割出的肽的环化 (使用O-(7-氮杂-1H-苯并三唑-1-基)-N,N,N,N-四甲基脌六氟磷酸酯 (HATU) 作为环化试剂) 以及环状肽的纯化,得到目标化合物1 (16.6mg, 23%)。

[4598] 化合物1 ((3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9,18-双(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)



化合物 1

[4600] LCMS (ESI) $m/z = 1480.1$ (M-H) -

[4601] 保留时间:2.155分钟(分析条件SSC-FA-03)

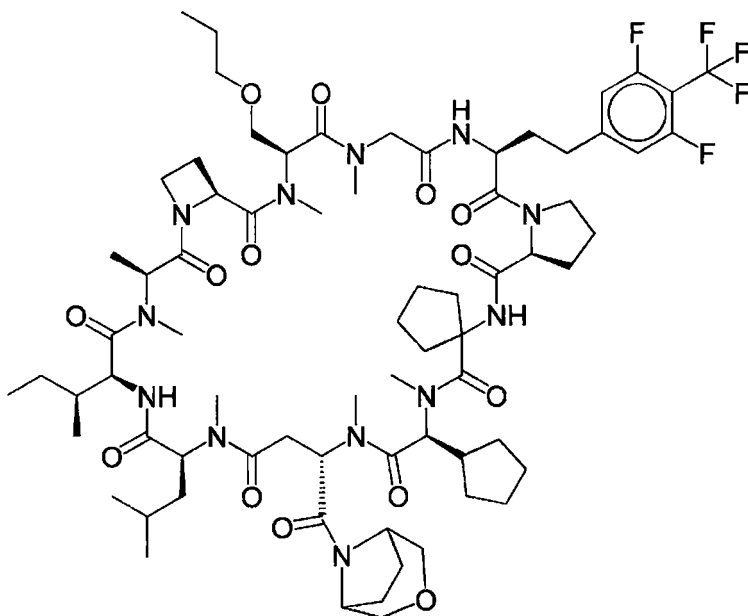
[4602] 按照化合物1的制备方法制备化合物2~化合物762、化合物764~化合物845、化合物847~化合物1027、化合物1029~化合物1135、化合物2007~化合物2020和化合物2111。对按照化合物1的制备方法制备得到的环状肽化合物进一步追加脱保护反应,来制备化合物1373~化合物1376。通过基于化合物1的制备方法的方法来制备化合物1450~化合物1460,该方法中追加包括多次重复进行使 $\alpha\alpha$ -二取代氨基酸与N-烷基氨基酸缩合的工序。

[4603] 化合物1355的合成

[4604] 使用化合物aa010-树脂、(3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-基)-4-氧代丁酸-2-氯三苯甲酯树脂(Fmoc-MeAsp(O-Trt(2-Cl)resin)-Mor(26-bicyc))(0.279mmol/g,100mg,0.0279mmol),并且使用Fmoc-MeGly(cPent)-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph(4-CF₃-35-F₂)-OH、Fmoc-MeGly-OH、Fmoc-MeSer(nPr)-OH、Fmoc-Aze(2)-OH、Fmoc-MeAla-OH、Fmoc-Ile-OH和Fmoc-MeLeu-OH,进行上述基于Fmoc法的肽延伸反应、从树脂切割延伸后的肽、切割出的肽的环化(使用(1-氰基-2-乙氧基-2-氧代亚乙基氨基氧基)二甲基氨基吗啉代碳鎗六氟磷酸盐(COMU)作为环化试剂)以及环状肽的纯化,得到目标化合物1355(9.75mg,24%)。

[4605] 化合物1355((5S,8S,11S,15S,18S,23aS,29S,35S,37aS)-15-(3-氧杂-8-氮杂双环[3.2.1]辛烷-8-羰基)-8-((S)-仲丁基)-18-环戊基-29-(3,5-二氟-4-(三氟甲基)苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-35-(丙氧基甲基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮)

[4606]



化合物 1355

[4607] LCMS (ESI) $m/z = 1457.9$ (M-H) -

[4608] 保留时间:7.425分钟(分析条件SSC-A-AF-01)

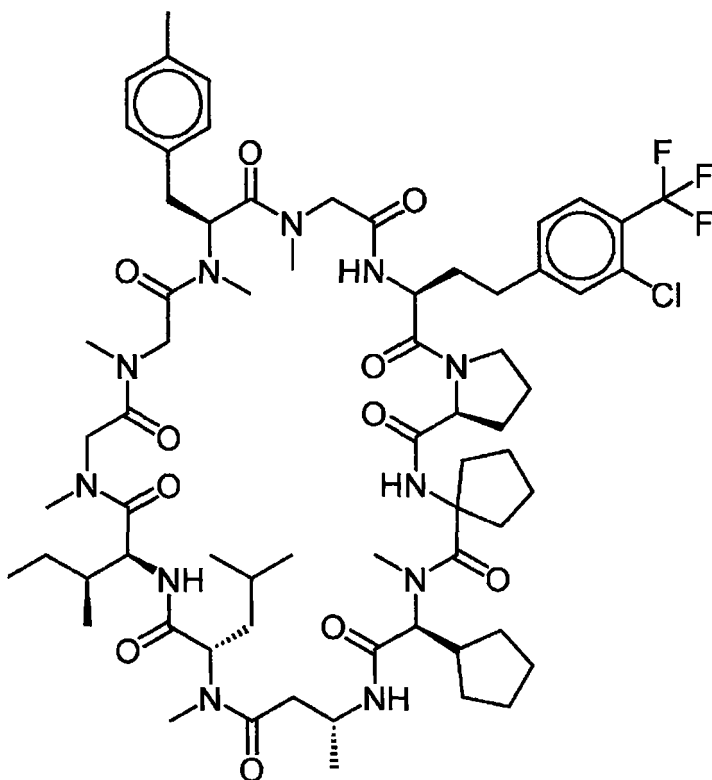
[4609] 按照化合物1355的制备方法制备化合物1136~化合物1146、以及化合物1148~化合物1354、化合物1356~化合物1372。通过基于化合物1355的制备方法的方法来制备化合物1869~化合物2006,该方法中追加包括在40℃~60℃下加热进行使包含 $\alpha\alpha$ -二取代氨基酸和/或N-烷基氨基酸的序列缩合的工序。

[4610] 化合物1417的合成

[4611] 使用化合物aa138-树脂、(3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂(Fmoc-D-3-Abu-O-Trt (2-Cl) resin) (0.494mmol/g, 100mg, 0.0494mmol), 并且使用Fmoc-MeGly(cPent)-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph(4-CF₃-3-Cl)-OH、Fmoc-MeGly-OH、Fmoc-MePhe(4-Me)-OH、Fmoc-MeGly-OH、Fmoc-MeGly-OH、Fmoc-Ile-OH以及Fmoc-MeLeu-OH, 进行上述基于Fmoc法的肽延伸反应(Fmoc-cLeu-OH的延伸使用Oxyma作为缩合剂, 在反应之后从玻璃料排出废液的操作之后, 进一步将Fmoc-cLeu-OH的缩合反应重复进行2次。此外, 对于未反应的氨基, 使用Z-Gly-OH(CAS号1138-80-3)并使用HOAt、DIC作为缩合剂, 使用DMF作为溶剂, 进行封端。对未反应的氨基的处理工序也称为基于甘氨酸封端的除去工序)、从树脂切割延伸后的肽、切割出的肽的环化(使用O-(7-氮杂-1H-苯并三唑-1-基)-N,N,N,N-四甲基脲六氟磷酸酯(HATU)作为环化试剂)以及环状肽的纯化, 得到目标化合物1471(12.68mg, 19%)。

[4612] 化合物1471((3S, 9S, 18S, 21S, 25R, 28S, 34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环戊基-21-异丁基-7, 10, 13, 16, 22, 25, 29-七甲基-18-[(1S)-1-甲基丙基]-9-(对甲苯基甲基)螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮)

[4613]



化合物 1471

[4614] LCMS (ESI) m/z = 1322.9 (M-H) -

[4615] 保留时间: 2.149分钟 (分析条件SSC-AF-00)

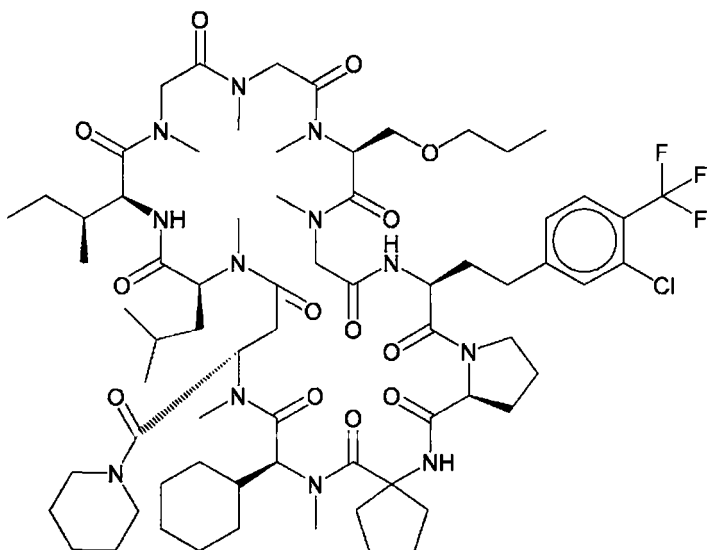
[4616] 通过基于化合物1471的制备方法的方法来制备化合物1377~化合物1410、化合物1142~化合物1449、化合物1461~化合物1470、化合物1472~化合物1643。该方法中追加包括:以化合物1471的制备方法为基准,重复进行多次使包含 $\alpha\alpha$ -二取代氨基酸和/或N-烷基氨基酸的序列缩合的工序,或者在40℃~60℃下加热进行;或者将上述两者组合进行。

[4617] 化合物1805的合成

[4618] 使用化合物aa006-树脂、((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.478mmol/g, 100mg, 0.0478mmol), 并且使用Fmoc-MeChg-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph(4-CF₃-3-Cl)-OH、Fmoc-MeGly-OH、Fmoc-MeSer(nPr)-OH、Fmoc-MeGly-OH、Fmoc-MeGly-OH、Fmoc-Ile-OH以及Fmoc-MeLeu-OH, 进行上述基于Fmoc法的肽延伸反应(Fmoc-MeChg-OH使用Oxyma作为缩合剂在50℃进行10小时缩合反应, Fmoc-cLeu-OH使用Oxyma作为缩合剂在60℃进行16小时缩合反应)、从树脂切割延伸后的肽、切割出的肽的环化(使用(1-氰基-2-乙氧基-2-氧代亚乙基氨基氧基)二甲基氨基吗啉代碳鎓六氟磷酸盐(COMU)作为环化试剂)以及环状肽的纯化, 得到目标化合物1805(25.53mg, 38%)。

[4619] 化合物1805((3S,9S,18S,21S,25S,28S,34S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-9-(丙氧基甲基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮

[4620]



化合物 1805

[4621] LCMS (ESI) $m/z = 1415.9$ (M-H) -

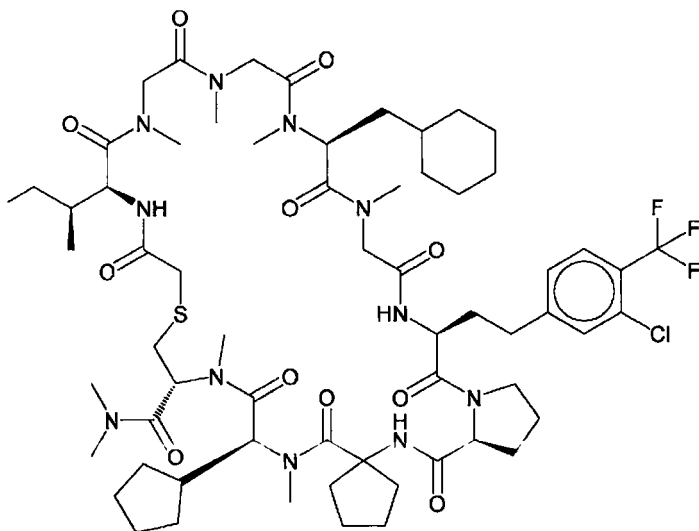
[4622] 保留时间:1.923分钟(分析条件SSC-FA-03)

[4623] 化合物2172以及化合物2173的合成

[4624] 化合物2172以及化合物2173的合成是使用化合物aa155-树脂(2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸-2-氯三苯甲酯树脂)、Fmoc-MeGly(cPent)-OH、Fmoc-MeIle-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph(4-CF₃-3-Cl)-OH、Fmoc-MeGly-OH、Fmoc-MeCha-OH、Fmoc-MePhe(4-Me)-OH以及Fmoc-Ile-OH作为原料,利用与化合物1~化合物762、化合物764~化合物1027、化合物1029~化合物1410、化合物1412~化合物2020、化合物2111中的任意一种的合成相同的方法,得到目标化合物2172(1.31mg,3%)和化合物2173(1.42mg,3%)。

[4625] 化合物2172((3S,9S,18S,24R,27S,33S)-18-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-27-环戊基-N,N,7,10,13,16,25,28-八甲基-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺)

[4626]

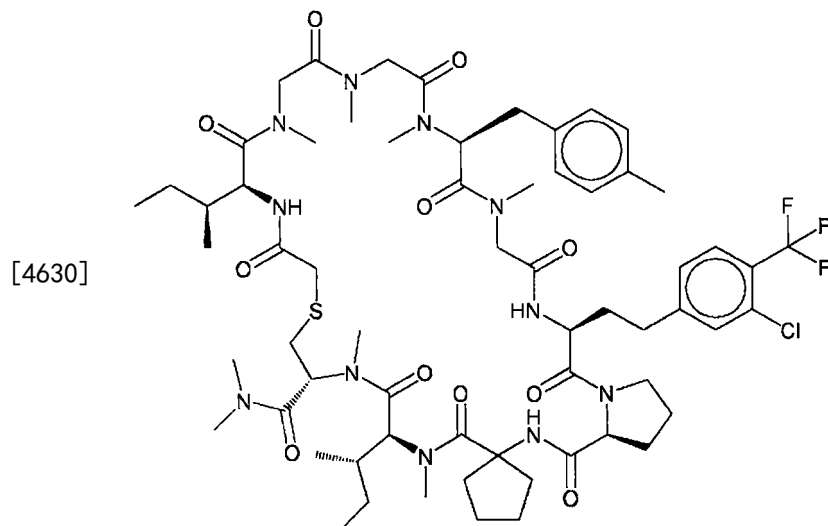


化合物 2172

[4627] LCMS (ESI) $m/z = 1307.1$ (M+H) +

[4628] 保留时间:1.48分钟(分析条件SQDFA05long)

[4629] 化合物2173((3S,9S,18S,24R,27S,33S)-18,27-双[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,25,28-八甲基-9-[(4-甲基苯基)甲基]-2,5,8,11,14,17,20,26,29,32-十氧代螺[22-硫杂-1,4,7,10,13,16,19,25,28,31-十氮杂双环[31.3.0]三十六烷-30,1'-环戊烷]-24-甲酰胺)

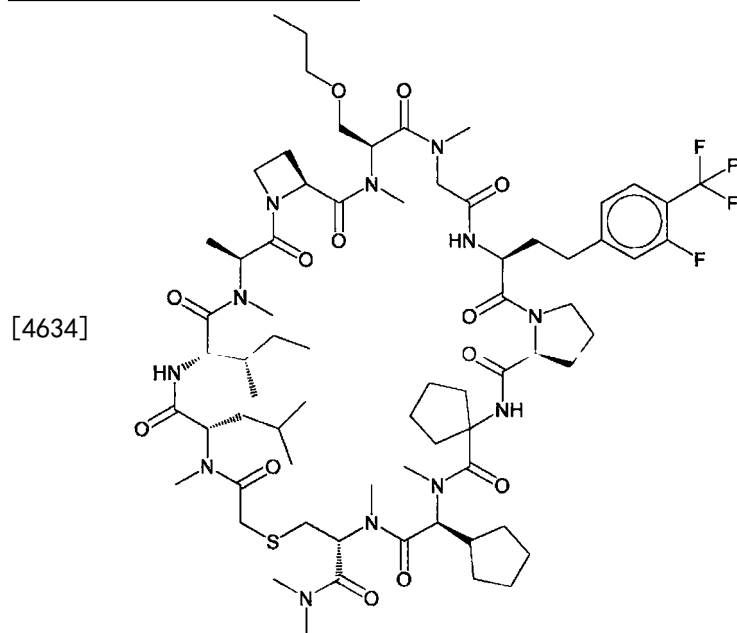


化合物 2173

[4631] LCMS (ESI) m/z = 1303.1 (M+H) +

[4632] 保留时间:1.16分钟(分析条件SQDFA05long)

[4633] 化合物2174((3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-32-环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代-9-(丙氧基甲基)螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.0^{12,15}]四十一烷-35,1'-环戊烷]-29-甲酰胺)的合成



化合物 2174

[4635] 使用化合物aa155-树脂(2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸-2-氯三苯甲酯树脂),采用本说明书记载的一般的

肽延伸方法,按照Fmoc-MeGly(cPent)-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hph(4-CF₃-3-F)-OH、Fmoc-MeGly-OH、Fmoc-MeSer(nPr)-OH、Fmoc-Aze(2)-OH、Fmoc-MeAla-OH、Fmoc-Ile-OH的顺序延伸肽链。在残留N末端Fmoc的状态下进行以下操作。

[4636] 将树脂依次用DMF(0.7mL×4次)、DCM(0.7mL×2次)、甲苯(0.7mL×2次)洗涤。向其中添加二氮杂双环十一碳烯(DBU)的甲苯溶液(2%v/v,0.7mL),使之反应10分钟从而进行Fmoc基的脱保护。将溶液从玻璃料中排出之后,依次用甲苯(0.7mL×2次)、DCM(0.7mL×2次)洗涤树脂。

[4637] 向按照上述得到的树脂中加入Fmoc-MeLeu-OH(49mg,0.134mmol,4当量)、[乙基氰基(羟基亚氨基)乙酸酯-02]三-1-吡咯烷基磷六氟磷酸(PyOxym)(70.6mg,0.134mmol,4当量)、DIPEA(0.035mL,0.2mmol,6当量)的DCM(0.7mL)溶液,在室温下静置3小时。将溶液从玻璃料排出之后,将树脂用DCM(0.7mL×3次)洗涤,进一步用DMF(0.7mL×3次)洗涤。向所得树脂中添加二氮杂双环十一碳烯(DBU)的DMF溶液(2%v/v,0.7mL),使之反应15分钟从而进行Fmoc基的脱保护之后,将溶液从玻璃料排出。将得到的树脂用DMF(0.7mL×4次)洗涤后,用DCM(1.25mL×4次)进行洗涤。

[4638] 在通过上述方法得到的树脂上,加入含有0.75%DIPEA的2,2,2-三氟乙醇(TFE)/DCM(1/1,v/v,2mL),在室温下振荡2小时,进行从树脂切割肽链的反应。反应后,从玻璃料回收管内的溶液。向残留的树脂中加入2,2,2-三氟乙醇(TFE)/DCM(1/1,v/v,1mL),从玻璃料中回收溶液,将该操作进行2次。将得到的所有切割溶液进行混合,加入DMF(4mL),利用Genevac公司制备的高处理量离心蒸发器(HT-12),在减压下蒸馏除去溶剂。

[4639] 将通过上述方法得到的残渣溶解于DMF(4mL)和DCM(4mL)的混合液中,加入(1-氰基-2-乙氧基-2-氧代亚乙基氨基氧基)二甲基氨基吗啉代碳鎓六氟磷酸盐(COMU)的DMF溶液(0.5M,0.1mL)和DIPEA(0.015mL),在室温下搅拌2小时,由此进行N末端氨基与侧链羧酸之间的缩合环化反应。通过LC/MS测定(Waters公司制SQ Detector 2)确认目标环状肽的生成后,利用Genevac公司制的高处理量离心蒸发器(HT-12)在减压下从反应液中蒸馏除去溶剂。

[4640] 向通过上述方法得到的残渣中加入DMF,用过滤器过滤除去不溶物后,利用制备型HPLC(采用Waters Auto Purification System,色谱柱使用YMC-Actus Triart Phenyl(内径20mm,长100mm),使用甲醇-乙酸铵水溶液(50mmol/L)作为流动相)进行纯化,得到目标化合物2174(5.55mg,12%)。

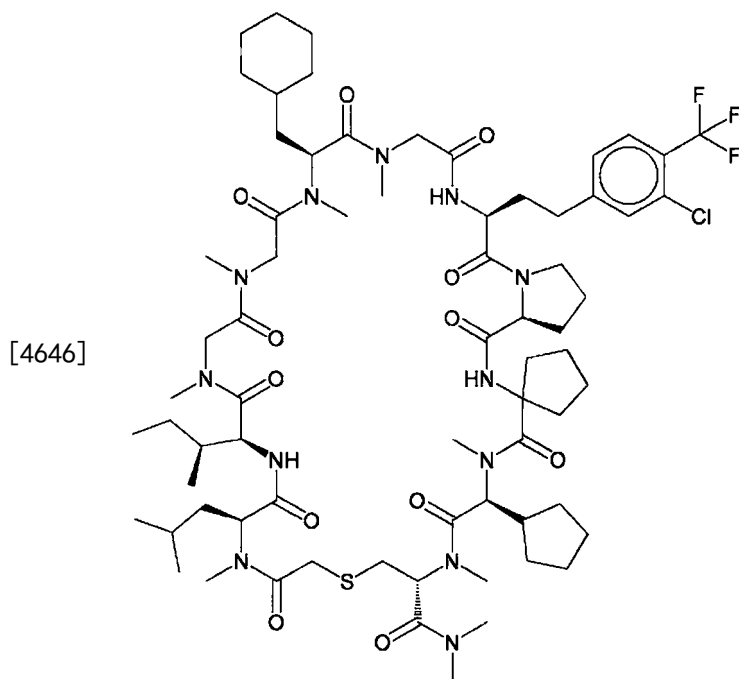
[4641] LCMS(ESI) m/z=1420.3(M+H)⁺

[4642] 保留时间:1.10分钟(分析条件SQDFA051ong)

[4643] 化合物2175~化合物2179的合成

[4644] 化合物2175~化合物2179是使用化合物aa155-树脂(2-[(2R)-3-(二甲基氨基)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-3-氧代丙基]硫烷基乙酸-2-氯三苯甲酯树脂)作为原料,并使用Fmoc-MeGly(cPent)-OH、Fmoc-MeIle-OH、Fmoc-cLeu-OH、Fmoc-Pro-OH、Fmoc-Hyp(Et)-OH、Fmoc-Hph(4-CF₃-3-Cl)-OH、Fmoc-Hph(4-CF₃-3-F)-OH、Fmoc-Hph(4-CF₃-3-F₂)-OH、Fmoc-MeGly-OH、Fmoc-MeCha-OH、Fmoc-MePhe(4-Me)-OH、Fmoc-Aze(2)-OH、Fmoc-MeAla-OH、Fmoc-Ile-OH、Fmoc-MeLeu-OH作为Fmoc氨基酸,从而利用与化合物2174的合成法相同的方法合成的。

[4645] 化合物2175 ((3S,9S,18S,21S,27R,30S,36S)-18-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环己基甲基)-30-环戊基-N,N,7,10,13,16,22,28,31-九甲基-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺)



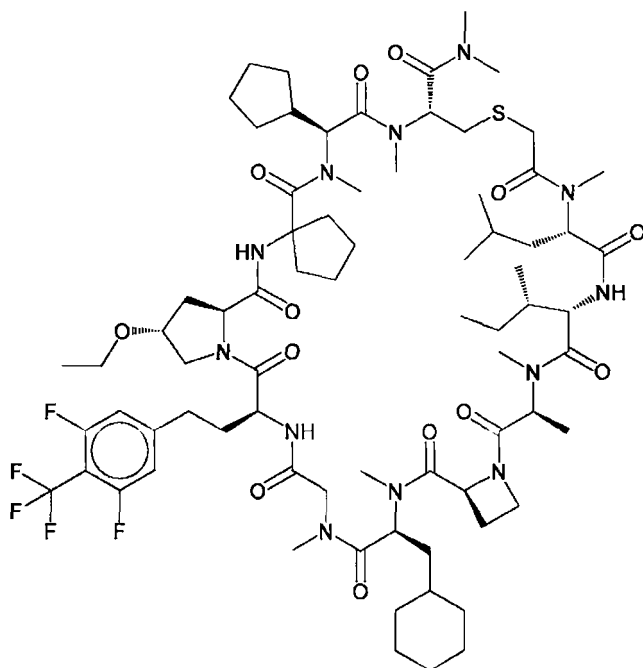
化合物 2175

[4647] LCMS (ESI) $m/z = 1434.3$ (M+H) +

[4648] 保留时间:1.64分钟(分析条件SQDFA051ong)

[4649] 化合物2176 ((3S,9S,12S,17S,20S,23S,29R,32S,38S,40R)-20-[(2S)-丁烷-2-基]-9-(环己基甲基)-32-环戊基-3-[2-[3,5-二氟-4-(三氟甲基)苯基]乙基]-40-乙氧基-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.012,15]四十一烷-35,1'-环戊烷]-29-甲酰胺)

[4650]



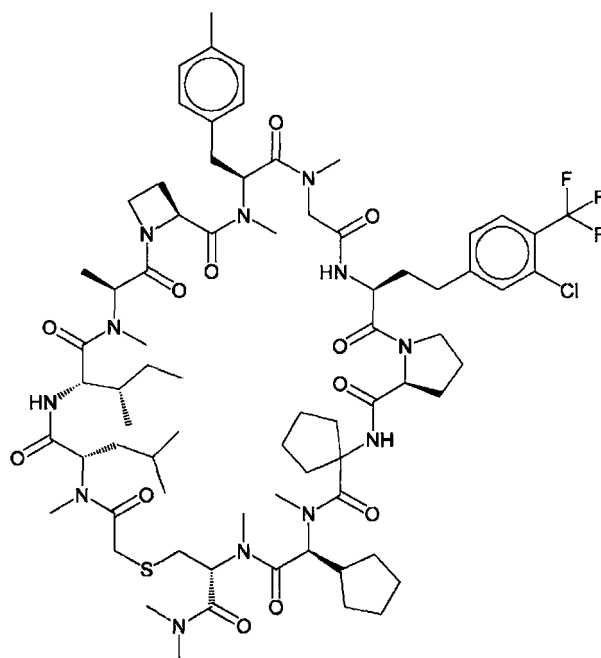
化合物 2176

[4651] LCMS (ESI) $m/z = 1506.4$ (M+H) +

[4652] 保留时间:1.88分钟(分析条件SQDFA051ong)

[4653] 化合物2177((3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-32-环戊基-N,N,7,10,17,18,24,30,33-九甲基-9-[(4-甲基苯基)甲基]-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.0^{12,15}]四十一烷-35,1'-环戊烷]-29-甲酰胺)

[4654]



化合物 2177

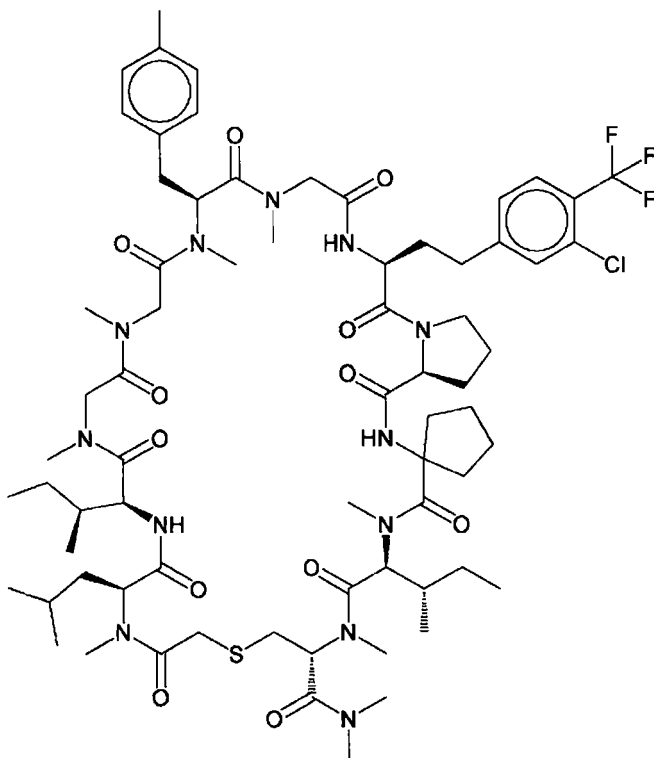
[4655] LCMS (ESI) $m/z = 1468.3$ (M+H) +

[4656] 保留时间:1.55分钟(分析条件SQDFA051ong)

[4657] 化合物2178((3S,9S,18S,21S,27R,30S,36S)-18,30-双[(2S)-丁烷-2-基]-3-[2-

[3-氯-4-(三氟甲基)苯基]乙基]-N,N,7,10,13,16,22,28,31-九甲基-9-[(4-甲基苯基)甲基]-21-(2-甲基丙基)-2,5,8,11,14,17,20,23,29,32,35-十一氧代螺[25-硫杂-1,4,7,10,13,16,19,22,28,31,34-十一氮杂双环[34.3.0]三十九烷-33,1'-环戊烷]-27-甲酰胺)

[4658]



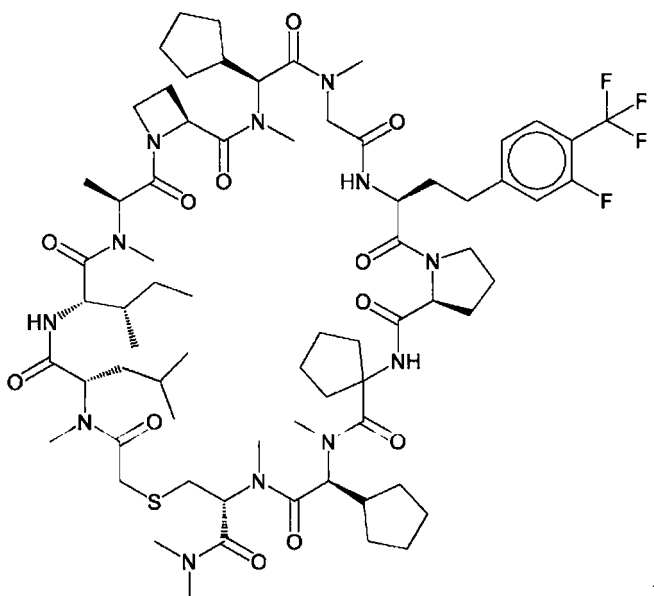
化合物 2178

[4659] LCMS (ESI) $m/z = 1430.3$ (M+H) +

[4660] 保留时间:1.43分钟(分析条件SQDFA05long)

[4661] 化合物2179((3S,9S,12S,17S,20S,23S,29R,32S,38S)-20-[(2S)-丁烷-2-基]-9,32-二环戊基-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-N,N,7,10,17,18,24,30,33-九甲基-23-(2-甲基丙基)-2,5,8,11,16,19,22,25,31,34,37-十一氧代螺[27-硫杂-1,4,7,10,15,18,21,24,30,33,36-十一氮杂三环[36.3.0.0^{12,15}]四十一烷-35,1'-环戊烷]-29-甲酰胺)

[4662]



化合物 2179

[4663] LCMS (ESI) $m/z = 1416.3 (M+H)^+$

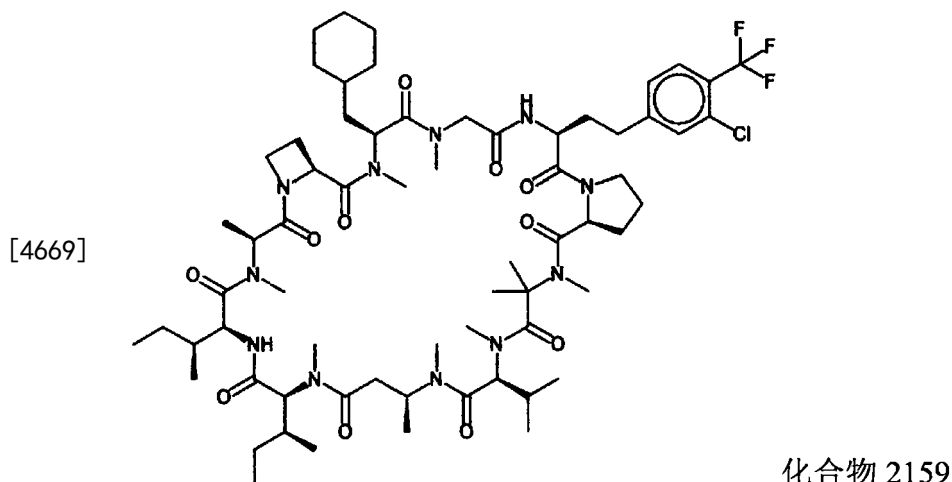
[4664] 保留时间:1.17分钟(分析条件SQDFA05long)

[4665] 实施例记载的环状肽化合物的质谱值和液相色谱的保留时间记载于表22。

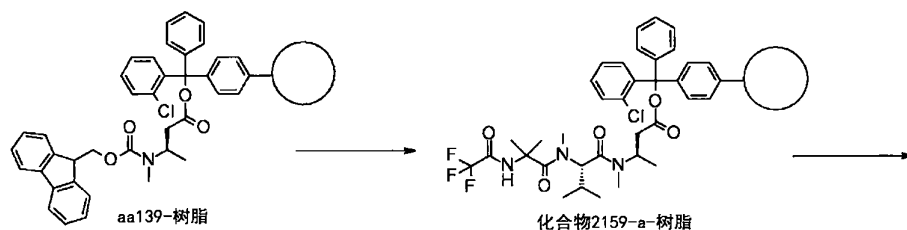
[4666] 1-4. 基于肽修饰的环状肽的合成

[4667] 1-4-1. 经由TFA酰胺在树脂上的N-甲基化合成肽

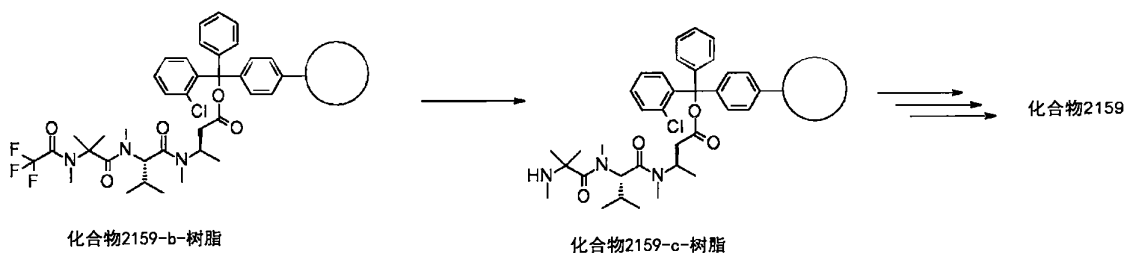
[4668] 化合物2159((5S,8S,11S,15R,18S,23aS,29S,35S,37aS)-8,11-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基)苯乙基)-35-(环己基甲基)-18-异丙基-5,6,12,15,16,19,21,21,22,33,36-十一甲基二十四氢-2H-氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-4,7,10,13,17,20,23,28,31,34,37(14H)-十一酮)的合成



[4670] 化合物2159的合成是按照以下简图进行的。



[4671]



[4672] 向2-氨基-2-甲基丙酸(H-Aib-OH, CAS号62-57-7)(2.5g, 24.24mmol)、DIPEA(4.66mL, 26.7mmol)的甲醇(12.12mL)溶液中加入三氟乙酸乙酯(3.76mL, 31.5mmol), 在60℃下搅拌20小时。将反应液冷却至室温, 在减压下蒸馏除去溶剂。向所得残渣中加入1mol/L盐酸水溶液, 用乙酸乙酯萃取。将有机层用饱和食盐水洗涤后, 用无水硫酸钠干燥, 在减压下蒸馏除去溶剂。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得残渣, 得到2-甲基-2-(2,2,2-三氟乙酰胺)丙酸(TFA-Aib-OH)(2.2g, 46%)。

[4673] LCMS (ESI) $m/z=198$ (M-H) -

[4674] 保留时间:0.40分钟(分析条件SQDFA05)

[4675] 使用化合物aa139-树脂((3R)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]丁酸-2-氯三苯甲酯树脂、Fmoc-D-3-MeAbu-O-Trt (2-Cl) resin) (100mg, 0.343mmol/g, 0.0343mmol) 作为原料, 在带有过滤器的反应容器中, 利用本实施例中记载的基本的肽延伸法, 在Fmoc-MeVal-OH的延伸之后, 进行通过上述配方得到的TFA-Aib-OH (2-甲基-2-(2,2,2-三氟乙酰胺) 丙酸) 的延伸, 得到化合物2159-a-树脂。

[4676] 将得到的化合物2159-a-树脂用DCM (1mL) 溶胀后用DMF (1mL) 洗涤4次。加入磷腈碱P1-tBu (38 μ L, 0.150mmol) 的DMF溶液 (180 μ L) 和碘甲烷 (62 μ L, 1mmol) 的DMF (180 μ L) 溶液, 在密闭条件下于40℃振荡30分钟。除去反应液后, 将树脂用DMF (1mL) 洗涤4次, 进一步用DCM (1mL) 洗涤4次, 得到化合物2159-b-树脂。将所得树脂的一部分用TFE/DCM (1/1) 切割, 用LC/MS进行分析以确认反应进程。

[4677] LCMS (ESI) $m/z=424$ (M-H) -

[4678] 保留时间:0.57分钟(分析条件SQDFA05)

[4679] 将硼氢化钠(NaBH₄) (758mg, 20mmol) 装入烧瓶中, 抽气后在氮气气氛下溶解于三甘醇二甲醚(10mL) 中并将其作为溶液A。将上述得到的化合物2159-b-树脂用DCM (1mL) 溶胀后, 用THF (0.7mL) 洗涤4次。向树脂中加入THF (0.5mL)、甲醇 (0.25mL)、溶液A (0.25mL), 在开放体系、室温下振荡40分钟。除去反应液后, 加入甲醇 (0.7mL), 1分钟后弃去溶液, 该树脂的洗涤操作重复4次, 进一步用DCM (0.7mL) 同样地将树脂洗涤4次, 得到化合物2159-c-树脂。将所得树脂的一部分用TFE/DCM (1/1) 切割, 用LC/MS进行分析以确认反应进程。

[4680] LCMS (ESI) $m/z=330$ (M+H) +

[4681] 保留时间:0.33分钟(分析条件SQDFA05)

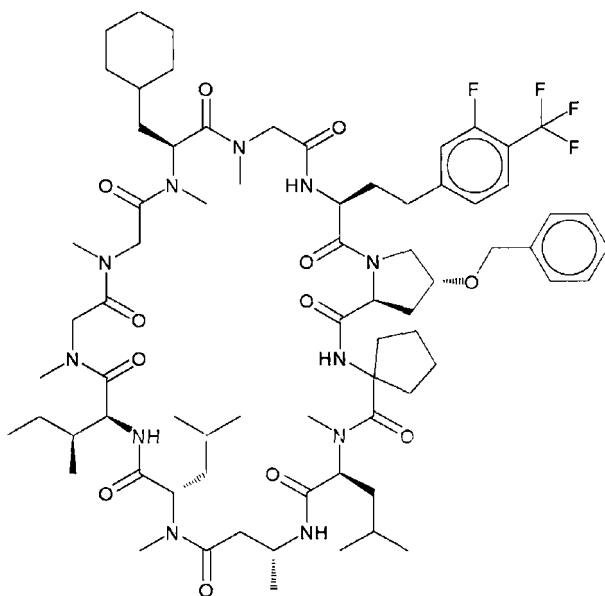
[4682] 之后的肽延伸、环化和纯化工序按照基本路线进行, 得到化合物2159((5S, 8S, 11S, 15R, 18S, 23aS, 29S, 35S, 37aS)-8, 11-二((S)-仲丁基)-29-(3-氯-4-(三氟甲基) 苯乙基)-35-(环己基甲基)-18-异丙基-5, 6, 12, 15, 16, 19, 21, 21, 22, 33, 36-十一甲基二十四氢-2H-氮杂环丁二烯并[2, 1-u]吡咯并[2, 1-i][1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31]十一氮杂环三十四碳十七烯-4, 7, 10, 13, 17, 20, 23, 28, 31, 34, 37(14H)-十一酮) (4.1mg, 9%)。LC/MS数据记载于表22中。

[4683] 化合物2152~化合物2158、化合物2160按照与化合物2159的合成相同的方法合成。LC/MS数据记载于表22中。

[4684] 1-4-2. 通过OH的烷基化进行的肽修饰

[4685] 化合物2116((3S, 9S, 18S, 21S, 25R, 28S, 34S, 36R)-36-苄氧基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基) 苯基] 乙基]-21, 28-二异丁基-7, 10, 13, 16, 22, 25, 29-七甲基-18-[(1S)-1-甲基丙基] 螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) 的合成

[4686]



化合物 2116

[4687] 在玻璃制的螺旋盖小瓶中混合利用本实施例中记载的基本肽合成法合成的化合物1483 ((3S,9S,18S,21S,25R,28S,34S,36R) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (5mg, 3.83 μ mol)、氧化银(I) (26.6mg, 0.115mmol)、苄基溴 (19.7mg, 0.115mmol), 加入1,4-二噁烷 (0.05mol/L, 77 μ L), 盖上瓶盖, 在60℃下反应过夜。过滤反应液后, 利用反相中压柱色谱(乙腈/水, 含有0.3%甲酸)纯化滤液, 得到化合物2116 ((3S,9S,18S,21S,25R,28S,34S,36R) -36-苄氧基-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-21,28-二异丁基-7,10,13,16,22,25,29-七甲基-18-[(1S)-1-甲基丙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (3.7mg, 70%)。LC/MS数据记载于表22中。

[4688] 化合物2118、化合物2125、化合物2128、化合物2130、化合物2131、化合物2133、化合物2134、化合物2138、化合物2139的合成

[4689] 利用与化合物2116的合成相同的方法, 使用按照本实施例记载的基本的肽延伸法合成的化合物875 ((3S,9S,18S,21S,25S,28S,34S,36R) -9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) 作为原料, 并使用下表所示的烷基化剂合成化合物2118、化合物2125、化合物2128、化合物2130、化合物2131、化合物2133、化合物2134、化合物2138以及化合物2139。利用反相中压柱色谱或制备型HPLC进行纯化。下表中记载了目标物肽、用于反应的烷基化剂、用作原料的化合物875的量(mg)、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4690] [表9]

[4691]

目标物	烷基化剂	原料 mg	目标物 mg	产率 %
化合物 2 1 3 8	2-氯苄基溴	5.4	3	50
化合物 2 1 1 8	碘乙烷	10.8	7	63
化合物 2 1 3 4	3-氯苄基溴	5.4	2	35
化合物 2 1 3 3	4-氯苄基溴	5.4	1.9	32
化合物 2 1 3 9	2-甲基苄基溴	5.4	3.1	54
化合物 2 1 2 5	3-甲基苄基溴	5.4	2.3	39
化合物 2 1 3 1	3-甲氧基苄基溴	5.4	2	34
化合物 2 1 3 0	4-甲基苄基溴	5.4	2.9	50
化合物 2 1 2 8	4-(二氟甲氧基)苄基溴	5.4	2.3	38

[4692] 化合物2132、化合物2126、化合物2129、化合物2127、化合物2137、化合物2141、化合物2136、化合物2140、化合物2135的合成

[4693] 利用与化合物2116的合成相同的方法,使用按照本实施例记载的基本的肽延伸法合成的化合物544((3S,9S,18S,21S,25S,28S,34S,36S)-9-(环己基甲基)-3-[2-[3-氟-4-(三氟甲基)苯基]乙基]-36-羟基-21,28-二异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)作为原料,并使用下表所示的烷基化剂合成化合物2132、化合物2126、化合物2129、化合物2127、化合物2137、化合物2141、化合物2136、化合物2140以及化合物2135。利用反相中压柱色谱或制备型HPLC进行纯化。下表中记载了目标物肽、用于反应的烷基化剂、用作原料的化合物544的量(mg)、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

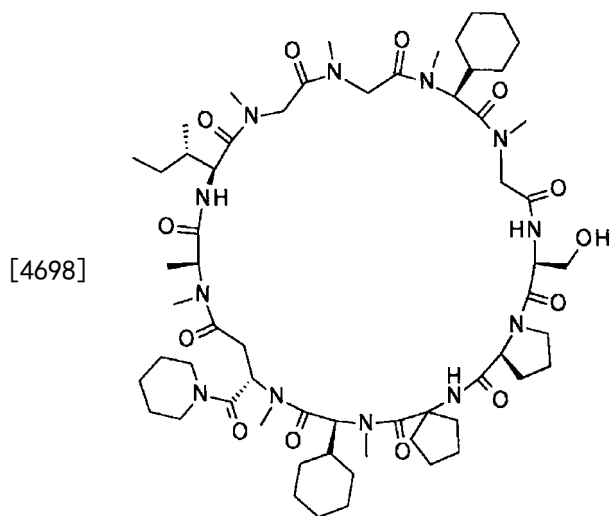
[4694] [表10]

[4695]

目标物	烷基化剂	原料 mg	目标物 mg	产率 %
化合物 2 1 3 2	2-氯苄基溴	5.4	0.7	11
化合物 2 1 2 6	3-氯苄基溴	5.4	0.3	6
化合物 2 1 2 9	4-氯苄基溴	5.4	0.7	11
化合物 2 1 2 7	碘乙烷	10.8	2.6	23
化合物 2 1 3 7	2-甲基苄基溴	5.4	2.4	41
化合物 2 1 4 1	3-甲基苄基溴	5.4	2.5	42
化合物 2 1 3 6	3-甲氧基苄基溴	5.4	1.7	29
化合物 2 1 4 0	4-甲基苄基溴	5.4	1.7	29
化合物 2 1 3 5	4-(二氟甲氧基)苄基溴	5.4	2	32

[4696] 化合物2043、2044、2045的合成

[4697] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.3mmol/g, 1.6g, 0.48mmol)作为原料,利用本实施例记载的基本肽合成法合成以下所示的前体肽(化合物2044-a)(230mg, 0.188mmol, 39%)



化合物 2044-a

[4699] LCMS (ESI) $m/z = 1224 (M+H)^+$

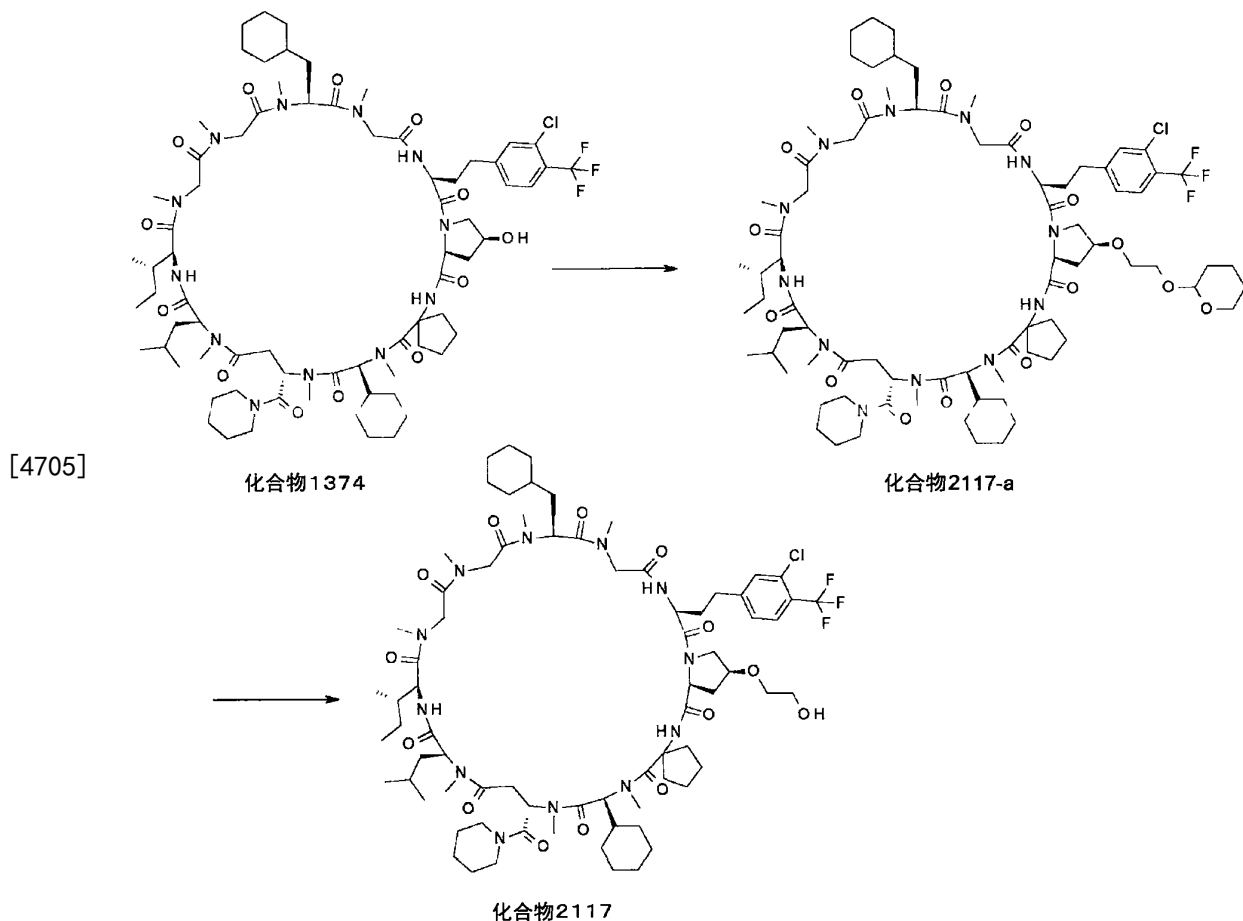
[4700] 保留时间:0.82分钟(分析条件SQDFA05)

[4701] 使用化合物2044-a作为原料并使用下表所示的烷基化剂,利用与化合物2116的合成相同的方法,合成化合物2043、化合物2044、化合物2045。利用反相中压柱色谱或制备型HPLC进行纯化。下表中记载了目标物肽、用于反应的烷基化剂、用作原料的化合物2044-a的量(mg)、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4702] [表11]

目标物	烷基化剂	原料 mg	目标物 mg	产率 %
[4703] 化合物 2044	4-氯苄基溴	20	8.2	37
化合物 2045	3-氯苄基溴	9.9	6	55
化合物 2043	2-氯苄基溴	9.9	1	9

[4704] 化合物2117((3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



[4706] 将化合物1374((3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)(5mg, 3.43 μ mol)作为原料,向其中加入2-(2-溴乙氧基)四氢-2H-吡喃(14.3mg, 0.0686mmol)、四丁基溴化铵(3.32mg, 10.29 μ mol),然后加入二氯甲烷(0.04mol/L, 86 μ L)和5mol/L氢氧化钠水溶液(27.4 μ L),在室温下反应5天。利用反相中压柱色谱(乙腈/水,含有0.3%甲酸)纯化反应液,得到化合物2117-a(3.3mg, 61%)。

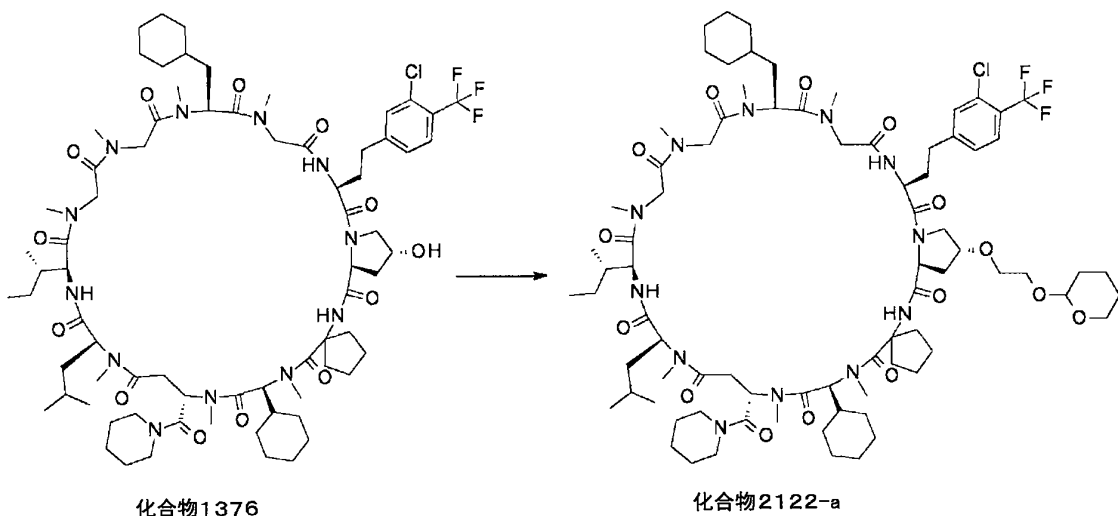
[4707] LCMS (ESI) m/z = 1586 (M+H) +

[4708] 保留时间:0.85分钟(分析条件SQDFA50)

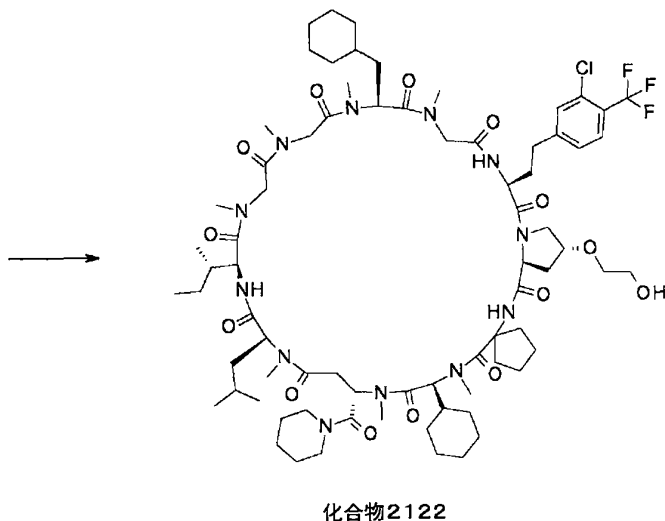
[4709] 按照本实施例记载的基本的肽延伸法,对化合物2117-a(3.3mg, 2.08 μ mol)进行THP保护基的脱保护后,进行纯化从而得到化合物2117((3S,9S,18S,21S,25S,28S,34S,36S)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)(1.59mg, 54%)。LC/MS数据记载于表22中。

[4710] 化合物2122((3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,

29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



[4711]



[4712] 使用化合物1376 ((3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (5mg, 3.43 μ mol) 作为原料, 利用与化合物1374-a的合成相同的方法得到化合物2122-a (3.1mg, 57%)。

[4713] LCMS (ESI) m/z = 1585.9 (M+H) +

[4714] 保留时间: 0.95分钟 (分析条件SQDFA50)

[4715] 使用化合物2122-a (3.1mg) 按照本实施例记载的基本的肽延伸法进行THP保护基的脱保护后, 进行纯化从而得到化合物2122 ((3S,9S,18S,21S,25S,28S,34S,36R)-3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-(2-羟基乙氧基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (1.3mg, 44%)。LC/MS数据记载于表22中。

[4716] 化合物2121、化合物2119、化合物2124、化合物2120以及化合物2123的合成

[4717] 使用化合物1376 ((3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)作为原料,利用与化合物2117-a的合成相同的方法,合成化合物2121、化合物2119、化合物2124。利用反相中压柱色谱或制备型HPLC进行纯化。下表中记载了目标物肽、用于反应的烷基化剂、用作原料的化合物1376的量(mg)、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4718] [表12]

[4719]	目标物	烷基化剂	原料 mg	目标物 mg	产率 %
	化合物 2 1 2 4	3-溴甲基噻吩	5	2. 1	3 9
	化合物 2 1 2 1	3-(氯甲基)吡啶	1 5	0. 6 7	4
	化合物 2 1 1 9	2,2-二氟乙基三氟甲磺酸酯	5	4. 2 7	8 2

[4720] 使用化合物1374 ((3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-28-环己基-9-(环己基甲基)-36-羟基-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)作为原料,利用与化合物2117-a的合成相同的方法,合成化合物2120以及化合物2123。利用反相中压柱色谱或制备型HPLC进行纯化。下表中记载了目标物肽、用于反应的烷基化剂、用作原料的化合物1374的量(mg)、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

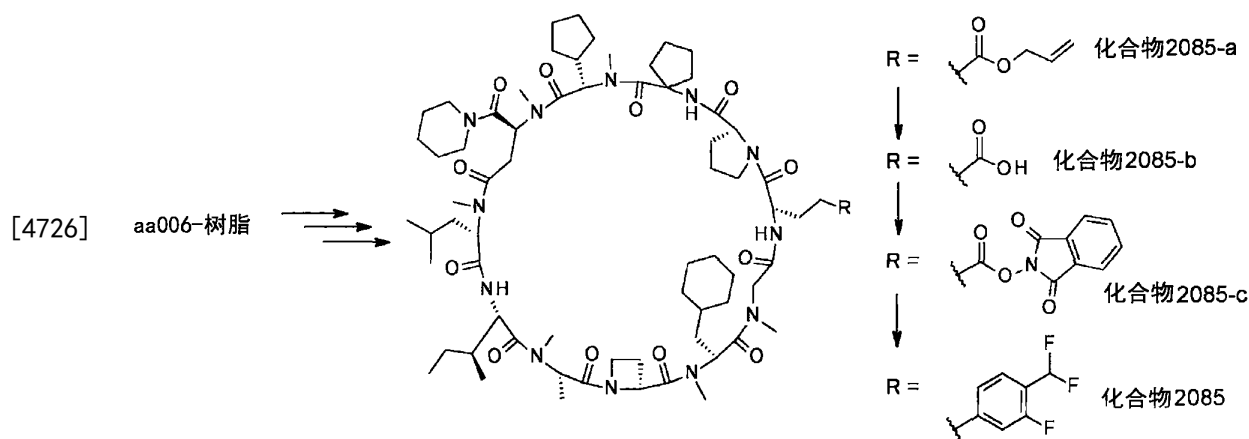
[4721] [表13]

[4722]	目标物	烷基化剂	原料 mg	目标物 mg	产率 %
	化合物 2 1 2 0	3-(氯甲基)吡啶	1 5	1. 3	8
	化合物 2 1 2 3	2,2-二氟乙基三氟甲磺酸酯	5	5	9 6

[4723] 1-4-3.通过还原偶联反应进行的肽修饰

[4724] 化合物2085 ((5S,8S,11S,15S,18S,23aS,29S,35S,37aS) -8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(4-(二氟甲基)-3-氟苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮)的合成

[4725] 按照以下简图进行化合物2085的合成。



[4727] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fm0518oc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.531mmol/g, 1.3g, 0.69mmol)作为原料, 利用本实施例中记载的基本的肽合成法得到化合物2085-a(772mg, 0.531mmol, 77%)。

[4728] LCMS (ESI) $m/z = 1360$ (M+H) +

[4729] 保留时间: 1.01分钟(分析条件SQDFA05)

[4730] 将化合物2085-a(772mg, 0.568mmol)和四(三苯基膦)钯(0)(6.56mg, 5.68 μ mol)混合, 在氮气气氛下加入DCM(1.2ml)和苯基硅烷(49 μ l, 0.398mmol), 在室温下搅拌30分钟。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化反应混合物, 得到化合物2085-b(255mg, 34%)。

[4731] LCMS (ESI) $m/z = 1320$ (M+H) +

[4732] 保留时间: 0.87分钟(分析条件SQDFA05)

[4733] 将化合物2085-b(255mg, 0.193mmol)、N-羟基邻苯二甲酰亚胺(40.9mg, 0.25mmol)、1-乙基-3-(3-二甲基氨基丙基)碳二亚胺盐酸盐(WSCI·HCl)(74.1mg, 0.386mmol)溶解于DCM(2ml)中, 在室温下搅拌2小时15分钟。将反应混合液用DCM稀释并用水洗涤2次。将有机层用硫酸钠干燥后, 减压浓缩, 得到化合物2085-c的粗产物(299mg, quant.)。

[4734] LCMS (ESI) $m/z = 1465$ (M+H) +

[4735] 保留时间: 1.00分钟(分析条件SQDFA05)

[4736] 在氮气气氛下, 将三水合溴化镍($\text{NiBr}_2 \cdot 3\text{H}_2\text{O}$)(2.79mg, 10.24 μ mol)和4,4'-二叔丁基-2,2'-联吡啶(2.75mg, 1.052 μ mol)溶解于DMA(60 μ L)中, 制备Ni溶液。

[4737] 在氮气气氛下, 向化合物2085-c(15.0mg, 10.24 μ mol)、锌粉(10mg, 0.154mmol)和4-溴-1-(二氟甲基)-2-氟苯(12.0mg, 51.2 μ mol)的混合物中加入DMA(60 μ L), 然后加入之前制备的Ni溶液, 在室温下搅拌16小时。然后利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化反应溶液, 将分离组分冷冻干燥, 由此得到化合物2085((5S, 8S, 11S, 15S, 18S, 23aS, 29S, 35S, 37aS)-8-((S)-仲丁基)-35-(环己基甲基)-18-环戊基-29-(4-(二氟甲基)-3-氟苯乙基)-11-异丁基-5,6,12,16,19,33,36-七甲基-15-(哌啶-1-羰基)二十二氢-2H,4H-螺[氮杂环丁二烯并[2,1-u]吡咯并[2,1-i][1,4,7,10,13,16,19,22,25,28,31]十一氮杂环三十四碳十七烯-21,1'-环戊烷]-4,7,10,13,17,20,23,28,31,34,37(14H,22H)-十一酮)(6.2mg, 42.7%)。LC/MS数据记载于表22中。

[4738] 化合物2077、化合物2076、化合物2072、化合物2080、化合物2078、化合物2074、化合物2057、化合物2067、化合物2070、化合物2065、化合物2064、化合物2084、化合物2063、化合物2060和2069的合成

[4739] 利用与化合物2085相同的合成法,使用化合物2085-c (15mg) 并使用以下所示的芳基溴化物(相对于原料肽为5当量),得到化合物2077、化合物2076、化合物2072、化合物2080、化合物2078、化合物2074、化合物2057、化合物2067、化合物2070、化合物2065、化合物2064、化合物2084、化合物2063、化合物2060、化合物2069。下表中记载了目标物肽、用于反应的芳基溴化物、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

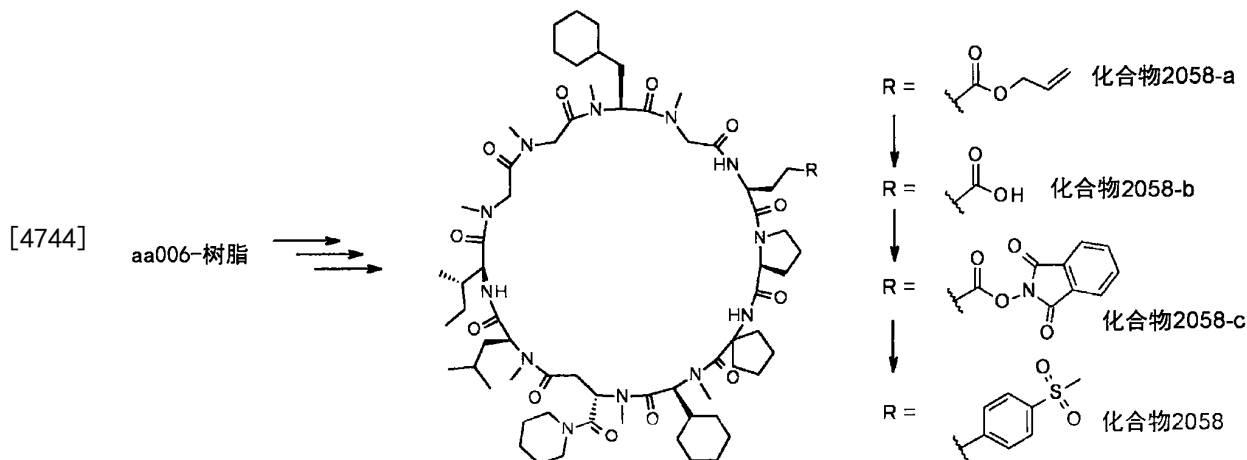
[4740] [表14]

目标物	芳基溴化物	目标物 mg	产率 %
化合物2077	7-溴喹啉	7.6	53
化合物2076	4-溴-1-(二氟甲氧基)-2-氟苯	6.3	43
化合物2072	5-溴-2-(三氟甲基)苄腈	4.6	31
化合物2080	4-溴-2-甲氧基-1-(三氟甲基)苯	5.2	35
化合物2078	5-溴-2-(三氟甲基)吡啶	3.8	26
化合物2074	5-溴-2,2-二氟-1,3-苯并间二氧杂环戊烯	5.8	40
[4741] 化合物2057	4-溴-2-氯-1-(三氟甲氧基)苯	1.4	9
化合物2067	4-溴-2-氟-1-(三氟甲氧基)苯	4.7	31
化合物2070	6-溴喹啉	6	42
化合物2065	6-溴-1-甲基-1H-吲哚	4.6	32
化合物2064	5-溴-1-甲基-1H-吲哚	4.4	30
化合物2084	5-溴-2-甲氧基吡啶	5.8	41
化合物2063	5-溴苯并咪唑	3.8	27
化合物2060	5-溴-2-(二氟甲基)吡啶	5.5	38
化合物2069	2-溴-5-(三氟甲基)吡啶	3.8	26

[4742] 化合物2058((3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异

丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-(4-甲基磺酰基苯基)乙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成

[4743] 化合物2058的合成是按照以下简图进行的。



[4745] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)作为原料,利用本实施例中记载的基本的肽合成法进行肽合成,得到化合物2058-a,进而,利用与化合物2058-b的合成相同的方法得到2058-b。进而,利用与化合物2058-c的合成相同的方法得到化合物2058-c(299mg,0.206mmol)。

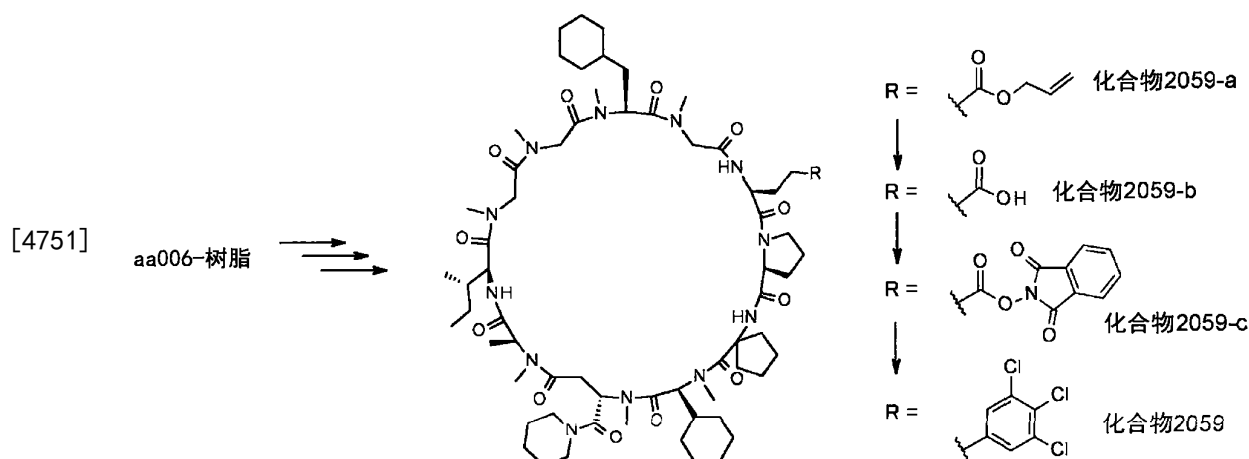
[4746] LCMS(ESI) $m/z = 1453 (M+H)^+$

[4747] 保留时间:1.03分钟(分析条件SQDFA05)

[4748] 使用化合物2058-c(15mg,10.32 μ mol)作为原料并使用1-溴-4-(甲基磺酰基)苯(相对于肽为5当量)作为芳基卤化物,通过与化合物2058的合成相同的方法,得到化合物2058((3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-21-异丁基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-3-[2-(4-甲基磺酰基苯基)乙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)(4.1mg,28%)。LC/MS数据记载于表22中。

[4749] 化合物2059((3S,9S,18S,21S,25S,28S,34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成

[4750] 化合物2059的合成是按照以下简图进行的。



[4752] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.437mmol/g, 3g, 1.311mmol)作为原料,利用本实施例中记载的基本的肽合成法进行肽合成,得到化合物2059-a,进而,利用与化合物2085-b的合成相同的方法得到2059-b。进而利用与化合物2085-c的合成相同的方法得到化合物2059-c(388mg, 0.275mmol, 21%)。

[4753] LCMS (ESI) m/z = 1411 (M+H) +

[4754] 保留时间:0.95分钟(分析条件SQDFA05)

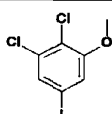
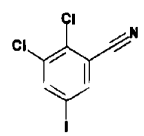
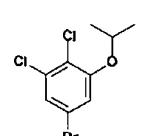
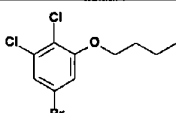
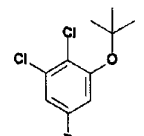
[4755] 使用化合物2059-c(15mg)作为原料并使用5-溴-1,2,3-三氯苯(相对于肽为10当量)作为芳基卤化物,利用与化合物2085的合成相同的方法,得到化合物2059((3S, 9S, 18S, 21S, 25S, 28S, 34S)-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)(6.6mg, 47%)。LC/MS数据记载于表22中。

[4756] 化合物2081、化合物2075、化合物2062、化合物2066、化合物2082的合成

[4757] 通过与化合物2059相同的合成法,使用化合物2059-c(15mg)作为原料并使用以下所示的芳基卤化物(相对于原料肽为10当量),得到化合物2081、化合物2075、化合物2062、化合物2066、化合物2082。下表中记载了目标物肽、用于反应的芳基卤化物、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

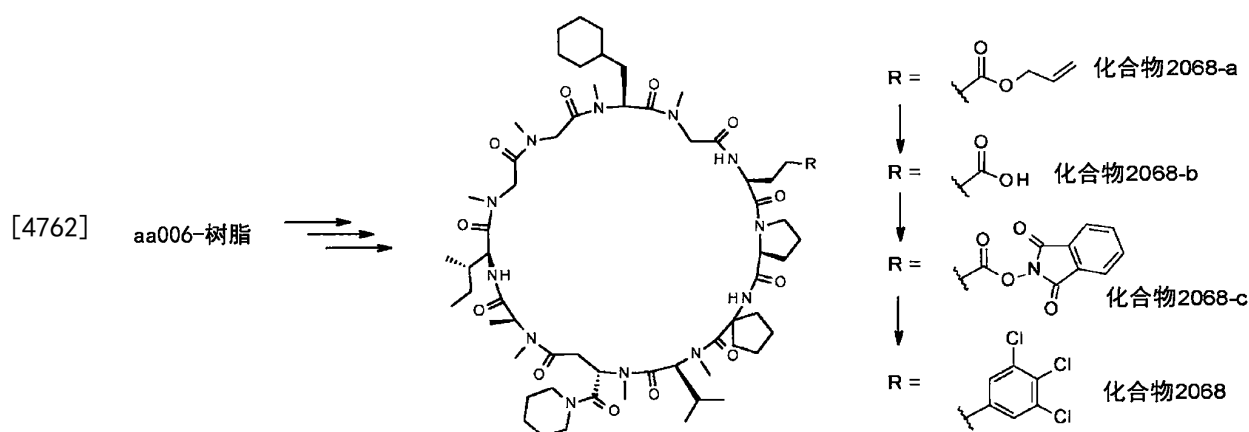
[4758] [表15]

[4759]

目标物	芳基卤化物	产量 mg	产率%
化合物2081	 化合物2081-a	6.9	47
化合物2075	 化合物2075-a	0.7	5
化合物2062	 化合物2062-a	9.4	60
化合物2066	 化合物2066-a	3.3	21
化合物2082	 化合物2082-a	8.3	53

[4760] 化合物2068((3S,9S,18S,21S,25S,28S,34S)-9-(环己基甲基)-28-异丙基-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-(3,4,5-三氯苯基)乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成

[4761] 化合物2068的合成是按照以下简图进行的。



[4763] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.437mmol/g,4.1g,1.79mmol)作为原料,利用本实施例中记载的基本的肽合成法进行肽合成,得到化合物2068-a,进而,利用与化合物2085-b的合成相同的方法得到2068-b。进而利用与化合物

2085-c的合成相同的方法得到化合物2068-c (553mg, 0.403mmol, 23%)。

[4764] LCMS (ESI) $m/z = 1371$ (M+H) +

[4765] 保留时间: 0.86分钟 (分析条件SQDFA05)

[4766] 在氮气气氛下, 将溴化镍三水合物 (5.97mg, 0.022mmol) 和4,4'-二叔丁基-2,2'-联吡啶 (5.87mg, 0.022mmol) 溶于DMA (110 μ L) 中, 制备Ni溶液。

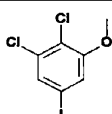
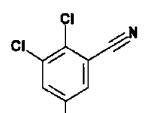
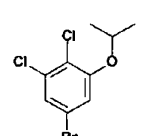
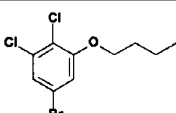
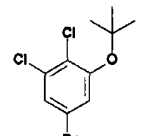
[4767] 在氮气气氛下, 向化合物2068-c (15.0mg, 10.94 μ mol)、锌粉 (10.7mg, 0.164mmol) 和5-溴-1,2,3-三氯苯 (28.5mg, 109 μ mol) 中加入DMA (55 μ L) 后, 添加之前制备的Ni溶液, 在室温下搅拌5小时。滤去析出物后, 在减压下蒸馏除去溶剂。加入正己烷/TFE/水=1/1/1, 滤去析出物后, 除去正己烷层, 在减压下蒸馏除去溶剂。然后利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化反应溶液, 得到化合物2068 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -9-(环己基甲基) -28-异丙基-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S) -1-甲基丙基] -25-(哌啶-1-羰基) -3-[2-(3,4,5-三氯苯基) 乙基] 螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷] -2,5,8,11,14,17,20,23,27,30,33-十一酮) (5.0mg, 33%)。LC/MS数据记载于表22中。

[4768] 化合物2061、化合物2071、化合物2079、化合物2083、化合物2073的合成

[4769] 利用与化合物2068相同的合成法, 使用化合物2068-c (15mg) 作为原料并使用以下所示的芳基卤化物 (相对于原料肽为10当量), 得到化合物2061、化合物2071、化合物2079、化合物2083、化合物2073。下表中记载了目标物肽、用于反应的芳基卤化物、目标物的产量 (mg) 和产率 (%)。LC/MS数据记载于表22中。

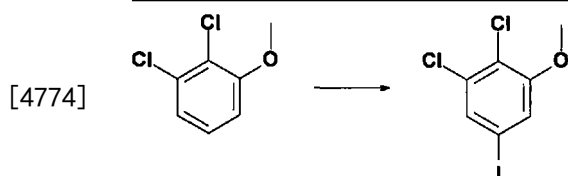
[4770] [表16]

[4771]

目标物	芳基卤化物	产量 mg	产率 %
化合物2061	 化合物2081-a	6.8	46
化合物2071	 化合物2075-a	2.5	17
化合物2079	 化合物2062-a	1.1	7
化合物2083	 化合物2066-a	7.2	47
化合物2073	 化合物2082-a	9.2	60

[4772] 用于合成化合物2081、化合物2075、化合物2062、化合物2066、化合物2082、化合物2061、化合物2071、化合物2079、化合物2083、化合物2073的芳基卤化物是按照以下方法合成的。

[4773] 化合物2081-a (1,2-二氯-5-碘-3-甲氧基苯) 的合成

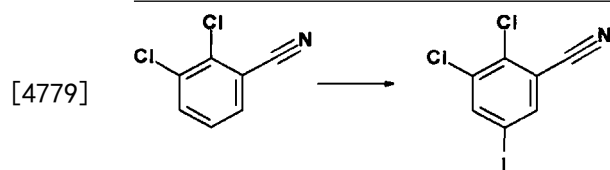


[4775] 向2,3-二氯苯甲醚(1.0g, 5.65mmol)的TBME溶液(28.2mL)中加入双(频哪醇合)二硼(B_2pin_2) (2.15g, 8.48mmol)和(1,5-环辛二烯)(甲氧基)铱(I)(二聚体)($[Ir(COD)(OMe)]_2$) (0.187g, 0.282mmol),在氮气氛下于室温搅拌2小时。在减压下蒸馏除去溶剂,加入DMF(50mL),再加入碘化铜(I)(CuI) (1.61g, 8.47mmol),在空气中、80℃搅拌4小时。冷却至室温后,加入正己烷/乙酸乙酯=1/1(100mL),依次用饱和氯化铵水溶液、饱和硫代硫酸钠水溶液、饱和碳酸氢钠水溶液、50%食盐水各100mL洗涤。用无水硫酸钠干燥并将其过滤除去,然后在减压下蒸馏除去溶剂。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得残渣。收集分离组分并进行浓缩后,溶解于正己烷/乙酸乙酯=1/1中,用饱和碳酸氢钠水溶液洗涤。用无水硫酸钠干燥并将其过滤除去,然后在减压下蒸馏除去溶剂,由此得到化合物2081-a (1,2-二氯-5-碘-3-甲氧基苯) (514mg, 30%)。

[4776] 保留时间:1.01分钟(分析条件SQDFA05)

[4777] $^1\text{H-NMR}$ ($\text{DMSO}-d_6$) δ : 7.60 (1H, d, $J=1.9\text{Hz}$), 7.45 (1H, d, $J=1.9\text{Hz}$), 3.90 (3H, s)。

[4778] 化合物2075-a (2,3-二氯-5-碘苄腈)的合成

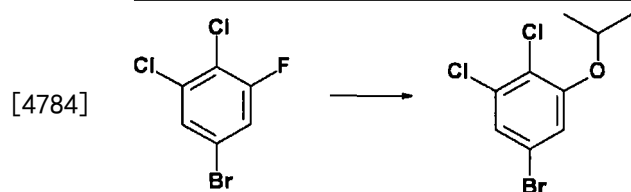


[4780] 向2,3-二氯苄腈 (500mg, 2.91mmol) 的THF (14.5mL) 溶液中加入双(频哪醇合)二硼 (B_2pin_2) (1.11g, 4.36mmol) 和 (1,5-环辛二烯) (甲氧基) 铱 (I) (二聚体) ($[\text{Ir}(\text{COD})(\text{OMe})]_2$) (96mg, 0.145mmol), 在氮气气氛、60℃下搅拌1小时。在减压蒸馏除去溶剂, 加入DMF (30mL), 再加入碘化铜 (I) (CuI) (830mg, 4.36mmol) 和N-碘代琥珀酰亚胺 (NIS) (981mg, 4.36mmol), 在空气中、80℃下搅拌6小时。冷却至室温后, 加入正己烷/乙酸乙酯=1/1 (30mL), 依次用饱和氯化铵水溶液、饱和碳酸氢钠水溶液、50%食盐水各60m洗涤。用无水硫酸钠干燥并将其过滤除去, 然后在减压下蒸馏除去溶剂。利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化所得残渣。收集分离组分并进行浓缩后, 溶解于正己烷/乙酸乙酯=1/1中, 用饱和碳酸氢钠水溶液洗涤。用无水硫酸钠干燥并将其过滤除去, 然后在减压下蒸馏除去溶剂, 由此得到化合物2075-a (2,3-二氯-5-碘苄腈) (535mg, 62%)。

[4781] 保留时间: 0.91分钟 (分析条件SQDFA05)

[4782] $^1\text{H-NMR}$ ($\text{DMSO}-d_6$) δ : 8.42 (1H, d, $J=1.9\text{Hz}$), 8.39 (1H, d, $J=1.9\text{Hz}$)。

[4783] 化合物2062-a (5-溴-1,2-二氯-3-丙烷-2-基氧基苯)的合成

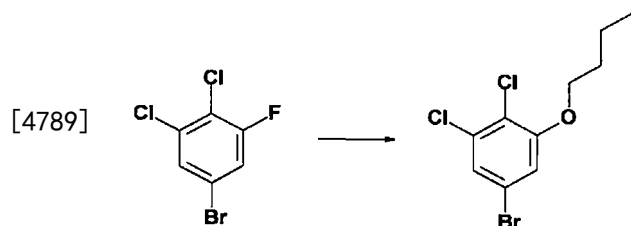


[4785] 在冰冷却下, 将5-溴-1,2-二氯-3-氟苯 (200mg, 0.820mmol) 和2-丙醇 (246mg, 4.10mmol) 的DMF溶液 (1.0mL) 冷却至0℃, 加入氢化钠 (NaH) (60%, 油性, 65.6mg, 1.64mmol)。在60℃下搅拌1小时后冷却至0℃, 加入氢化钠 (NaH) (60%, 油性, 10.0mg, 0.250mmol)。在60℃搅拌30分钟后冷却至室温, 加入饱和氯化铵水溶液, 用乙酸乙酯/正己烷=1/1进行萃取。用无水硫酸钠干燥并将其过滤除去, 在减压下蒸馏除去溶剂, 由此得到化合物2062-a (5-溴-1,2-二氯-3-丙烷-2-基氧基苯) (211mg, 91%)。

[4786] 保留时间: 1.11分钟 (分析条件SQDFA05)

[4787] $^1\text{H-NMR}$ (CDCl_3) δ : 7.22 (1H, d, $J=2.1\text{Hz}$), 6.97 (1H, dd, $J=2.1, 0.5\text{Hz}$), 4.58-4.51 (1H, m), 1.39 (6H, d, $J=6.2\text{Hz}$)。

[4788] 化合物2066-a (5-溴-1-丁氧基-2,3-二氯苯)的合成



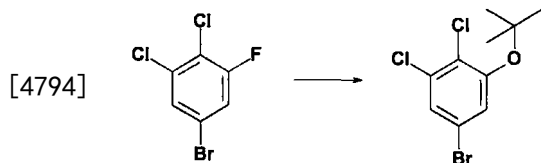
[4790] 利用与化合物2062-a相同的合成方法, 使用5-溴-1,2-二氯-3-氟苯和正丁醇, 得

到化合物2066-a (5-溴-1-丁氧基-2,3-二氯苯) (211mg, 86%)。

[4791] 保留时间: 1.19分钟 (分析条件SQDFA05)

[4792] $^1\text{H-NMR}$ (CDCl_3) δ : 7.22 (1H, d, $J=2.1\text{Hz}$), 6.95 (1H, d, $J=2.1\text{Hz}$), 4.01 (2H, t, $J=6.4\text{Hz}$), 1.86-1.79 (2H, m), 1.57-1.48 (2H, m), 0.99 (3H, t, $J=7.4\text{Hz}$)。

[4793] 化合物2082-a (5-溴-1,2-二氯-3-[(2-甲基丙烷-2-基)氧基]苯)的合成



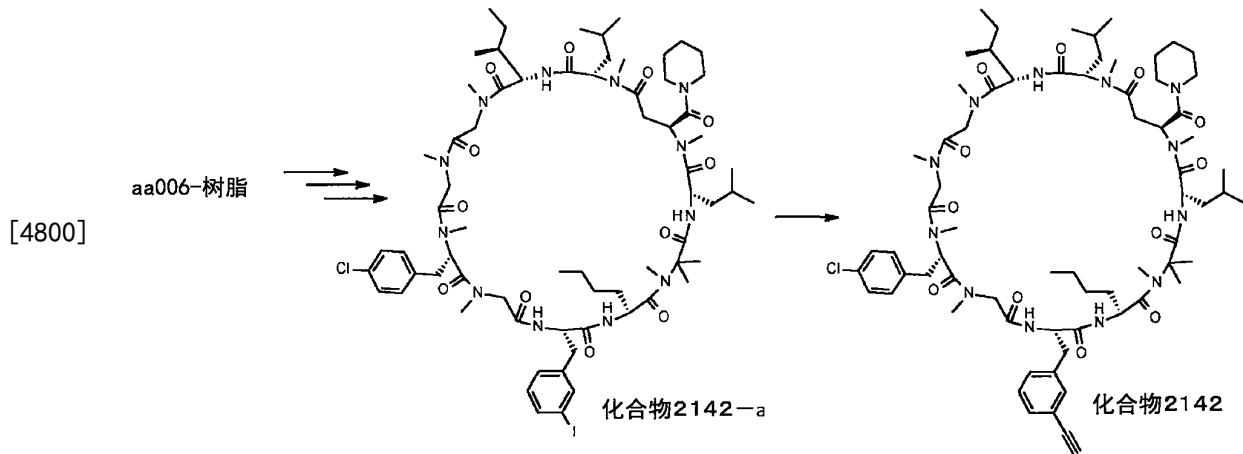
[4795] 在冰冷却下, 将5-溴-1,2-二氯-3-氟苯 (200mg, 0.820mmol) 和叔丁醇 (304mg, 4.10mmol) 的DMF溶液 (1.0mL) 冷却至 0°C , 加入氢化钠 (NaH) (60%, 油性, 49.2mg, 1.23mmol)。在 60°C 下搅拌1.5小时后在冰冷却下冷却至 0°C , 加入氢化钠 (NaH) (60%, 油性, 49.2mg, 1.23mmol)。在 60°C 下搅拌30分钟后冷却至室温, 加入水 (100 μL)。然后利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化反应溶液, 将分离组分冷冻干燥, 由此得到化合物2082-a (5-溴-1,2-二氯-3-[(2-甲基丙烷-2-基)氧基]苯) (127mg, 52%)。

[4796] 保留时间: 1.15分钟 (分析条件SQDFA05)

[4797] $^1\text{H-NMR}$ (CDCl_3) δ : 7.34 (1H, d, $J=2.1\text{Hz}$), 7.18 (1H, d, $J=2.1\text{Hz}$), 1.44 (9H, s)

[4798] 1-4-4. 基于菌头偶合反应的肽修饰

[4799] 化合物2142 ((3S, 9S, 12S, 18S, 27S, 30S, 34S) -9-丁基-18-[(4-氯苯基)甲基]-12-[(3-乙炔基苯基)甲基]-3,30-二异丁基-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-34-(哌啶-1-羰基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮)的合成



[4801] 使用化合物aa006-树脂 ((3S) -3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip) (400mg, 0.436mmol/g, 0.1744mmol) 作为原料, 利用本实施例中记载的基本的肽合成法进行肽合成, 得到化合物2142-a (123.7mg, 49%)。

[4802] LCMS (ESI) $m/z=1443.6$ (M+H) $^{+}$

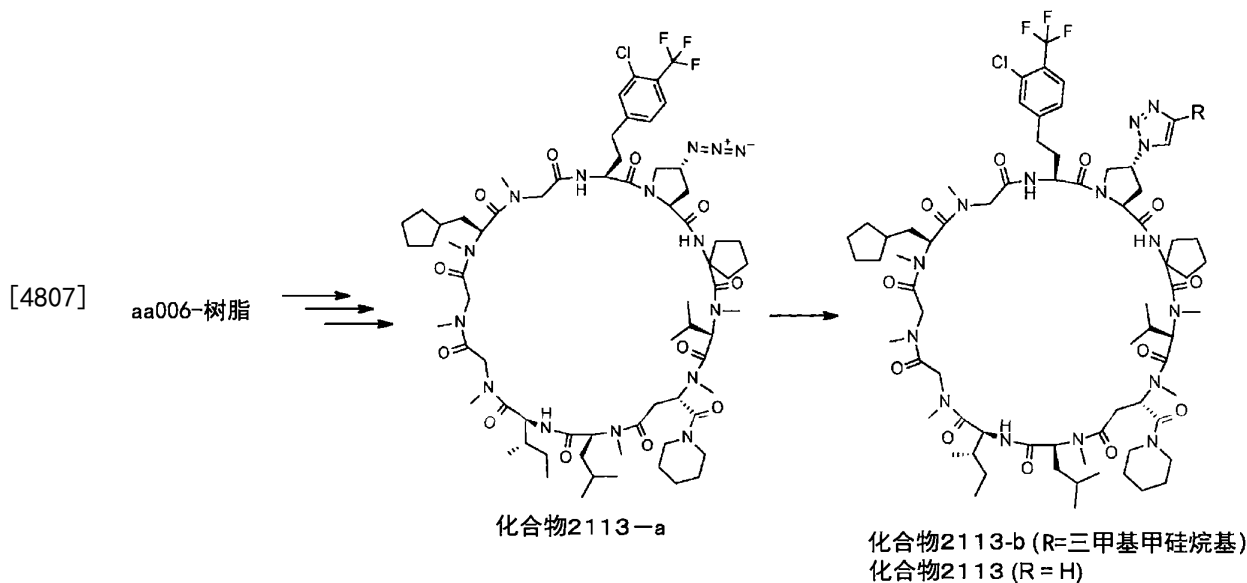
[4803] 保留时间: 1.06分钟 (分析条件SQDFA05)

[4804] 向化合物2142-a (30mg, 0.021mmol)、双(三苯基膦)二氯化钨(II) (7.3mg, 0.5当

量)、碘化铜(I) (4mg, 1当量)的DMF (208μL)的混合液中添加三乙胺 (0.145mL, 50当量)、三甲基硅烷基乙炔 (35.2μL, 12当量), 在室温下搅拌30分钟。将反应液的一半量利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 进行纯化。向所得分离组分中加入碳酸钾 (相对于原料肽为6当量)、水 (相对于原料肽为6当量), 进行减压浓缩。向残渣中添加甲醇 (500μL) 和水 (50μL), 确认三甲基硅烷基的脱保护后, 将所得反应溶液减压浓缩。将残渣溶解于DMSO (1mL) 中, 然后利用反相色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化, 将含有目标物的分离组分冷冻干燥。将残渣溶解于DMSO (1mL) 中, 然后再次减压浓缩, 由此得到化合物2142 ((3S, 9S, 12S, 18S, 27S, 30S, 34S) -9-丁基-18-[(4-氯苯基) 甲基]-12-[(3-乙炔基苯基) 甲基]-3, 30-二异丁基-1, 6, 6, 7, 16, 19, 22, 25, 31-九甲基-27-[(1S) -1-甲基丙基]-34-(哌啶-1-羰基)-1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31-十一氮杂环三十四烷-2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32-十一酮) (1.6mg, 6%)。LC/MS数据记载于表22中。

[4805] 1-4-5. 基于点击化学的肽修饰

[4806] 化合物2113 ((3S, 9S, 18S, 21S, 25S, 28S, 34S, 36R) -3-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7, 10, 13, 16, 22, 26, 29-七甲基-18-[(1S) -1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基) 螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) 的合成



[4808] 使用化合物aa006-树脂 ((3S) -3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -pip) (100mg, 0.37mmol/g, 0.037mmol) 作为原料, 并且使用 (2S, 4R) -4-叠氮基-1-Fmoc-吡咯烷-2-甲酸 (Fmoc-L-Pro (4-N3) -OH (2S, 4R), CAS号702679-55-8) 作为Fmoc氨基酸, 利用本实施例中记载的基本的肽合成法进行肽合成, 得到化合物2113-a (5.4mg, 10%)。

[4809] LCMS (ESI) $m/z = 1428.97 (M+H)^+$

[4810] 保留时间: 1.05分钟 (分析条件SQDFA05)

[4811] 在氮气气氛下, 向化合物2113-a (5.4mg, 3.8μmol) 中添加碘化铜(I) (3mg, 15.75μmol)、乙腈 (0.5mL)、DIPEA (50μL, 286μmol) 以及三甲基硅烷基乙炔 (50μL, 0.361mmol), 在

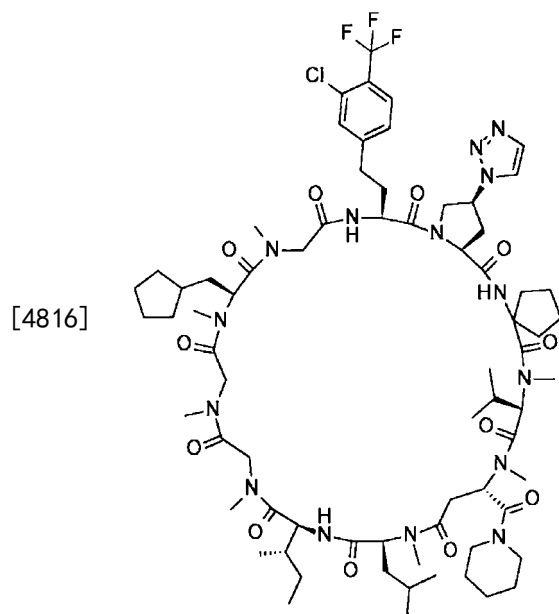
室温下搅拌16小时。用硅藻土过滤反应混合物,用乙腈洗涤后,减压浓缩。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得粗产物,得到化合物2113-b (6.4mg, quant.)。

[4812] LCMS (ESI) $m/z = 1527.06 (M+H)^+$

[4813] 保留时间:1.10分钟(分析条件SQDFA05)

[4814] 将化合物2113-b (6.4mg) 溶解于1,4-二噁烷 (1mL) 中,添加四丁基氟化铵 (TBAF) 的 THF 溶液 (1M, 0.5mL, 0.5mmol)。将反应混合物在室温下搅拌162小时后,减压浓缩。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得粗产物,得到化合物 2113 ((3S,9S,18S,21S,25S,28S,34S,36R) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (4.6mg, 2个工序84%)。LC/MS数据记载于表22中。

[4815] 化合物2115 ((3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



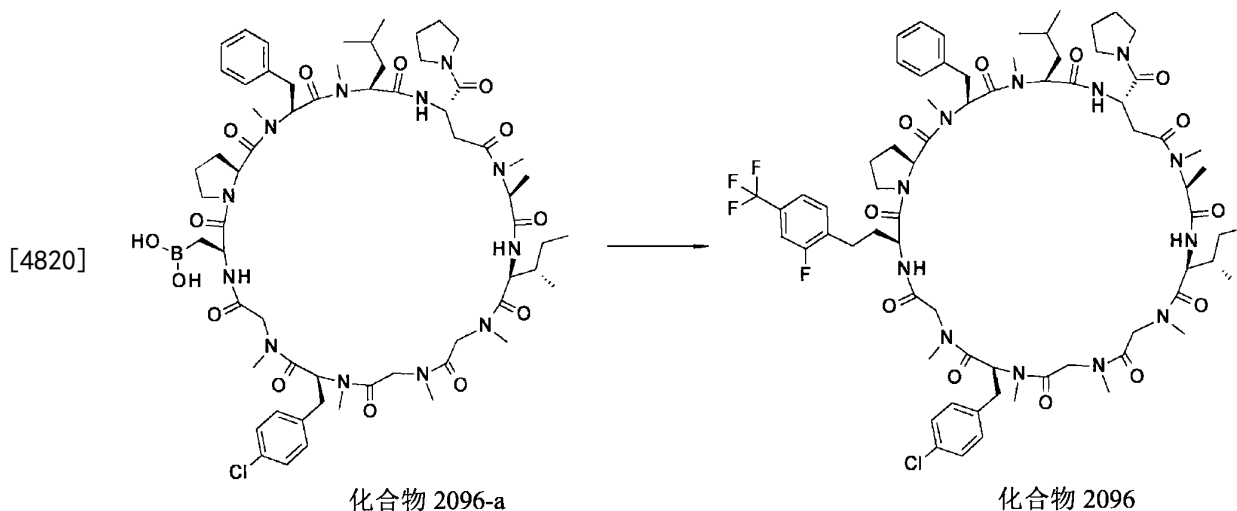
化合物 2115

[4817] 使用化合物aa006-树脂 ((3S) -3-[9H-苄-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp (O-Trt (2-Cl) resin) -pip) 作为基于本实施例记载的基本的肽合成法进行的肽合成的起始原料,并且使用 (2S,4S) -4-叠氮基-1-Fmoc-吡咯烷-2-甲酸 (Fmoc-L-Pro (4-N3) -OH (2S,4S), CAS号263847-08-1) 作为Fmoc氨基酸,利用与化合物2113的合成相同的方法,得到化合物2115 ((3S,9S,18S,21S,25S,28S,34S,36S) -3-[2-[3-氯-4-(三氟甲基)苯基]乙基]-9-(环戊基甲基)-21-异丁基-28-异丙基-7,10,13,16,22,26,29-七甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-36-(三唑-1-基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊

烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (8.0mg)。LC/MS数据记载于表22中。

[4818] 1-4-6. 基于铃木偶合的肽修饰

[4819] 化合物2096 ((3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-3-[2-[2-氟-4-(三氟甲基)苯基]乙基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



[4821] 使用化合物aa018-树脂 ((3S)-3-(9H-芴-9-基甲氧基羰基氨基)-4-氧代-4-吡咯烷-1-基丁酸-2-氯三苯甲酯树脂 (Fmoc-Asp(O-Trt(2-Cl))-resin)-pyrro) 作为原料, 基于本实施例记载的基本的肽合成法进行肽合成, 得到化合物2096-a (157mg)。

[4822] LCMS (ESI) $m/z = 1273.3$ (M-H) -

[4823] 保留时间: 0.74分钟 (分析条件SQDFA05)

[4824] 在氮气气氛下, 向化合物2096-a (15mg, 0.012mmol)、碳酸铯 (55.1mg, 0.118mmol) 和RuPhos Pd G4 (CAS号1599466-85-9, 30mg, 0.035mmol) 的水/THF (1/10, 0.235mL) 混合溶液中加入1-(溴甲基)-2-氟-4-(三氟甲基)苯 (24.2mg, 0.094mmol), 然后在70℃搅拌18小时。用硅藻土过滤反应液后, 利用反相柱色谱 (C18, 甲醇/10mM乙酸铵水溶液以及0.3%甲酸/乙腈/水) 纯化, 得到化合物2096 ((3S,9S,18S,21S,25S,28S,31S,34S)-31-苄基-9-[(4-氯苯基)甲基]-3-[2-[2-氟-4-(三氟甲基)苯基]乙基]-28-异丁基-7,10,13,16,21,22,29,32-八甲基-18-[(1S)-1-甲基丙基]-25-(吡咯烷-1-羰基)-1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-2,5,8,11,14,17,20,23,27,30,33-十一酮) (14.1mg, 71%)。LC/MS数据记载于表22中。

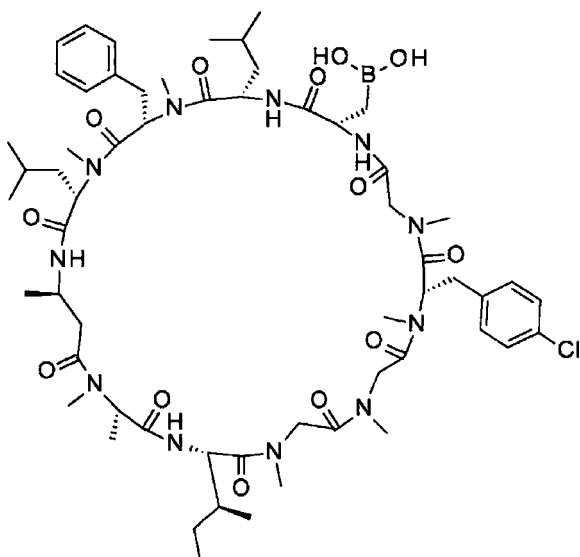
[4825] 化合物2093、化合物2091、化合物2087、化合物2094、化合物2086、化合物2089、化合物2092、化合物2090、化合物2088、化合物2095的合成

[4826] 使用化合物aa138-树脂 ((3R)-3-(9H-芴-9-基甲氧基羰基氨基)丁酸-2-氯三苯甲酯树脂、Fmoc-D-3-Abu-O-Trt(2-Cl) resin) 作为原料, 基于本实施例记载的基本的肽合成法进行肽合成而得到化合物2093-a (312mg)。

[4827] LCMS (ESI) $m/z = 1188.4$ (M-H) - (以脱H₂O体的形式被检出)

[4828] 保留时间: 2.84分钟 (分析条件SQDFA30long50deg)

[4829]



化合物 2093-a

[4830] 利用与化合物2096相同的合成法,使用化合物2093-a作为原料并使用以下所示的苄基溴化物(相对于原料肽为8当量),得到化合物2093、化合物2091、化合物2087、化合物2094、化合物2086、化合物2089、化合物2092、化合物2090、化合物2088、化合物2095。下表中记载了目标物肽、用于反应的苄基溴化物、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4831] [表17]

[4832]

目标物	苄基溴化物	产量 mg	产率 %
化合物 2 0 9 3	1-(溴甲基)-3-氟-4-(三氟甲基)苯	5.6	34
化合物 2 0 9 1	1-(溴甲基)-2,3,4,5,6,-五氟苯	9	54
化合物 2 0 8 7	1-(溴甲基)-2,4,5-三氟苯	5.3	33
化合物 2 0 9 4	2-(溴甲基)-4-氯-1-氟苯	5.8	35
化合物 2 0 8 6	1-(溴甲基)-4-氯-2-氟苯	2.6	16
化合物 2 0 8 9	1-(溴甲基)-2,4-二氟苯	1.7	11
化合物 2 0 9 2	2-(溴甲基)-1-氯-3-氟苯	0.7	4.6
化合物 2 0 9 0	2-(溴甲基)-1,3,5-三氟苯	7	43
化合物 2 0 8 8	4-(溴甲基)-2-氯-1-(三氟甲基)苯	3.8	22
化合物 2 0 9 5	1-(溴甲基)-3-(三氟甲基)苯	1.4	8.8

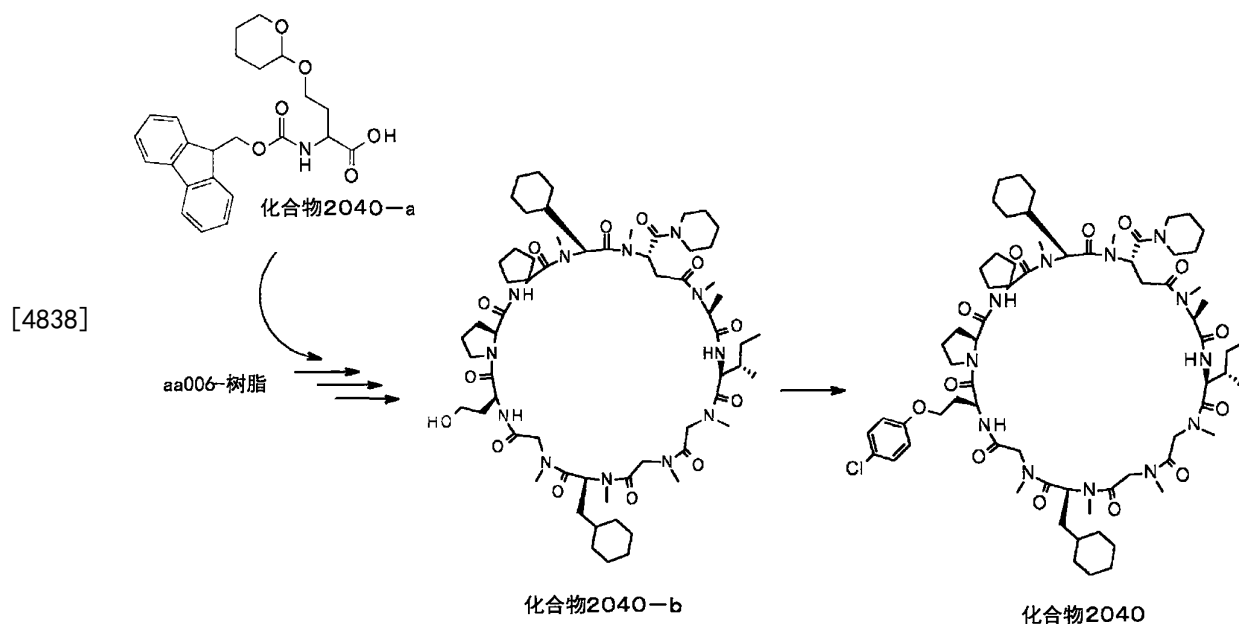
[4833] 1-4-6. 基于Chan-Lam-Evans偶联的肽修饰

[4834] 下面示出了用于对应目标物的反应的2,4,6-三芳基硼氧烷-吡啶络合物的结构式。这些2,4,6-三芳基硼氧烷-吡啶络合物是参考J.Org.Chem.2004,69,5087-5092合成的。

[4835] [表18]

目标物	2, 4, 6-三芳基硼氧烷-吡啶络合物
化合物2040 化合物2042	
化合物2039	
化合物2041	
化合物2114	

[4837] 化合物2040((3S,9S,18S,21S,25S,28S,34S)-3-[2-(4-氯苯氧基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



[4839] 向2-(9H-芴-9-基甲氧基羰基氨基)-4-羟基丁酸(Fmoc-Hse-OH) (2.56g, 7.5mmol) 的THF (15mL) 混合液中加入PPTS (94mg, 0.375mmol)、3,4-二氢吡喃 (4.75mL, 52.5mmol), 在50℃下搅拌16小时。向反应液中加入乙酸乙酯, 用饱和食盐水洗涤3次, 将有机层用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂, 得到化合物2040-a与进而羧酸被THP化而得的化合物的混合物。所得粗产物不经过进一步纯化地用于下一步反应中。

[4840] 将上述所得粗产物的全部量溶解于THF (30mL) 中, 加入磷酸氢二钠水溶液 (1M, 30mL), 在50℃下搅拌4小时。将反应液用乙酸乙酯萃取, 将有机层用饱和食盐水洗涤, 然后用无水硫酸钠干燥, 在减压下蒸馏除去溶剂, 由此得到化合物2040-a (3.6g, quant.)。所得粗产物不经过进一步纯化地用于下一步反应中。

[4841] LCMS (ESI) $m/z = 448 (M+Na)^+$

[4842] 保留时间: 0.82分钟 (分析条件SQDFA05)

[4843] 使用化合物aa006-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt (2-Cl) resin)-pip) (1.6g) 作为原料, 并且使用上述得到的化合物2040-a作为Fmoc氨基酸, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物2040-b (410mg)。

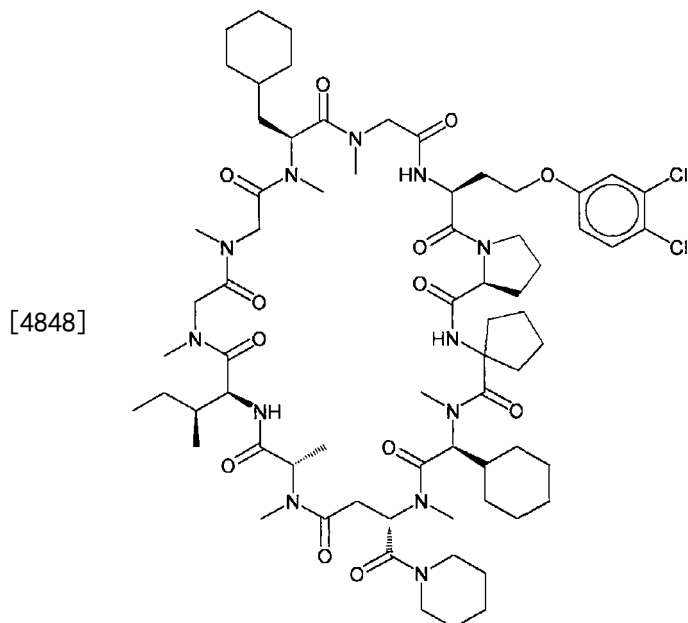
[4844] LCMS (ESI) $m/z = 1238.1 (M-H)^-$

[4845] 保留时间: 0.81分钟 (分析条件SQDFA05)

[4846] 向化合物2040-b (15mg, 0.012mmol) 的1,2-二氯乙烷溶液 (225μL, 0.05mol/L) 中加入DIPEA (8当量)、乙酸铜(II) (4当量)、2,4,6-三芳基硼氧烷-吡啶络合物 (1.7当量)、分子筛4A (3.3w/w) 后, 在氧气气氛、室温下反应过夜。将反应液浓缩后, 利用反相柱色谱 (C18, 甲醇/10mM乙酸铵水溶液) 进行粗纯化。将所得残渣利用制备型HPLC进行纯化, 得到化合物2040 ((3S, 9S, 18S, 21S, 25S, 28S, 34S)-3-[2-(4-氯苯氧基)乙基]-28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (3.3mg, 22%)。LC/MS数据记载于表22中。

[4847] 化合物2039 ((3S, 9S, 18S, 21S, 25S, 28S, 34S)-28-环己基-9-(环己基甲基)-3-[2-

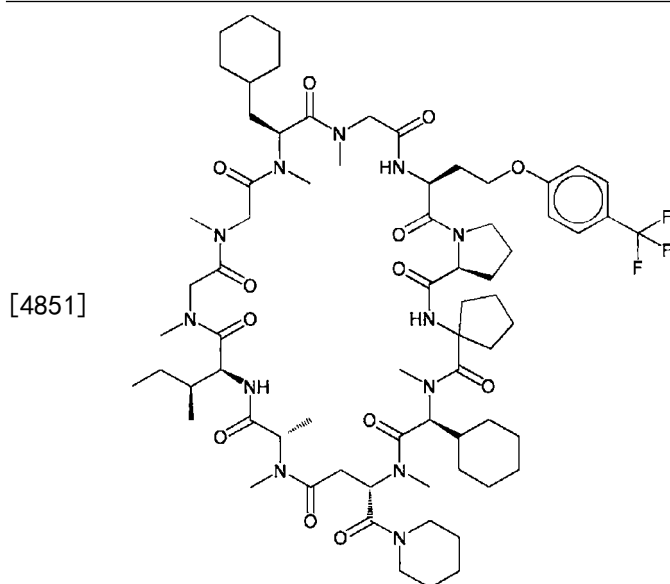
(3,4-二氯苯氧基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



化合物 2039

[4849] 使用化合物2040-b (15mg, 0.012mmol) 作为原料, 利用与化合物2040的合成相同的方法, 得到化合物2039 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -28-环己基-9-(环己基甲基)-3-[2-(3,4-二氯苯氧基)乙基]-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮) (1.3mg, 7.5%)。LC/MS数据记载于表22中。

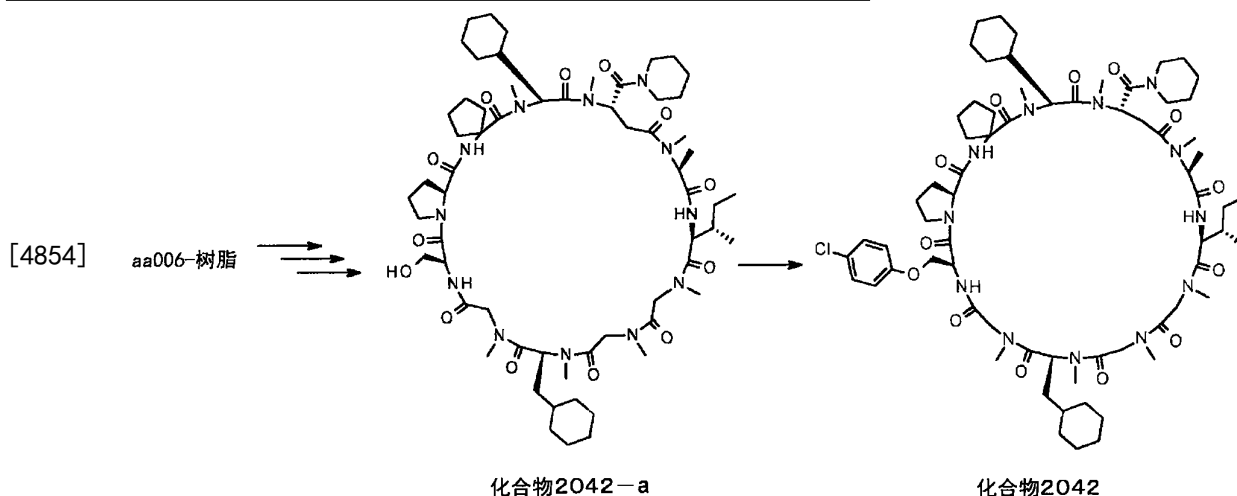
[4850] 化合物2041 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -28-环己基-9-(环己基甲基)-7,10,13,16,21,22,26,29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯氧基]乙基]螺[1,4,7,10,13,16,19,22,26,29,32-十一氮杂双环[32.3.0]三十七烷-31,1'-环戊烷]-2,5,8,11,14,17,20,23,27,30,33-十一酮)的合成



化合物 2041

[4852] 使用化合物2040-b (15mg, 0.012mmol) 作为原料, 利用与化合物2040的合成相同的方法, 得到化合物2041 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -28-环己基-9-(环己基甲基)-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[2-[4-(三氟甲基)苯氧基]乙基]螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) (2.1mg, 13%), LC/MS数据记载于表22中。

[4853] 化合物2042 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -3-[(4-氯苯氧基)甲基]-28-环己基-9-(环己基甲基)-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮)的合成



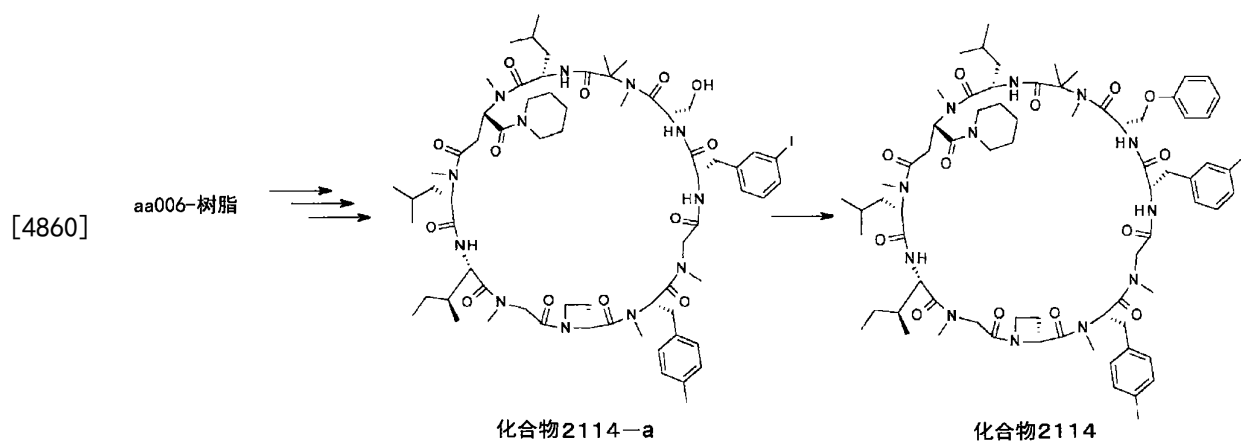
[4855] 使用化合物aa006-树脂 ((3S) -3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(0-Trt(2-Cl)resin)-pip (1.6g) 作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物2042-a (230mg)。

[4856] LCMS (ESI) $m/z = 1224.1$ (M+H) +

[4857] 保留时间: 0.82分钟 (分析条件SQDFA05)

[4858] 使用化合物2042-a (15mg, 12 μ mol) 作为原料, 利用与化合物2040的合成相同的方法, 得到化合物2042 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -3-[(4-氯苯氧基)甲基]-28-环己基-9-(环己基甲基)-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) (2.56mg, 16%), LC/MS数据记载于表22中。

[4859] 化合物2114 ((6S, 9S, 13S, 16S, 22S, 25S, 31S, 34S) -25-[(3-碘苯基)甲基]-9, 16-二异丁基-4, 10, 14, 19, 19, 20, 29, 32-八甲基-6-[(1S)-1-甲基丙基]-22-(苯氧基甲基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1, 4, 7, 10, 14, 17, 20, 23, 26, 29, 32-十一氮杂双环[32.2.0]三十六烷-2, 5, 8, 11, 15, 18, 21, 24, 27, 30, 33-十一酮)的合成



[4861] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.4g, 0.3mmol/g, 0.12mmol)作为原料,利用本实施例记载的基本的肽合成法进行肽合成,得到化合物2114-a(60mg, 36%)。

[4862] LCMS (ESI) $m/z = 1409.6 (M+H)^+$

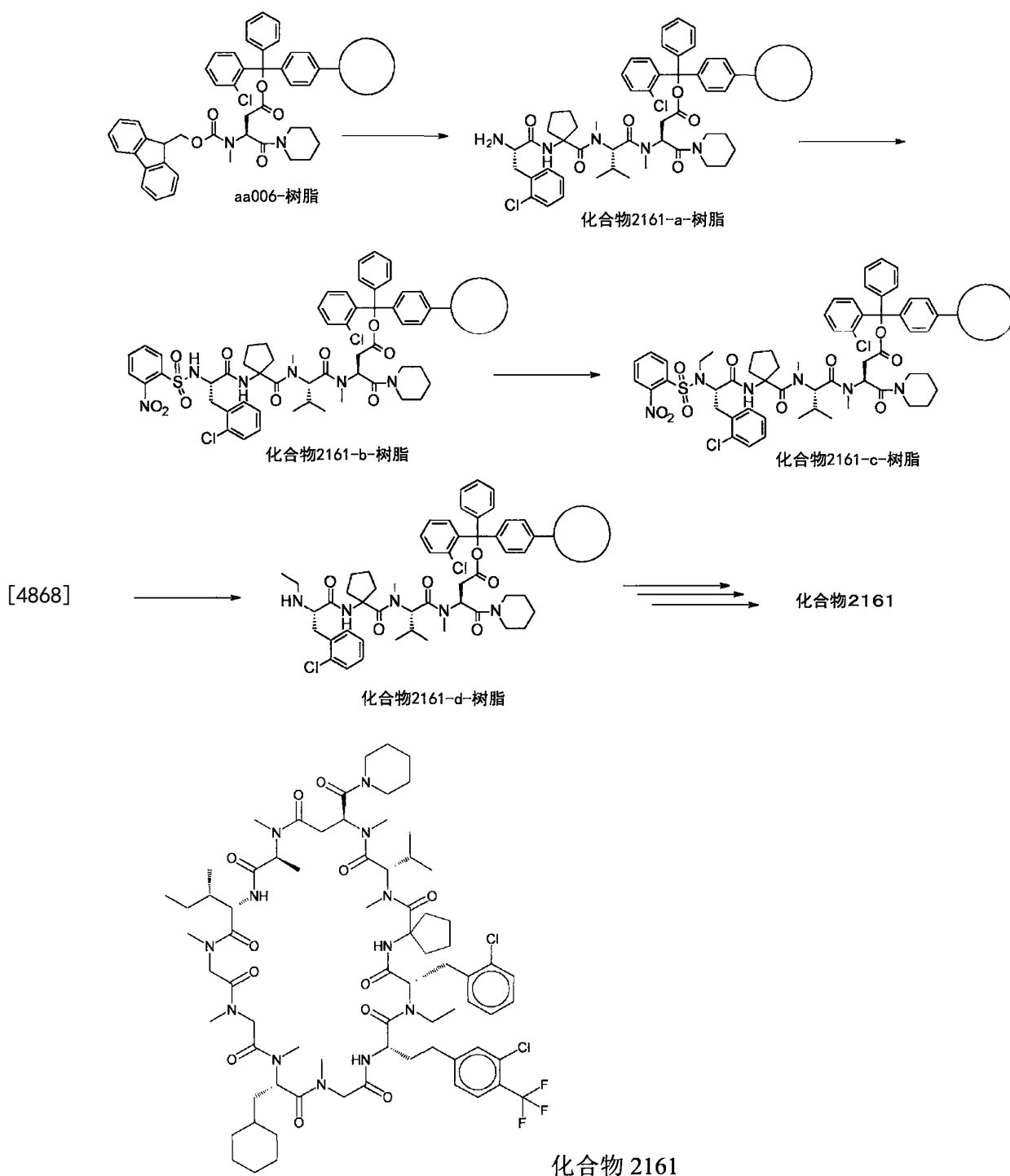
[4863] 保留时间:0.92分钟(分析条件SQDFA05)

[4864] 使用化合物2114-a(5mg, 3.55 μ mol)作为原料,利用与化合物2040的合成相同的方法,得到化合物2114((6S, 9S, 13S, 16S, 22S, 25S, 31S, 34S)-25-[(3-碘苯基)甲基]-9,16-二异丁基-4,10,14,19,19,20,29,32-八甲基-6-[(1S)-1-甲基丙基]-22-(苯氧基甲基)-13-(哌啶-1-羰基)-31-(对甲苯基甲基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-2,5,8,11,15,18,21,24,27,30,33-十一酮)(1.53mg, 29%)。LC/MS数据记载于表22中。

[4865] 1-4-7.通过基于树脂上的光延反应的N-烷基化进行的肽合成

[4866] 化合物2161((8S, 11S, 17S, 26S, 29S, 33S, 36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15,18,21,24,29,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)的合成

[4867] 化合物2161的合成是按照以下路线合成的。



[4869] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(100mg, 0.462mmol/g, 0.0462mmol)作为原料,利用本实施例记载的基本的肽合成法进行肽合成,得到化合物2161-a-树脂。

[4870] 向上述得到的化合物2161-a-树脂中加入邻硝基苯磺酰氯/THF溶液(0.2mmol, 0.35mL)和可力丁/THF溶液(0.5mmol, 0.35mL),在40℃下振荡2个小时。然后将树脂用THF(0.7mL)洗涤4次,接着用DCM(0.7mL)洗涤4次,得到化合物2161-b-树脂。将所得树脂的一部分用TFE/DCM(1/1)切割并通过LC/MS进行分析以确认反应进程。

[4871] LCMS (ESI) $m/z = 805 (M+H)^+$

[4872] 保留时间:0.79分钟(分析条件SQDFA05)

[4873] 向上述得到的化合物2161-b-树脂中加入DCM (1.0mL) 而使树脂溶胀,用THF (0.7mL) 洗涤4次后,加入三苯膦/THF溶液 (66.0mg/0.7mL, 0.25mmol)、乙醇 (0.024mL, 0.41mmol) 和偶氮二甲酸二异丙酯 (DIAD) (0.05mL, 0.26mmol), 在40℃下振荡30分钟。然后,将树脂用THF (0.7mL) 洗涤4次,接着用DCM (0.7mL) 洗涤4次,得到化合物2161-c-树脂。将所得树脂的一部分用TFE/DCM (1/1) 切割并通过LC/MS进行分析以确认反应进程。

[4874] LCMS (ESI) $m/z = 833 (M+H)^+$

[4875] 保留时间:0.88分钟(分析条件SQDFA05)

[4876] 向上述得到的化合物2161-c-树脂中加入DCM (1.0mL) 而使树脂溶胀,用NMP (0.7mL) 洗涤4次后,加入DBU/NMP溶液 (36μL/314μL) 和1-十二烷硫醇/NMP溶液 (89μL/261μL), 在40℃下振荡1小时。然后将树脂用NMP (0.7mL) 洗涤4次,接着用DCM (0.7mL) 洗涤4次,得到化合物2161-d-树脂。将所得树脂的一部分用TFE/DCM (1/1) 切割并通过LC/MS进行分析以确认反应进程。

[4877] LCMS (ESI) $m/z = 648 (M+H)^+$

[4878] 保留时间:0.51分钟(分析条件SQDFA05)

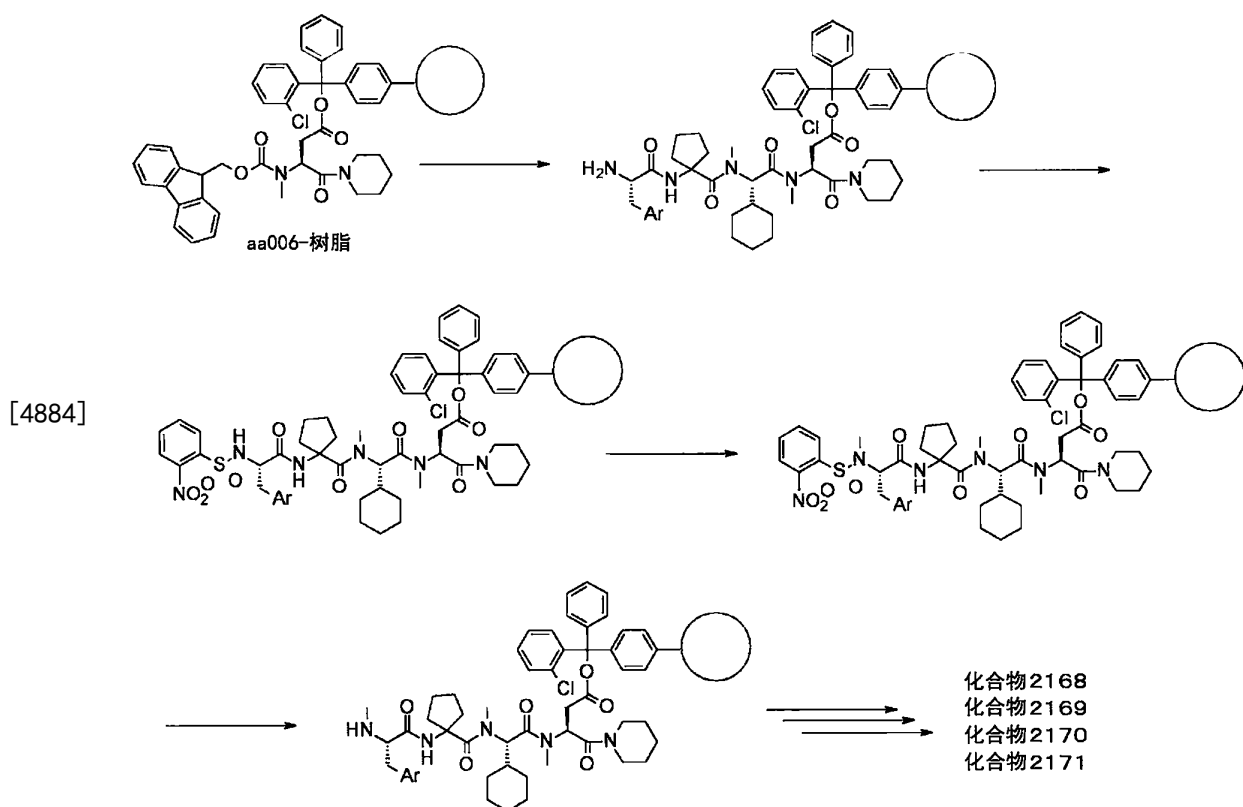
[4879] 使用上述得到的化合物2161-d-树脂按照基本路线进行肽链的延长和环化肽的合成,得到化合物2161((8S, 11S, 17S, 26S, 29S, 33S, 36S)-8-[(2-氯苯基)甲基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-17-(环己基甲基)-9-乙基-36-异丙基-15, 18, 21, 24, 29, 30, 34, 37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) (5.5mg, 8%)。LC/MS数据记载于表22中。

[4880] 化合物2162-化合物2167的合成

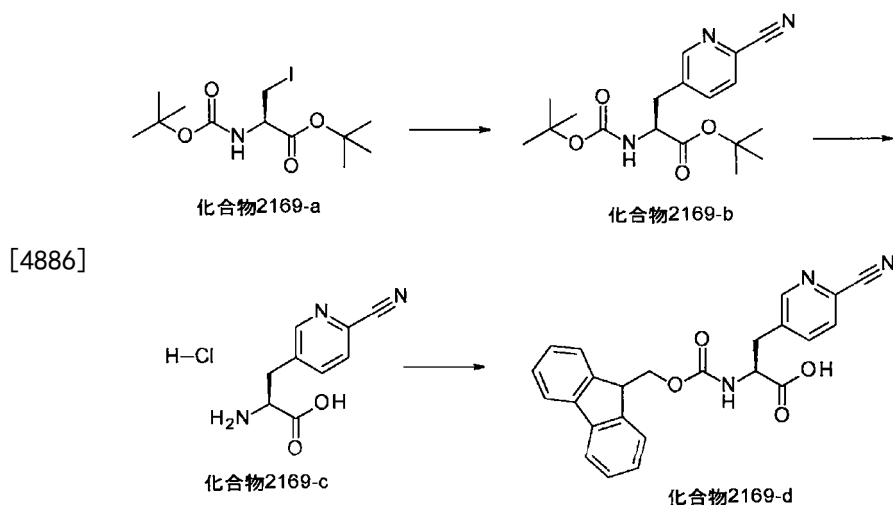
[4881] 对于化合物2162-化合物2167的合成,与化合物2161的合成法相同地进行。LC/MS数据记载于表22中。

[4882] 化合物2168-化合物2171的合成

[4883] 对于化合物2168-化合物2171的合成,按照下面所示的基本简图,与化合物2161的合成法相同地,在光延反应中代替乙醇而使用甲醇 (0.019mL, 0.47mmol) 来进行。



[4885] 按照下面简图合成用于化合物2169的合成的、侧链上具有吡啶环的Fmoc氨基酸。



[4887] 在氮气气氛、室温下,将根据W02018/225864记载的方法合成的化合物2169-a (5g, 13.47mmol)、锌粉 (2.63g, 40.46mmol)、碘 (515mg, 2.03mmol) 的DMF (15mL) 混合液搅拌2小时。向溶液中加入5-溴吡啶-2-甲腈 (3.19g, 17.43mmol)、三(二亚苄基丙酮)(氯仿)二钯(0) (350mg, 0.34mmol)、2-二环己基膦基-2',4',6'-三异丙基联苯(Xphos) (321mg, 0.67mmol), 在50℃下搅拌3小时。利用硅胶柱色谱(乙酸乙酯/石油醚)纯化反应液,得到化合物2169-b (2.5g, 53%)。将其与以相同方式合成的另一批混合并用于下一步反应。

[4888] LCMS (ESI) $m/z = 348 (M+H)^+$

[4889] 保留时间: 1.508分钟 (分析条件SMDmethod23)

[4890] 对于化合物2169-b (12g, 34.54mmol) 的二氯甲烷 (100mL) 溶液, 在25℃下边吹入盐酸气体边搅拌2小时。过滤收集析出的固体, 得到化合物2169-c的粗产物 (7.83g, 100%)。不

进行进一步的纯化地用于下一步反应中。

[4891] 向化合物2169-c (2.4g, 10.54mmol) 和碳酸钾 (3.77g, 27.28mmol) 的水溶液 (34mL) 中加入Fmoc-OSu (3.06g, 10.54mmol) 的1,4-二噁烷 (34mL) 溶液, 在0℃下搅拌1小时。将反应液用水稀释, 用乙醚洗涤3次。用饱和硫酸氢钾水溶液将所得水层的pH值调节至5~6的范围, 用乙酸乙酯萃取。将有机层用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂, 利用硅胶柱色谱 (二氯甲烷/甲醇) 纯化所得残渣, 得到化合物2169-d (1g, 23%)。

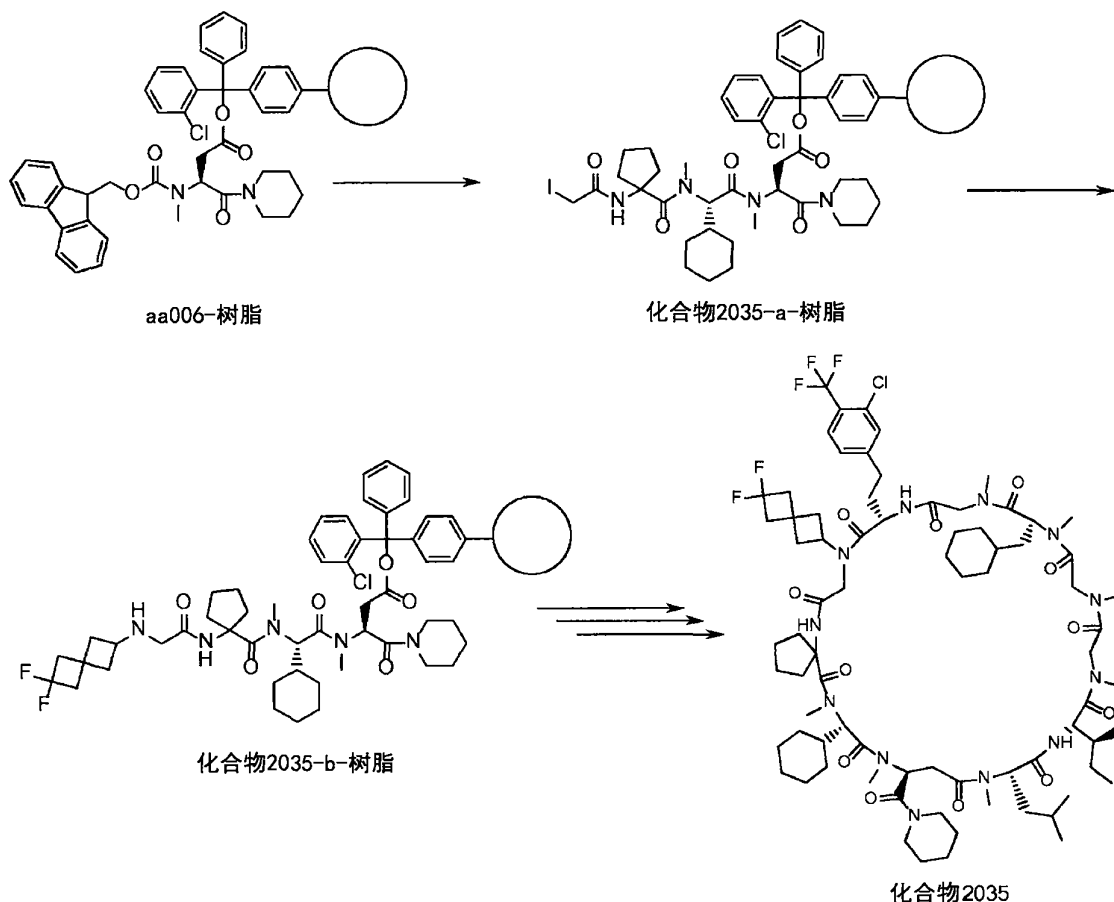
[4892] LCMS (ESI) $m/z = 414.2$ (M+H) +

[4893] 洗脱时间: 2.737分钟 (分析条件SMDmethod_22)

[4894] 在化合物2170的合成中, 根据W02018/225864的记载合成 (9H-芴-9-基甲氧基羰基氨基)-3-[3-氟-4-[(2-甲基丙烷-2-基)氧基]苯基]丙酸 (Fmoc-Tyr (3-F, tBu)-OH) 并将其用作Fmo氨基酸。苯酚的tBu基的脱保护通过在环化反应后的残渣中加入含有2%三异丙基硅烷 (TIPS) 的0.1M四甲基硫酸氢铵/1,1,1,3,3,3-六氟异丙醇 (HFIP) 溶液2mL并在室温下静置24小时来进行。

[4895] 1-4-8. 通过树脂上的氨基化进行的肽合成

[4896] 化合物2035 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2,2-二氟螺[3.3]庚烷-6-基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) 的合成



[4897]

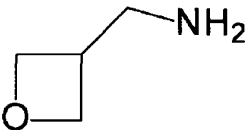
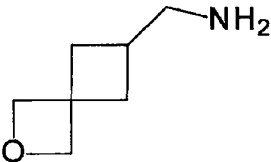
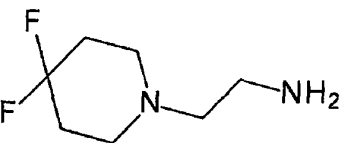
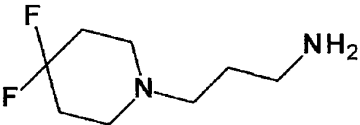
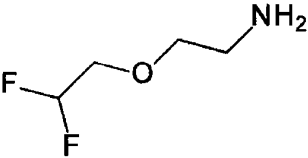
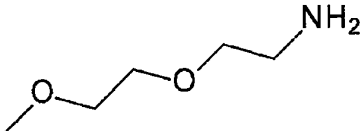
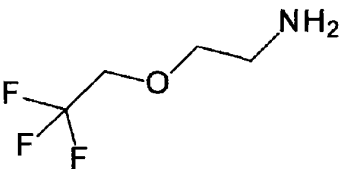
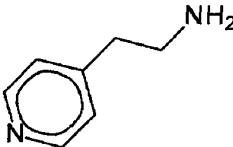
[4898] 使用化合物aa006-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-

4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip(100mg, 0.437mmol/g, 0.0437mmol) 作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 接着Fmoc-MeChg-OH进行Fmoc-cLeu-OH的延长以及Fmoc基的脱保护, 然后使用碘乙酸(0.6mol/L, 0.3mL)的NMP/DMF(1/1)溶液和二异丙基碳二亚胺(DIC)的N,N-二甲基甲酰胺(DMF)溶液(10%v/v, 0.36mL)的混合液, 得到树脂上的肽的N末端被碘化的化合物2035-a-树脂。进而在DIPEA的存在下与6,6-二氟螺[3.3]庚烷-2-胺盐酸盐反应, 得到化合物2035-b-树脂。之后的肽链延伸和环化肽的合成是按照基本路线进行, 得到化合物2035((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2,2-二氟螺[3.3]庚烷-6-基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)(4.12mg, 6%)。LC/MS数据记载于表22中。

[4899] 化合物2031、化合物2030、化合物2022、化合物2021、化合物2036、化合物2025、化合物2024、化合物2029、化合物2032、化合物2033、化合物2026、化合物2023、化合物2028、化合物2027、化合物2034的合成

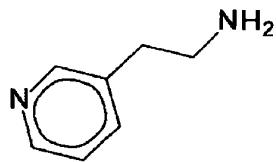
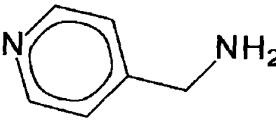
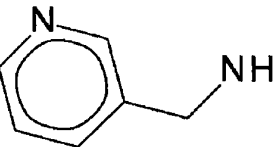
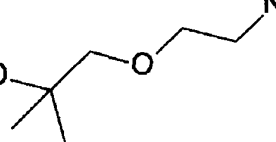
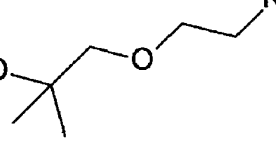
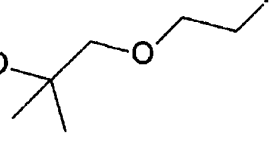
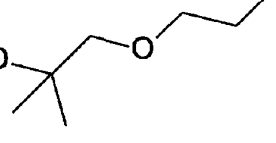
[4900] 采用与化合物2035的合成相同的方法合成负载有三肽的树脂, 然后进行碘乙酸的缩合和氨基化, 进而按照基本路线进行肽链延伸和环化肽的合成, 由此合成化合物2031、化合物2030、化合物2022、化合物2021、化合物2036、化合物2025、化合物2024、化合物2029、化合物2032、化合物2033、化合物2026、化合物2023、化合物2028、化合物2027、化合物2034。下表记载了目标物肽和用于反应的胺、目标物的产量(mg)。LC/MS数据记载于表22中。

[4901] [表19]

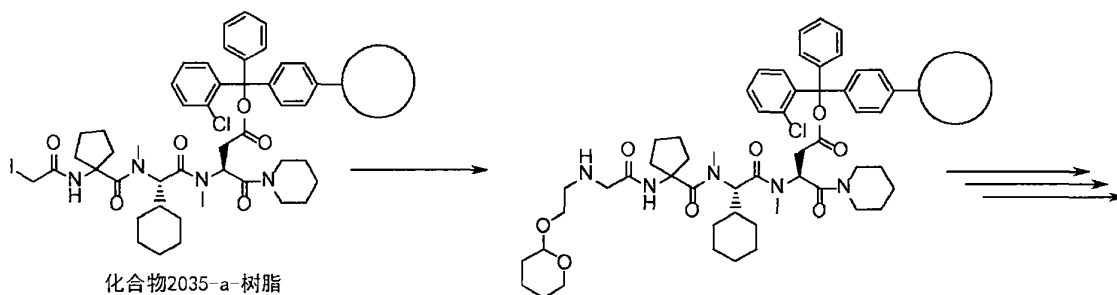
肽	胺	产量 mg
化合物 2031		5.09
化合物 2030		2.76
化合物 2022		10.32
化合物 2021		8.99
化合物 2036		5.06
化合物 2025		8.11
化合物 2024		2.99
化合物 2029		18.06

[4902]

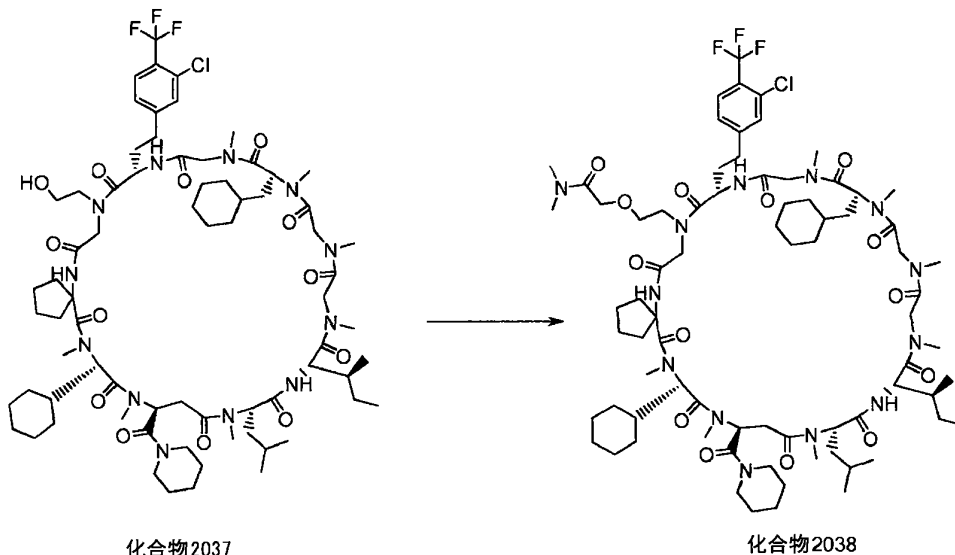
[4903]

化合物2032		16.68
化合物2033		9.24
化合物2026		14.51
化合物2023		3.39
化合物2028		4.78
化合物2027		5.34
化合物2034		4.99

[4904] 化合物2037 ((11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2-羟乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)和化合物2038 (2-[2-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]乙氧基]-N,N-二甲基-乙酰胺)



[4905]

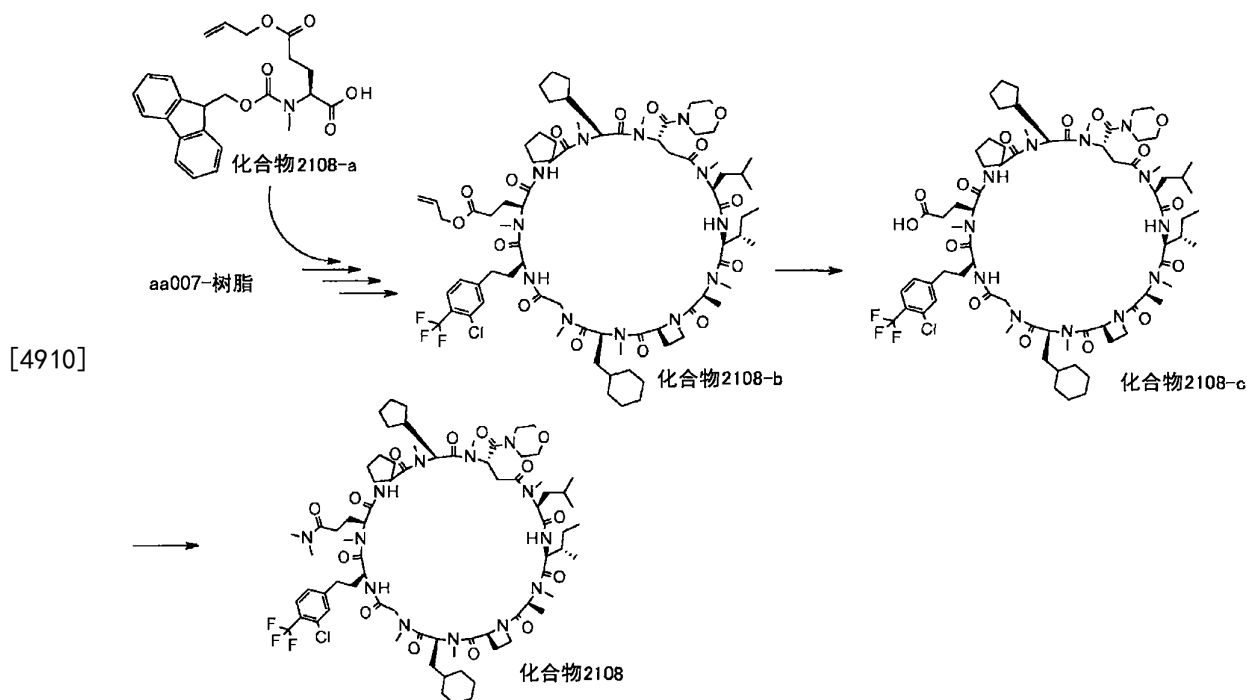


[4906] 使用化合物2035-a-树脂并按照与化合物2035的合成相同的方法,使用2-(2-氨基乙氧基)氧杂环己烷作为胺,按照基本路线进行肽链延伸以及包括THP脱保护的环化肽的合成,从而得到化合物2037((11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(2-羟乙基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)。LC/MS数据记载于表22中。

[4907] 使用化合物2037(5mg,3.46 μ mol)、氧化银(24.0mg,0.104mmol)和2-溴-N,N-二甲基乙酰胺(17.2mg,0.104mmol)实施与化合物2116的合成相同的方法,由此得到化合物2038(2-[2-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]乙氧基]-N,N-二甲基-乙酰胺)(4.7mg,89%)。LC/MS数据记载于表22中。

[4908] 1-4-9.通过羧酸的酰胺化进行的肽修饰

[4909] 化合物2108(3-[(3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3,4,10,14,17,23,29,32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-22-基]-N,N-二甲基-丙酰胺)的合成



[4911] 使用(2S)-2-(9H-芴-9-基甲氧基羰基氨基)-5-氧代-5-丙-2-烯氧基戊酸(Fmoc-Glu(OA1)-OH) (2.197g, 5.37mmol) 作为起始原料, 利用与化合物aa078-b的合成相同的方法得到化合物2108-a ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-氧代-5-丙-2-烯氧基戊酸) 的粗产物 (2.179g, 96%)。

[4912] LCMS (ESI) $m/z = 424 (M+H)^+$

[4913] 保留时间: 0.84分钟 (分析条件SQDFA05)

[4914] 使用化合物aa007-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-吗啉-4-基-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-mor) (0.424mmol/g, 600mg, 0.254mmol) 作为起始原料, 并使用化合物2108-a ((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-氧代-5-丙-2-烯氧基戊酸) 作为试剂, 利用本实施例记载的基本的肽合成法进行肽合成, 由此得到化合物2108-b的粗产物。

[4915] 将上述得到的化合物2108-b的全部量 (0.254mmol) 溶解于二氯甲烷 (2.5mL) 中, 加入四(三苯基膦) 钯 (14.7mg, 0.05当量) 和苯基硅烷 (22μL, 0.7当量), 在室温下搅拌75分钟。向该反应液中加入四(三苯基膦) 钯 (14.7mg, 0.05当量) 和苯基硅烷 (22μL, 0.7当量), 搅拌90分钟, 由此得到含有化合物2108-c的反应液。向其中加入HATU (193mg, 2当量) 的二甲基甲酰胺溶液 (2.5mL) 和二异丙基乙胺 (0.11mL, 2.4当量) 并搅拌15分钟。将该反应液 (反应液A) 分成六份, 其中一份用于随后的反应。

[4916] 将二甲胺 (0.11mL, 5当量, 2.0M四氢呋喃溶液) 加入到反应液A (0.0424mmol) 中, 在室温下搅拌30分钟。减压浓缩反应液, 利用制备型HPLC纯化所得残渣, 得到化合物2108 (3-[(3S, 6S, 9S, 13S, 16S, 22S, 25S, 31S, 34S)-25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-3, 4, 10, 14, 17, 23, 29, 32-八甲基-6-[(1S)-1-甲基丙基]-13-(吗啉-4-羰基)-2, 5, 8, 11, 15, 18, 21, 24, 27, 30, 33-十一氧代-螺[1, 4, 7, 10, 14, 17, 20, 23, 26, 29, 32-十一氮杂双环[32.2.0]三十六烷-19, 1'-环戊烷]-22-基]-N, N-二甲基-丙酰胺) (3.6mg, 5.6%)。LC/MS数据记载于表22中。

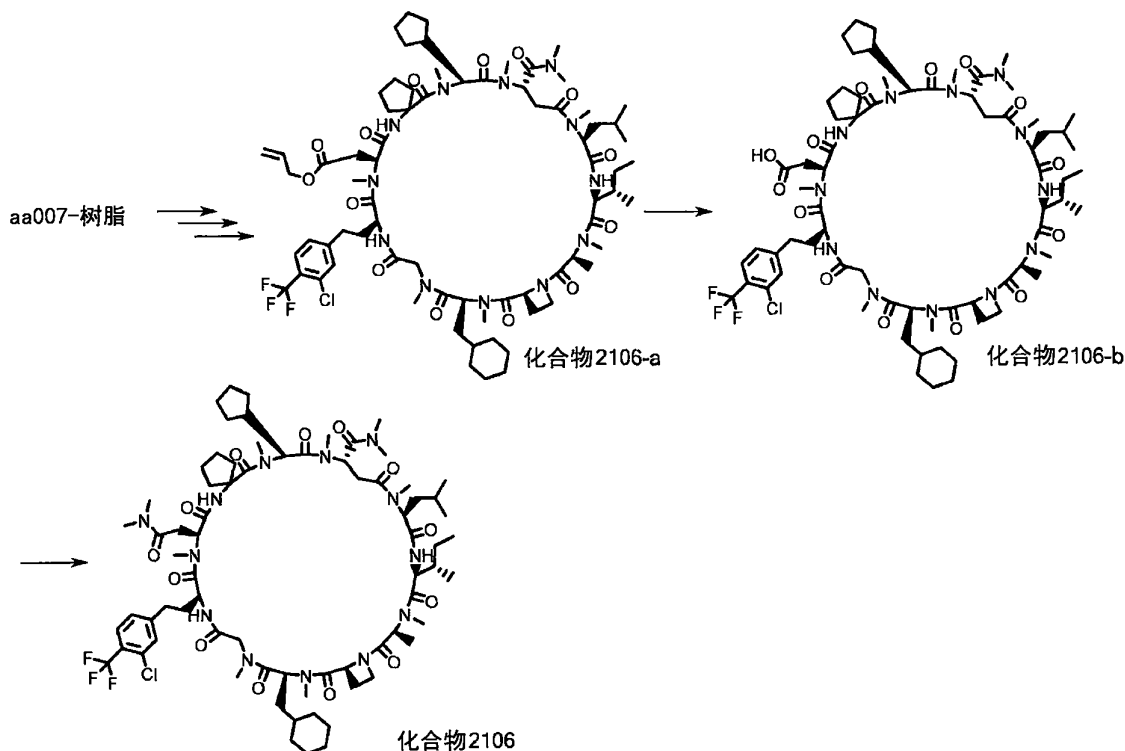
[4917] 化合物2098、化合物2103、化合物2112、化合物2104、化合物2107的合成

[4918] 利用与化合物2108的合成相同的方法,向在化合物2108的合成中得到的被分成6份的反应液A的一份中,代替二甲胺而加入以下表所示的胺(相对于肽为5当量),由此得到化合物2098、化合物2103、化合物2112、化合物2104、化合物2107。以下表中记载了目标物肽、用于反应的胺、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4919] [表20]

肽	胺	产量 mg	产率 %
化合物2098	3,3-二氟氮杂环丁烷盐酸盐	2.7	4
[4920] 化合物2103	氮杂环丁烷	3.6	5.5
化合物2112	哌啶	3.8	5.7
化合物2104	吡咯烷	2.5	3.8
化合物2107	吗啉	4.5	6.8

[4921] 化合物2106((3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(二甲基氨基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)的合成



[4923] 使用化合物aa011-树脂((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-NMe2(600mg,0.371mmol/g,0.223mmol)作为起始原料并且使用化合物2108-a((2S)-2-[9H-芴-9-基甲氧基羰基(甲基)氨基]-5-氧代-5-丙-2-烯氧基戊酸)作为试剂,利用本实施例记载

的基本的肽合成法进行肽合成,由此得到化合物2106-a的粗产物。

[4924] 将上述所得化合物2106-a的全部量(0.223mmol)溶解于二氯甲烷(2.5mL)中,向其中加入四(三苯基膦)钯(0)(14.7mg,0.05当量)和苯基硅烷(22 μ L,0.7当量),在室温下搅拌1小时。向该反应液中加入四(三苯基膦)钯(0)(14.7mg,0.05当量)和苯基硅烷(22 μ L,0.7当量)并搅拌2小时,得到含有化合物2106-b的反应液。向该反应液中加入HATU(193mg,2当量)的二甲基甲酰胺溶液(2.5mL)和二异丙基乙胺(0.11mL,2.4当量)并搅拌15分钟。将该反应液(反应液B)分成六份,将其中一份用于后续反应。

[4925] 将二甲胺(0.11mL,5当量,2.0M四氢呋喃溶液)加入到反应液B(0.037mmol)中,在室温下搅拌2小时。减压浓缩反应液,利用制备型HPLC纯化所得残渣,得到化合物2106((3S,6S,9S,13S,16S,22S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-22-[2-(二甲基氨基)-2-氧代-乙基]-9-异丁基-N,N,3,4,10,14,17,23,29,32-十甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)(6.6mg,12%)。LC/MS数据记载于表22中。

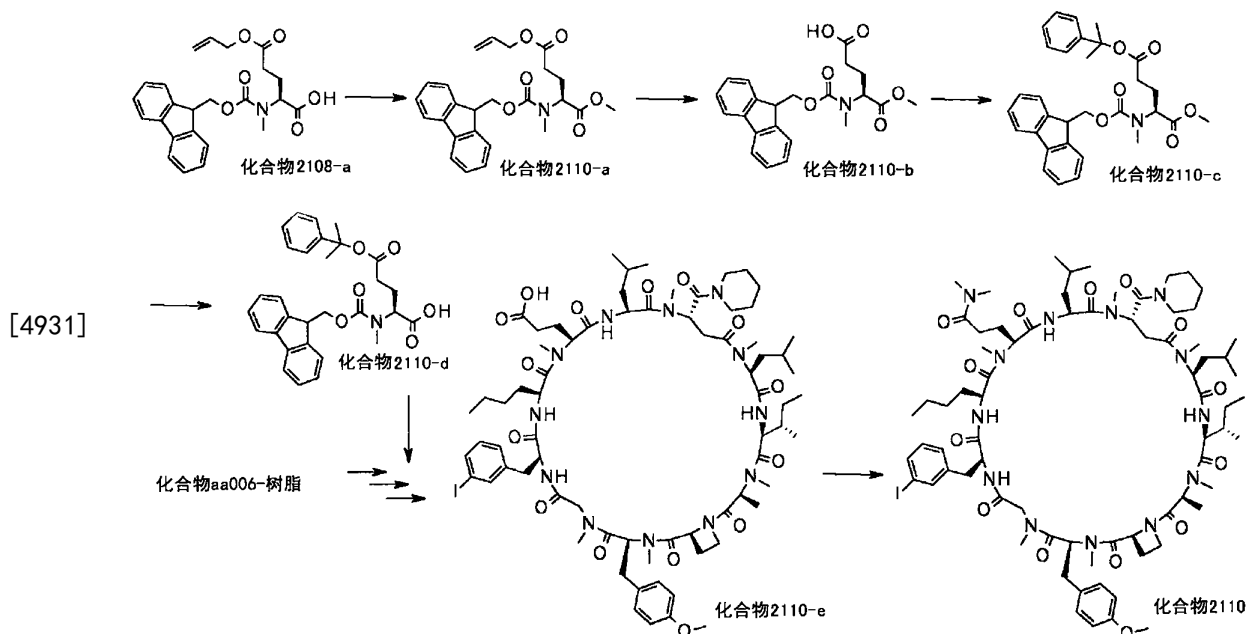
[4926] 化合物2102、化合物2105、化合物2097、化合物2109的合成

[4927] 利用与化合物2106的合成相同的方法,向在化合物2106的合成中得到的被分成6份的反应液B的一份中,代替二甲胺而加入以下表所示的胺(相对于肽为5当量),由此得到化合物2102、化合物2105、化合物2097、化合物2109。以下表中记载了目标物肽、用于反应的胺、目标物的产量(mg)和产率(%)。LC/MS数据记载于表22中。

[4928] [表21]

[4929]	目标物	胺	产量 mg	产率 %
	化合物 2 1 0 2	氮杂环丁烷	6. 3	1 1
	化合物 2 1 0 5	哌啶	5. 6	1 0
	化合物 2 0 9 7	吡咯烷	4. 4	8
	化合物 2 1 0 9	吗啉	9. 2	1 6

[4930] 化合物2110(3-[(3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-22-丁基-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19-基]-N,N-二甲基-丙酰胺)的合成



[4932] 将化合物2108-a (10.34g, 24.42mmol)、WSCl·HCl (6.09g, 31.7mmol) 和HOAt (4.32g, 31.7mmol) 的DCM (116mL) 溶液在室温下搅拌15分钟, 向其中加入甲醇 (1.038mL, 25.6mmol) 和DIPEA (5.53mL, 31.7mmol) 并搅拌90分钟。将反应液用二氯甲烷稀释, 依次用饱和氯化铵水溶液/水 (1/1)、饱和食盐水洗涤。将有机层用无水硫酸钠干燥后, 在减压下蒸发溶剂, 得到化合物2110-a的粗产物 (10.93g)。将其与利用相同方法合成的另一批混合并用于下一步反应。

[4933] LCMS (ESI) $m/z = 438 (M+H)^+$

[4934] 保留时间: 1.338分钟 (分析条件SMDmethod_04)

[4935] 在氮气气氛下, 向化合物2110-a (11.99g, 27.4mmol) 的DCM (54.8mL) 溶液中, 在0℃下加入四(三苯基膦) 钯 (0) (0.19g, 0.164mmol) 和苯基硅烷 (2.359mL, 19.18mmol), 在室温下搅拌过夜。用TBME稀释反应液, 用5%碳酸钠水溶液和水洗涤。将水层用磷酸 (11.25mL, 164mmol) 酸化, 用乙酸乙酯萃取。将得到的有机层用饱和食盐水洗涤, 用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂, 得到化合物2110-b (9.56g, 95%)。

[4936] LCMS (ESI) $m/z = 420 (M+Na)^+$

[4937] 保留时间: 1.069分钟 (分析条件SMDmethod_04)

[4938] 向化合物2110-b (9.56g, 24.05mmol) 的DCM (16.04mL) 溶液中, 在室温下加入2-苯基丙-2-基2,2,2-三氯乙酰亚胺酯 (13.5g, 48.1mmol) 的DCM/环己烷 (1/1, 32.8mL) 溶液, 搅拌过夜。用硅藻土过滤反应液, 在减压下从滤液中蒸馏除去溶剂, 得到化合物2110-c的粗产物 (17.29g)。不进行进一步纯化地用于下一步反应中。

[4939] 向氯化钙 (40g, 361mmol)、一水合氢氧化锂 (4.04g, 96mmol) 和水 (100mL) 的悬浮液中, 在室温下加入化合物2110-c (17.29g) 的THF (100mL) 和2-丙醇 (401mL) 溶液, 搅拌过夜。过滤除去反应液中的固形物, 将滤液在减压下浓缩。向残渣中加入水, 用乙酸乙酯萃取。将有机层依次用0.1M磷酸水溶液、饱和食盐水洗涤, 用无水硫酸钠干燥后, 在减压下蒸馏除去溶剂。将所得残渣用TBME/己烷 (1/1) 稀释, 用5%碳酸钠水溶液/水/甲醇 (15/12/4) 萃取。将所得水层用TBME/己烷 (1/1) 洗涤, 用乙酸乙酯萃取。将所得有机层依次用0.2M磷酸水溶液、

饱和食盐水洗涤,用无水硫酸钠干燥后,在减压下蒸馏除去溶剂,得到化合物2110-d (9.68g,80%)。

[4940] LCMS (ESI) $m/z=524 (M+Na)^+$

[4941] 保留时间:1.365分钟(分析条件SMDmethod_04)

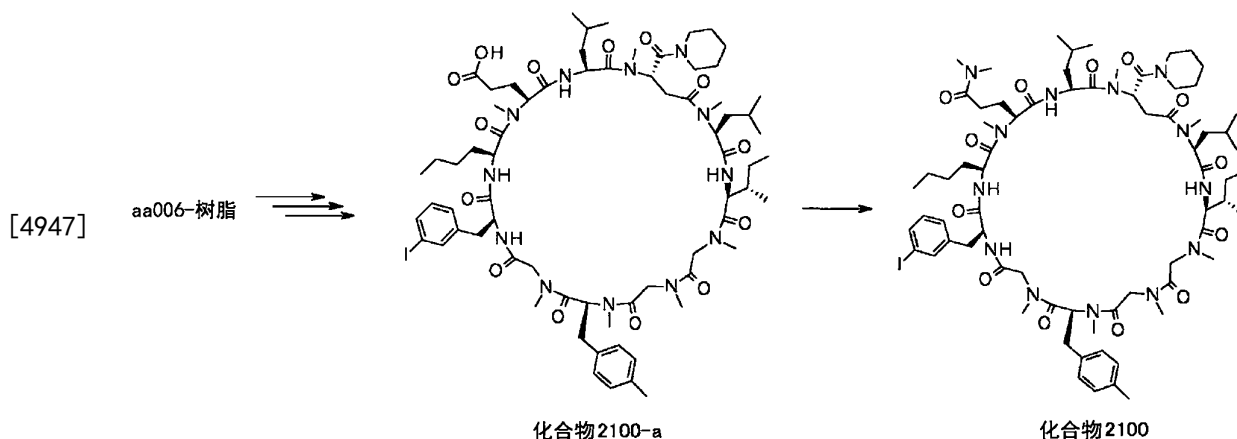
[4942] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(100mg, 0.411mmol/g,0.0411mmol)作为原料,并且使用通过上述得到的化合物2110-d作为试剂,利用本实施例记载的基本的肽合成法进行肽合成,得到化合物2110-e (25mg,40%)。Pis基的脱保护在与THP基的脱保护条件相同的条件下进行。

[4943] LCMS (ESI) $m/z=1510 (M+H)^+$

[4944] 保留时间:0.71分钟(分析条件SQDAA50)

[4945] 将化合物2110-e (15mg,0.0099mmol)溶解于四氢呋喃(0.2ml)中,加入碳酸氢钠(4.17mg,0.050mmol)、3-(二乙氧基磷酰氧基)-1,2,3-苯并三嗪-4(3H)-酮(DEPBT)(14.87mg,0.050mmol)、二甲胺(2mol/L,THF溶液,0.025ml,0.050mmol)后,在室温下搅拌4小时。将反应液浓缩后,将所得残渣利用制备型HPLC纯化,得到化合物2110(3-[(3S,6S,9S,13S,16S,19S,22S,25S,31S,34S)-22-丁基-25-[(3-碘苯基)甲基]-9,16-二异丁基-31-[(4-甲氧基苯基)甲基]-3,4,10,14,20,29,32-七甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-13-(哌啶-1-羰基)-1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19-基]-N,N-二甲基-丙酰胺)(5.07mg,33%)。LC/MS数据记载于表22中。

[4946] 化合物2100(3-[(3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]-N,N-二甲基-丙酰胺)的合成



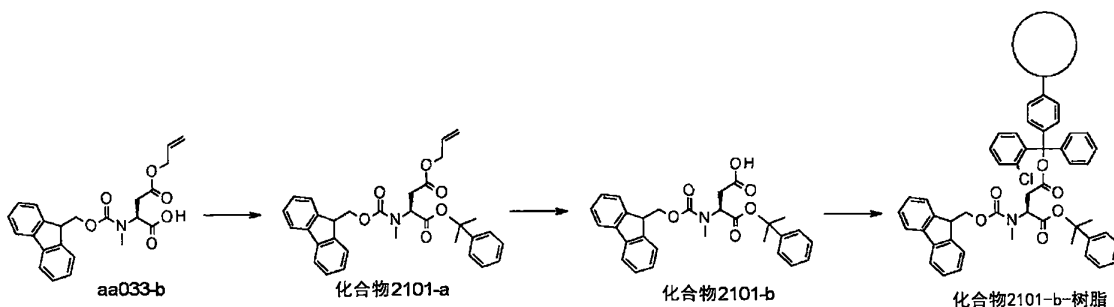
[4948] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(100mg, 0.411mmol/g,0.0411mmol)作为原料,并且使用化合物2110-d作为试剂,利用本实施例记载的基本的肽合成法进行肽合成,得到化合物2100-a (27.5mg,46%)。Pis基的脱保护在与THP基的脱保护条件相同的条件下进行。

[4949] LCMS (ESI) $m/z=1468 (M+H)^+$

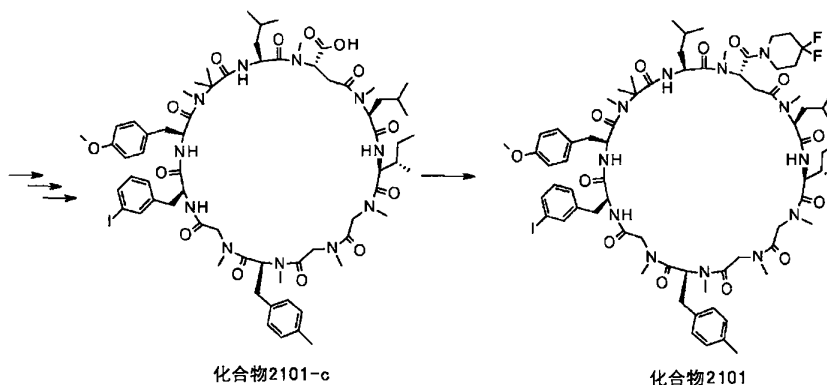
[4950] 保留时间:0.73分钟(分析条件SQDAA50)

[4951] 使用化合物2100-a并利用与化合物2110的合成相同的方法得到化合物2100 (3-[(3S,6S,9S,12S,18S,27S,30S,34S)-9-丁基-12-[(3-碘苯基)甲基]-3,30-二异丁基-1,7,16,19,22,25,31-七甲基-27-[(1S)-1-甲基丙基]-2,5,8,11,14,17,20,23,26,29,32-十一氧代-34-(哌啶-1-羰基)-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-6-基]-N,N-二甲基-丙酰胺)(6.44mg,43%)。LC/MS数据记载于表22中。

[4952] 化合物2101 ((3S,9S,12S,18S,27S,30S,34S)-34-(4,4-二氟哌啶-1-羰基)-12-[(3-碘苯基)甲基]-3,30-二异丁基-9-[(4-甲氧基苯基)甲基]-1,6,6,7,16,19,22,25,31-九甲基-27-[(1S)-1-甲基丙基]-18-(对甲苯基甲基)-1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮)的合成



[4953]



[4954] 向aa033-b (2g,4.88mmol) 的DCM (15mL) 溶液中以DCM溶液的形式加入2-苯基丙烷-2-基2,2,2-三氯乙酰亚胺酯 (2.74g,9.77mmol), 在室温下搅拌2小时。在减压下从反应液中蒸馏除去溶剂, 利用反相柱色谱纯化得到的残渣, 由此得到化合物2101-a (2.10g,81%)。

[4955] LCMS (ESI) $m/z = 550.3$ (M+Na) +

[4956] 保留时间:0.76分钟(分析条件SQDAA50)

[4957] 在氮气气氛、室温下, 向化合物2101-a (2.1g,3.98mmol) 的DCM (15mL) 溶液中加入四(三苯基膦) 钯 (0) (0.046g,0.04mmol) 和苯基硅烷 (0.343mL,2.79mmol), 搅拌1小时。将反应液用MTBE和5%碳酸氢钠水溶液稀释, 在减压下蒸馏除去溶剂, 将所得残渣利用反相柱色谱纯化, 得到化合物2101-b (1.67g,86%)。

[4958] LCMS (ESI) $m/z = 510$ (M+Na) +

[4959] 保留时间:0.94分钟(分析条件SQDFA05)

[4960] 使用得到的化合物2101-b (1.17g,2.4mmol), 利用与化合物aa007-树脂的合成相同的方法, 得到化合物2101-b-树脂 (3.6g,0.377mmol/g)。

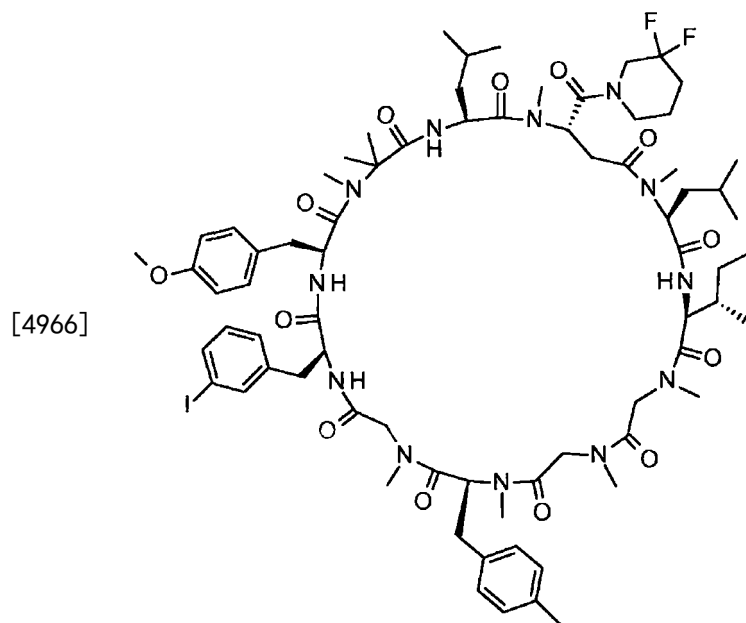
[4961] 使用化合物2101-b-树脂(300mg, 0.377mmol/g, 0.1131mmol)作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物2101-c (38mg, 24%)。Pis基的脱保护在与THP基的脱保护条件相同的条件下进行。

[4962] LCMS (ESI) $m/z = 1421$ (M+H) +

[4963] 保留时间: 0.64分钟 (分析条件SQDAA50)

[4964] 使用化合物2101-c (15mg, 10.56 μ mol) 并使用4,4-二氟哌啶盐酸盐来代替二甲胺, 利用与化合物2110的合成相同的方法得到化合物2101 ((3S, 9S, 12S, 18S, 27S, 30S, 34S) - 34- (4,4-二氟哌啶-1-羰基) -12- [(3-碘苯基) 甲基] -3,30-二异丁基-9- [(4-甲氧基苯基) 甲基] -1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -18- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮) (6.77mg, 42%)。LC/MS数据记载于表22中。

[4965] 化合物2099 ((3S, 9S, 12S, 18S, 27S, 30S, 34S) - 34- (3,3-二氟哌啶-1-羰基) -12- [(3-碘苯基) 甲基] -3,30-二异丁基-9- [(4-甲氧基苯基) 甲基] -1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -18- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮) 的合成



化合物 2099

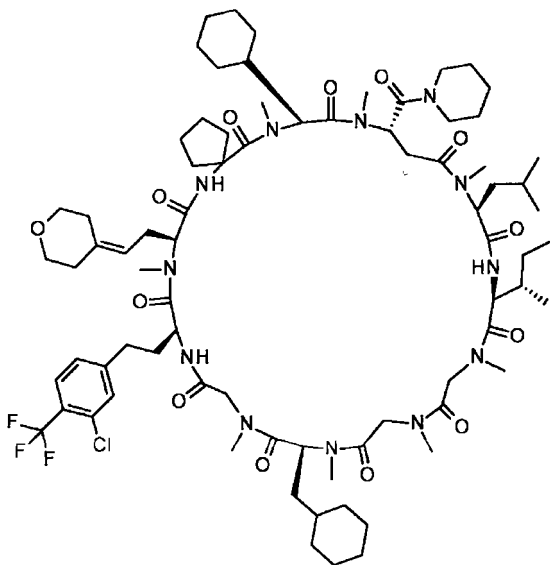
[4967] 使用化合物2101-c (15mg, 10.56 μ mol) 并使用3,3-二氟哌啶盐酸盐来代替二甲胺, 利用与化合物2110的合成相同的方法得到化合物2099 ((3S, 9S, 12S, 18S, 27S, 30S, 34S) - 34- (3,3-二氟哌啶-1-羰基) -12- [(3-碘苯基) 甲基] -3,30-二异丁基-9- [(4-甲氧基苯基) 甲基] -1,6,6,7,16,19,22,25,31-九甲基-27- [(1S) -1-甲基丙基] -18- (对甲苯基甲基) -1,4,7,10,13,16,19,22,25,28,31-十一氮杂环三十四烷-2,5,8,11,14,17,20,23,26,29,32-十一酮) (5.24mg, 33%)。LC/MS数据记载于表22中。

[4968] 1-4-10. 基于烯烃复分解反应的肽修饰

[4969] 化合物2053 ((8S, 11S, 17S, 26S, 29S, 33S, 36S) -11- [2- [3-氯-4- (三氟甲基) 苯基] 乙基] -36-环己基-17- (环己基甲基) -29-异丁基-9,15,18,21,24,30,34,37-八甲基-26- [(1S) -1-甲基丙基] -33- (哌啶-1-羰基) -8- (2-四氢吡喃-4-亚基乙基) -6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4,33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一

酮)的合成

[4970]

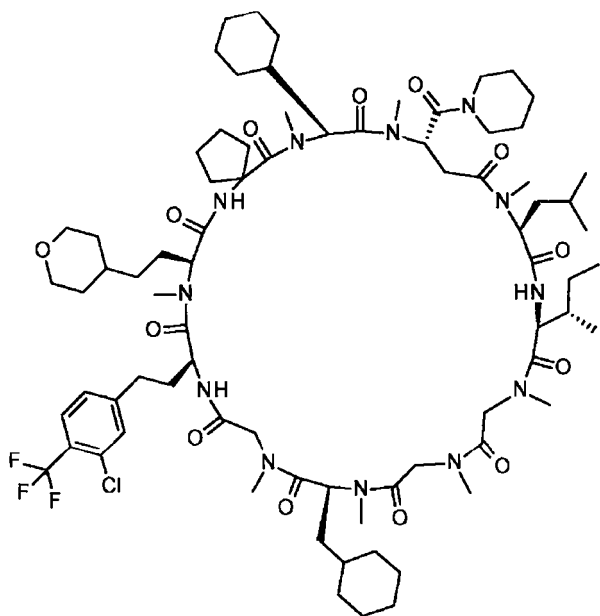


化合物 2053

[4971] 在氮气气氛下,将化合物1449 (9mg, 6.18 μ mol)、第二代Grubbs催化剂 (2.6mg) 和4-亚甲基四氢-2H-吡喃 (20 μ L) 的1,2-二氯乙烷 (1mL) 溶液在60 $^{\circ}$ C搅拌6小时。进一步添加4-亚甲基四氢-2H-吡喃 (50 μ L), 在相同温度下搅拌2小时45分钟。进一步追加第二代Grubbs催化剂 (2.6mg) 并在相同温度下搅拌12小时。将反应混合物冷却至室温并减压浓缩。利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得粗产物,得到化合物2053 ((8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-亚基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮) (5.0mg, 60%)。LC/MS数据记载于表22中。

[4972] 化合物2048 ((8S,11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)的合成

[4973]

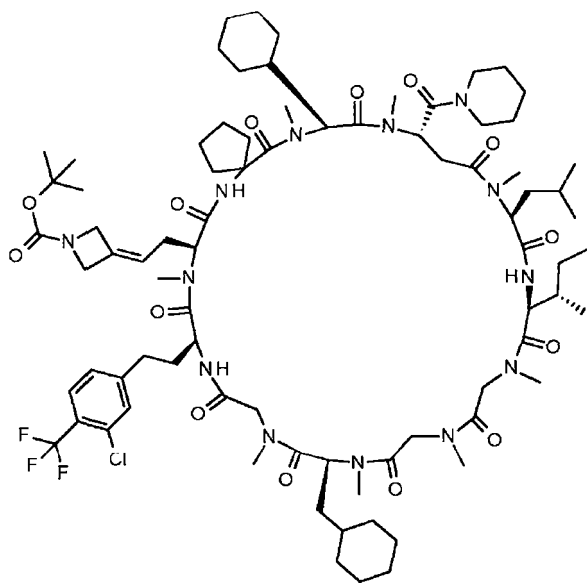


化合物 2048

[4974] 在氢气气氛、室温下,将化合物2053 (7.8mg, 5.11 μ mol) 和氧化铂(IV) (1.2mg, 5.11 μ mol) 的乙醇(1mL) 混合物搅拌10小时后,追加氧化铂(IV) (1.2mg, 5.11 μ mol) 并在相同温度下搅拌约17小时。用硅藻土过滤反应混合物,减压浓缩,利用反相柱色谱(10mM乙酸铵水溶液/甲醇)纯化所得残渣,得到化合物2048 ((8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-8-(2-四氢吡喃-4-基乙基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮 (7.8mg, 99%)。LC/MS数据记载于表22中。

[4975] 化合物2050 (3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]亚乙基]氮杂环丁烷-1-甲酸叔丁酯)的合成

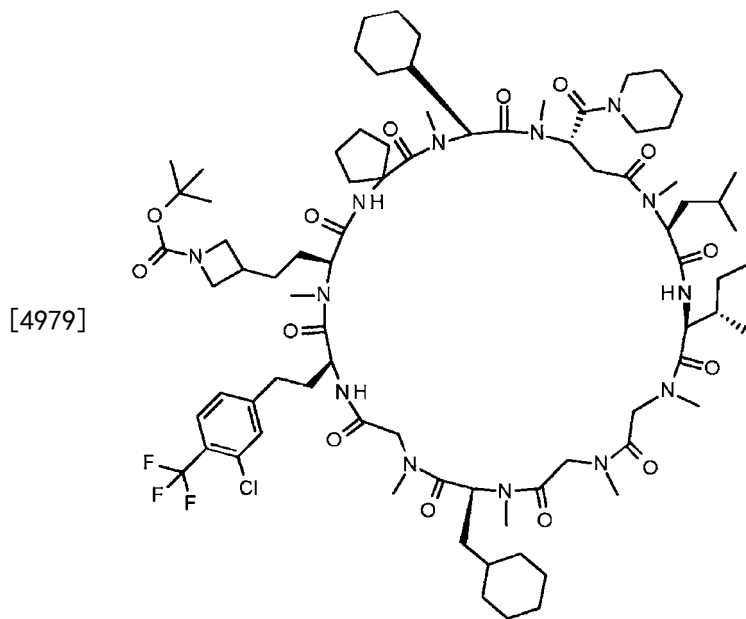
[4976]



化合物 2050

[4977] 在氮气气氛下,将化合物1449 (9mg, 6.18 μ mol)、第二代Hoveyda-Grubbs催化剂 (3.9mg) 和1-叔丁氧羰基-3-亚甲基-氮杂环丁烷 (20 μ L) 的二氯乙烷 (1mL) 溶液在60℃下搅拌2小时30分钟后,在75℃下搅拌。进一步追加Hoveyda-Grubbs第二代催化剂 (3.9mg) 和1-叔丁氧羰基-3-亚甲基-氮杂环丁烷 (20 μ L), 在80℃下搅拌14小时后,进一步追加第二代Hoveyda-Grubbs催化剂 (3.9mg) 并在相同温度下搅拌约10小时。将反应混合物冷却至室温,减压浓缩,将所得残渣利用制备型HPLC纯化,得到化合物2050 (3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]亚乙基]氮杂环丁烷-1-甲酸叔丁酯) (0.65mg, 6.6%)。LC/MS数据记载于表22中。

[4978] 化合物2056 (3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙基]氮杂环丁烷-1-甲酸叔丁酯)的合成

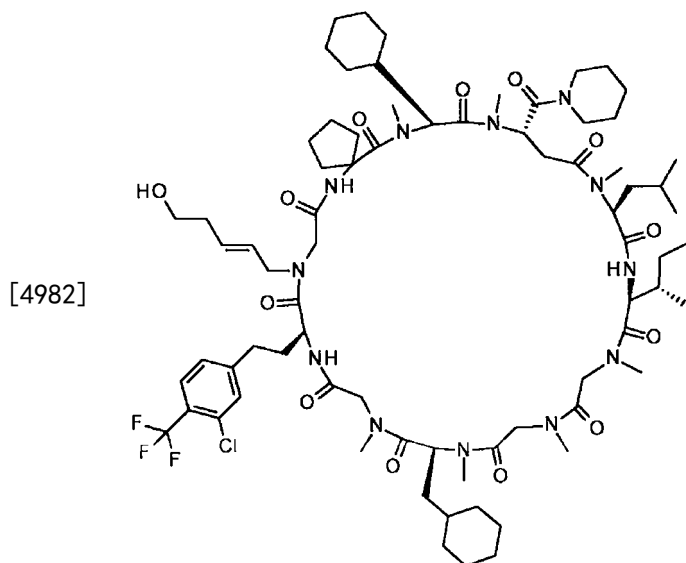


化合物 2056

[4980] 将化合物2050 (1.6mg, 1 μ mol) 和氧化铂(IV) (1mg, 4.4 μ mol) 的乙醇 (1mL) 混合物在氢气气氛、室温下搅拌3小时。用硅藻土过滤反应混合物并减压浓缩。将所得残渣利用反相色谱 (10mM乙酸铵水溶液/甲醇) 纯化,得到化合物2056 (3-[2-[(8S,11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9,15,18,21,24,30,34,37-八甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-8-基]乙基]氮杂环丁烷-1-甲酸叔丁酯) (1.2mg, 75%)。LC/MS数据记载于表22中。

[4981] 化合物2046 ((11S,17S,26S,29S,33S,36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊-2-烯基)-29-异丁基-15,18,21,24,30,

34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)的合成

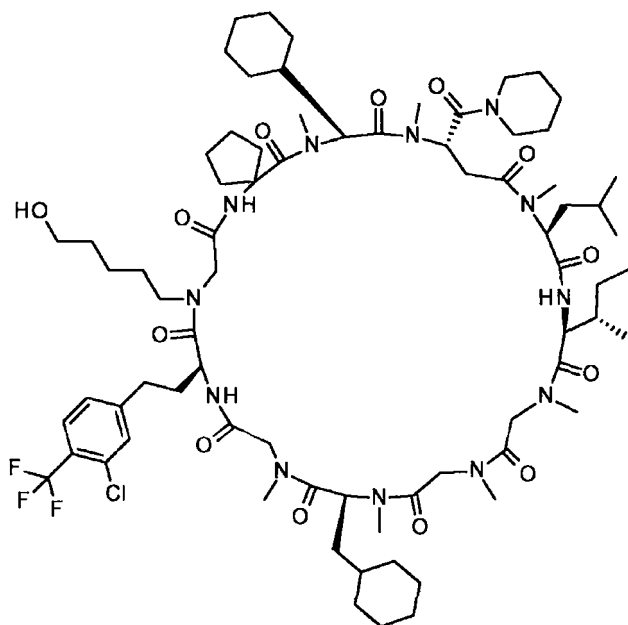


化合物 2046

[4983] 将化合物899 (40mg, 0.028 μ mol) 溶解于1,2-二氯乙烷 (0.66mL) 中, 加入Stewart-Grubbs催化剂 (CAS号927429-61-6, 24mg, 0.042mmol) 和高烯丙基醇 (20 μ L, 8当量), 在室温下搅拌16小时。进一步加入高烯丙基醇 (20 μ L, 8当量) 并搅拌2小时后, 加入Stewart-Grubbs催化剂 (CAS号927429-61-6, 12mg, 0.021mmol), 进一步搅拌2小时。将反应液减压浓缩, 将所得残渣利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化, 得到化合物2046 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊-2-烯基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) (12.3mg, 30%)。LC/MS数据记载于表22中。

[4984] 化合物2049 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮)的合成

[4985]

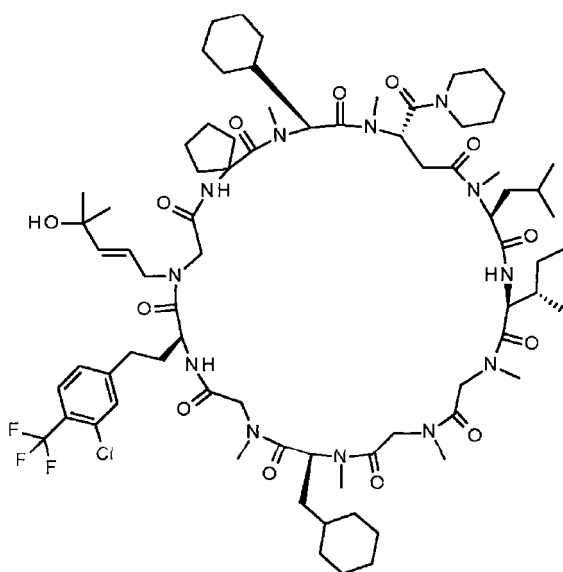


化合物 2049

[4986] 向化合物2046 (3.0mg, 2.02 μ mol) 的乙醇 (1.0mL) 溶液中加入氧化铂(IV) (3.7mg, 16 μ mol), 将反应容器中的气氛替换为氢气, 在室温下搅拌3小时。用硅藻土过滤反应液, 将滤液减压浓缩。将所得残渣利用反相柱色谱纯化, 得到化合物2049 ((11S, 17S, 26S, 29S, 33S, 36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(5-羟基戊基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) (2.6mg, 87%)。LC/MS数据记载于表22中。

[4987] 化合物2047 ((11S, 17S, 26S, 29S, 33S, 36S) -11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(4-羟基-4-甲基-戊-2-烯基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) 的合成

[4988]

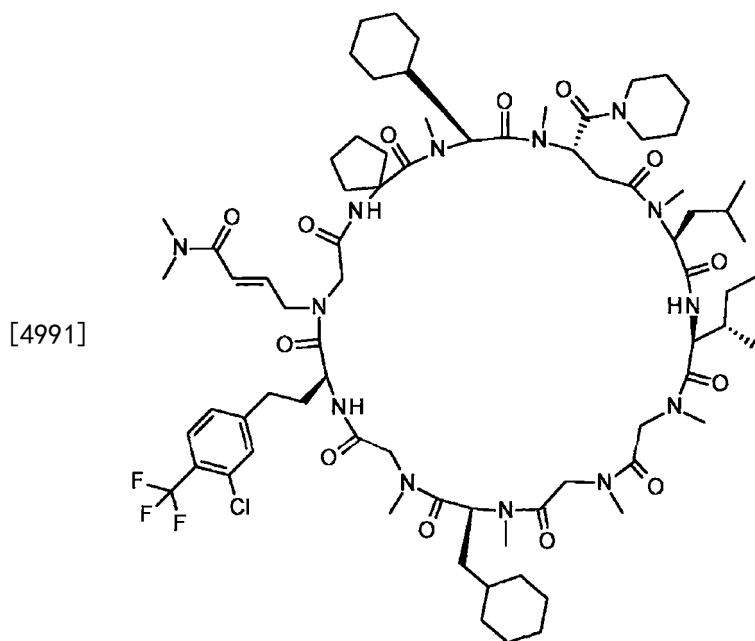


化合物 2047

[4989] 将化合物899 (20mg, 14 μ mol) 溶解于二氯乙烷 (0.33mL) 中, 加入Stewart-Grubbs催

化剂(CAS号927429-61-6,12mg,21 μ mol)和2-甲基-3-丁烯-2-醇(12 μ L,8当量),在室温下搅拌16小时。进一步加入2-甲基-3-丁烯-2-醇(12 μ L,8当量)并搅拌45分钟后,加入Stewart-Grubbs催化剂(CAS号927429-61-6,6.0mg,0.8当量),搅拌3小时。将反应液减压浓缩,利用反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水)纯化所得残渣,得到粗产物。利用制备型HPLC纯化粗产物,得到化合物2047((11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-9-(4-羟基-4-甲基-戊-2-烯基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)(1.4mg,7%)。LC/MS数据记载于表22中。

[4990] 化合物2054(4-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁-2-烯酰胺)的合成



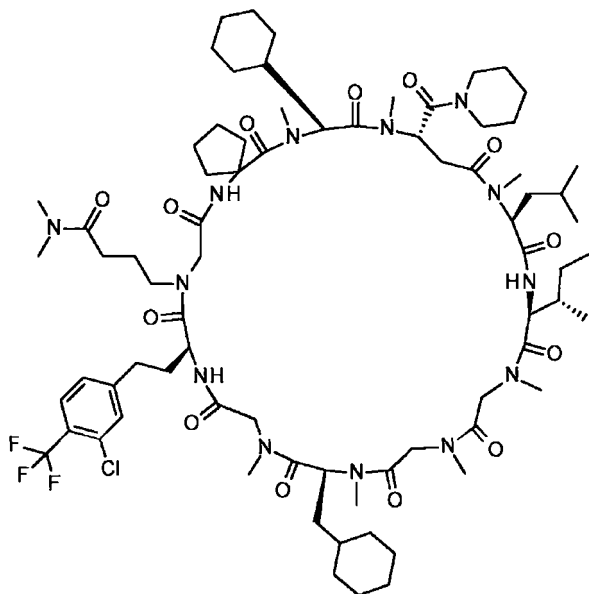
化合物 2054

[4992] 使用化合物899(20mg,14 μ mol)作为起始原料并使用N,N-二甲基丙烯酰胺(16当量)来代替2-甲基-3-丁烯-2-醇,利用与化合物2047的合成相同的方法,得到化合物2054(4-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁-2-烯酰胺)(1.4mg,6%)。LC/MS数据记载于表22中。

[4993] 化合物2052(4-[(11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-7,10,13,16,19,22,25,28,31,35,38-十一氧代-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-9-基]-N,N-二甲基-丁酰

胺)的合成

[4994]

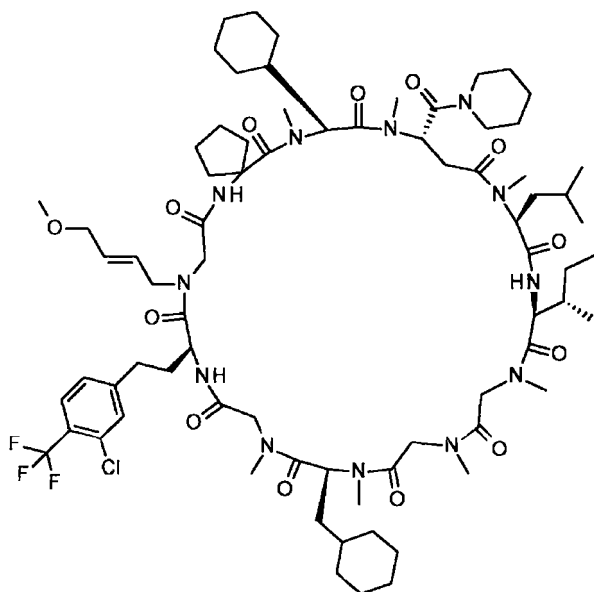


化合物 2052

[4995] 向化合物2054 (3.1mg, 2.08 μ mol) 的乙醇 (1.0mL) 溶液中加入氧化铂 (IV) (4.7mg, 10当量), 将反应容器中的气氛替换为氢气, 在室温下搅拌3小时。用硅藻土过滤反应液, 将滤液减压浓缩。将所得残渣利用反相柱色谱纯化, 进而利用制备型HPLC纯化, 得到化合物 2052 (4-[(11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一氧代-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-9-基]-N, N-二甲基-丁酰胺) (1.4mg, 45%)。LC/MS数据记载于表22中。

[4996] 化合物2051 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[(E)-4-甲氧基丁-2-烯基]-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮)的合成

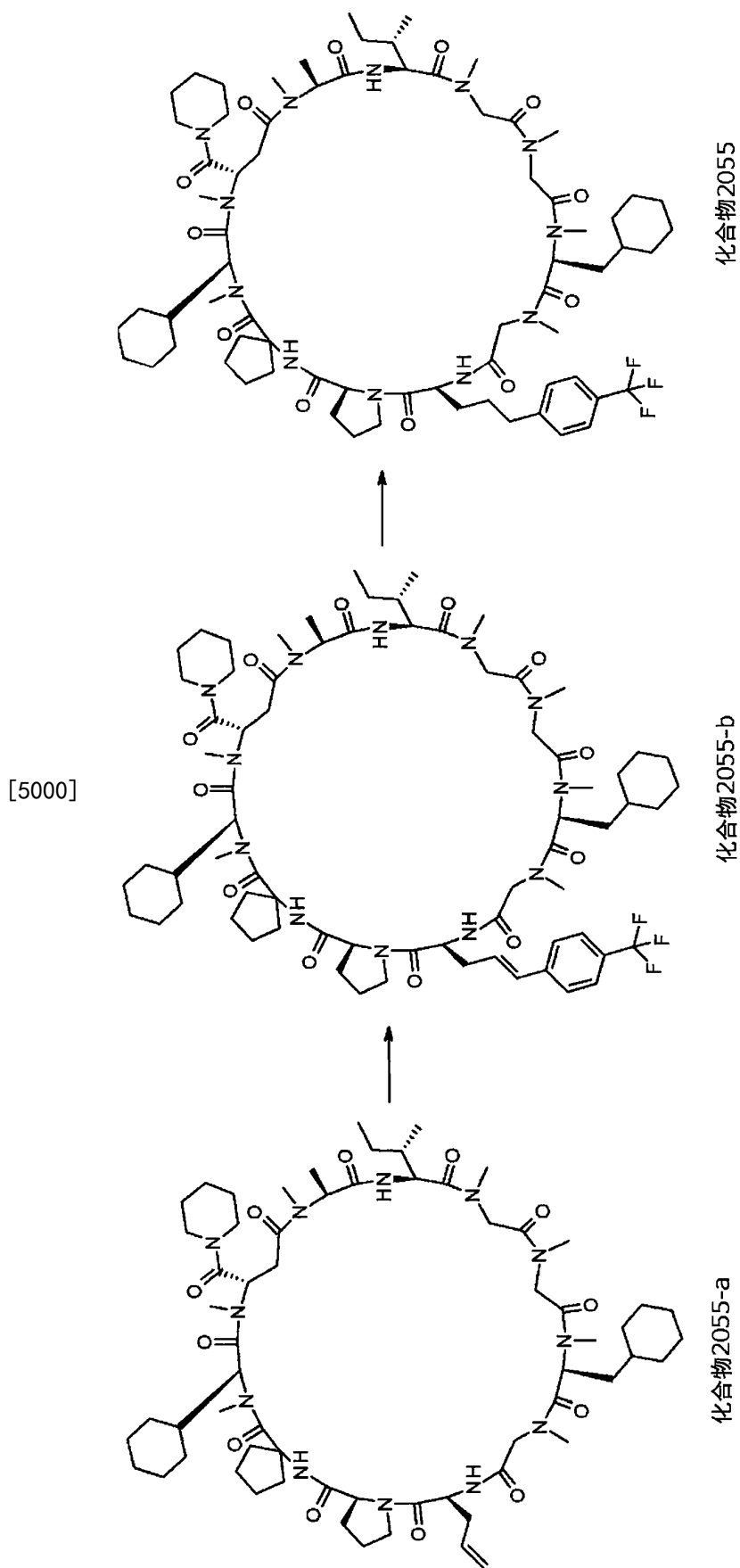
[4997]



化合物 2051

[4998] 将化合物899 (50mg, 35 μ mol) 溶解于1,2-二氯乙烷 (0.69mL) 中, 加入Stewart-Grubbs催化剂 (CAS号927429-61-6, 29.7mg, 1.5当量) 和甲基烯丙基醚 (52 μ L, 16当量), 在室温下搅拌2小时。进一步加入Stewart-Grubbs催化剂 (CAS号927429-61-6, 29.7mg, 1.5当量) 和甲基烯丙基醚 (52 μ L, 16当量) 搅拌2小时后, 将反应液减压浓缩, 利用反相柱色谱纯化所得残渣, 然后进一步利用制备型HPLC纯化, 得到化合物2051 ((11S, 17S, 26S, 29S, 33S, 36S) - 11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-9-[(E) -4-甲氧基丁-2-烯基]-15, 18, 21, 24, 30, 34, 37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4.33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮) (7.4mg, 14%)。LC/MS数据记载于表22中。

[4999] 化合物2055 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) - 28-环己基-9-(环己基甲基)-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[3-[4-(三氟甲基)苯基]丙基]螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) 的合成



[5001] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(1.6g,

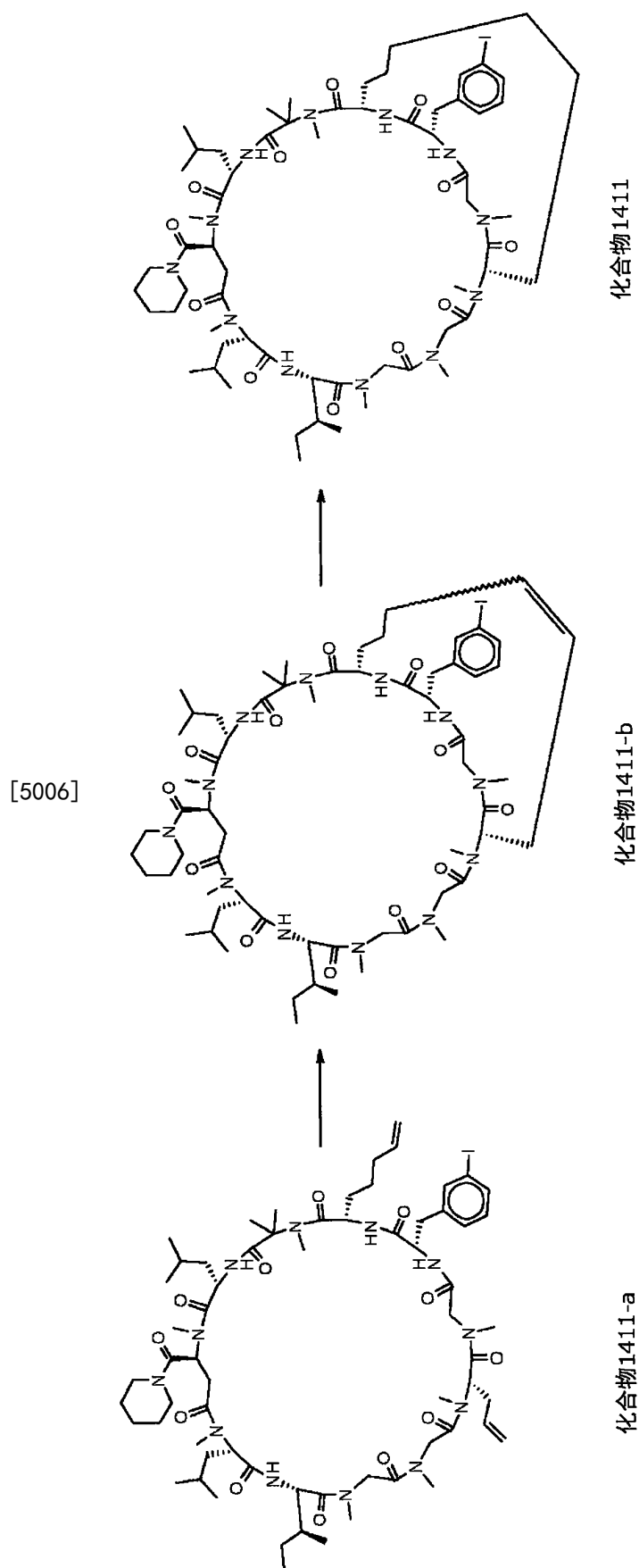
0.3mmol/g, 0.48mmol) 作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物2055-a (490mg, 83%)。

[5002] LCMS (ESI) $m/z = 1234$ (M+H) +

[5003] 保留时间: 0.93分钟 (分析条件SQDFA05)

[5004] 使用化合物2055-a (20mg, 16 μ mol) 作为原料并使用1-(三氟甲基)-4-乙烯基苯来代替高烯丙基醇, 利用与化合物2046相同的方法得到化合物2055-b的粗产物。将得到的化合物2055-b溶解于甲醇 (3mL) 中, 加入钨碳 (10%) (60mg) 后, 在室温、氢气气氛下搅拌过夜。浓缩反应液, 利用反相柱色谱 (10mM乙酸铵水溶液/水) 纯化所得残渣, 然后进一步利用制备型HPLC进行纯化, 得到化合物2055 ((3S, 9S, 18S, 21S, 25S, 28S, 34S) -28-环己基-9-(环己基甲基)-7, 10, 13, 16, 21, 22, 26, 29-八甲基-18-[(1S)-1-甲基丙基]-25-(哌啶-1-羰基)-3-[3-[4-(三氟甲基)苯基]丙基]螺[1, 4, 7, 10, 13, 16, 19, 22, 26, 29, 32-十一氮杂双环[32.3.0]三十七烷-31, 1'-环戊烷]-2, 5, 8, 11, 14, 17, 20, 23, 27, 30, 33-十一酮) (1.92mg, 8.6%)。LC/MS数据记载于表22中。

[5005] 化合物1411 ((1S, 7S, 10S, 14S, 17S, 26S, 32S) -32-[(3-碘苯基)甲基]-7, 14-二异丁基-3, 4, 4, 9, 13, 19, 22, 25, 28-九甲基-17-[(1S)-1-甲基丙基]-10-(哌啶-1-羰基)-3, 6, 9, 13, 16, 19, 22, 25, 28, 31, 34-十一氮杂双环[24.8.6]四十烷-2, 5, 8, 12, 15, 18, 21, 24, 27, 30, 33-十一酮) 的合成



[5007] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.3g,

0.436mmol/g, 0.131mmol) 作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物1411-a (56.1mg, 31%)

[5008] LCMS (ESI) $m/z = 1372$ (M+H) +

[5009] 保留时间: 0.97分钟 (分析条件SQDFA05)

[5010] 向化合物1411-a (28.7mg, 21 μ mol) 的1,2-二氯乙烷 (3mL) 溶液中加入Stewart-Grubbs催化剂 (CAS号927429-61-6, 3.6mg, 6.3 μ mol), 在45℃~50℃的温度下搅拌5小时。减压浓缩反应液, 将所得残渣利用反相柱色谱纯化, 得到化合物1411-b (23mg, 82%)。

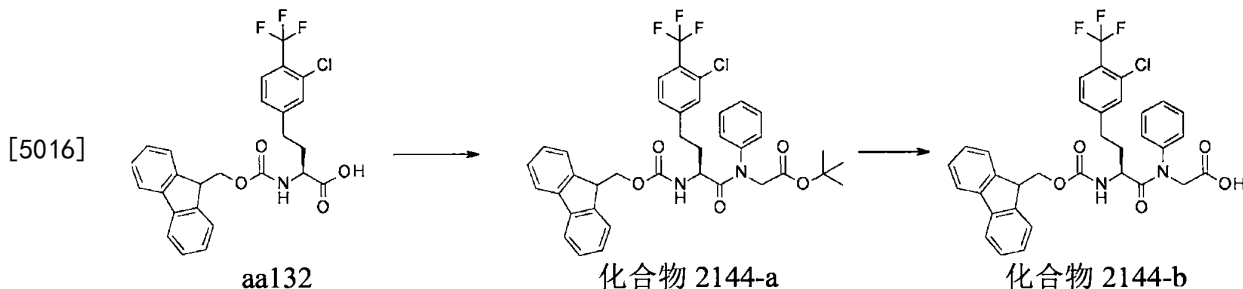
[5011] LCMS (ESI) $m/z = 1344$ (M+H) +

[5012] 保留时间: 0.90分钟 (分析条件SQDFA05)

[5013] 向化合物1411-b (20.2mg, 15 μ mol) 的乙醇 (1.5mL) 溶液中加入氧化铂 (IV) (4mg, 18 μ mol), 将反应容器中的气氛替换为氢气, 在室温下搅拌90分钟。用硅藻土过滤反应液, 将滤液减压浓缩。将所得残渣利用反相柱色谱纯化, 得到化合物1411 ((1S, 7S, 10S, 14S, 17S, 26S, 32S)-32-[(3-碘苯基)甲基]-7,14-二异丁基-3,4,4,9,13,19,22,25,28-九甲基-17-[(1S)-1-甲基丙基]-10-(哌啶-1-羰基)-3,6,9,13,16,19,22,25,28,31,34-十一氮杂双环[24.8.6]四十烷-2,5,8,12,15,18,21,24,27,30,33-十一酮) (14mg, 69%)。LC/MS数据记载于表22中。

[5014] 1-5. 使用Fmoc保护的二肽作为试剂的环状肽合成

[5015] 化合物2144-b (2-(N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]苯胺基)乙酸)的合成



[5017] 向化合物aa132 (10g, 19.85mmol) 的DCM (397mL) 溶液中加入亚硫酰二氯 (4.32mL, 59.5mmol) 和DMF (154 μ L, 1.985mmol), 在室温下搅拌4天。在减压下从反应液中蒸馏除去溶剂, 得到酰氯 (10.95g), 将其直接用于下一步反应。

[5018] 向上述得到的酰氯 (4.76g, 9.12mmol) 的DCM (65mL) 溶液中, 在0℃下加入2-苯胺基乙酸叔丁酯 (1.8g, 8.68mmol) 的DCM (25mL) 溶液, 在室温下搅拌4小时。加入甲醇 (1.8mL)、饱和氯化铵水溶液, 用DCM萃取。将所得有机层用饱和氯化铵水溶液洗涤并用无水硫酸钠干燥, 然后在减压下蒸馏除去溶剂。将所得残渣利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化, 得到化合物2144-a (4.27g, 71%)。

[5019] LCMS (ESI) $m/z = 693.2$ (M+H) +

[5020] 保留时间: 1.18分钟 (分析条件SQDFA05)

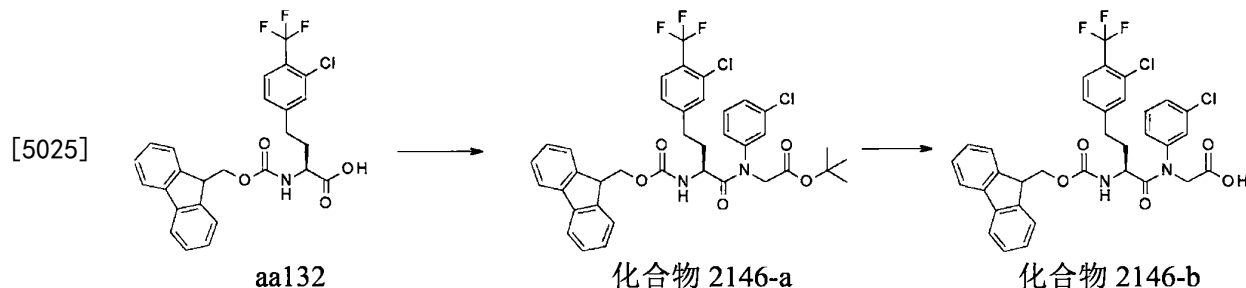
[5021] 在室温下将TMSCl (2.307mL, 18.18mmol) 加入到化合物2144-a (4.2g, 6.06mmol) 的TFE (30.3mL) 溶液中并进行搅拌。通过LC/MS确认反应完成后, 将反应液在减压下浓缩, 将得到的残渣利用反相柱色谱 (含有0.1%甲酸的乙腈/含有0.1%甲酸的蒸馏水) 纯化, 得到化合物2144-b (2-(N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)

丁酰基]苯胺基)乙酸)(3.795g,98%)。

[5022] LCMS (ESI) $m/z=637.2$ (M+H) +

[5023] 保留时间:1.01分钟(分析条件SQDFA05)

[5024] 化合物2146-b(2-(4-氯-N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]苯胺基)乙酸)的合成

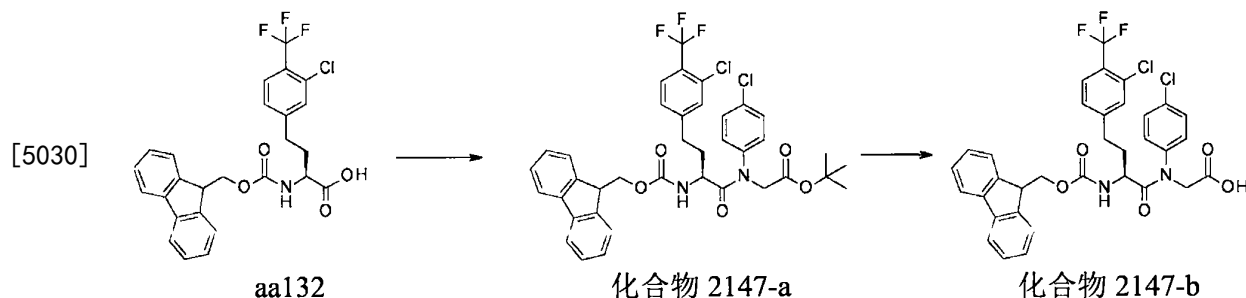


[5026] 使用2-(3-氯苯胺基)乙酸叔丁酯来代替N-苯基甘氨酸2-苯胺基乙酸叔丁酯,与化合物2144-b的合成相同地得到化合物2146-b(2-(4-氯-N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]苯胺基)乙酸)(3.9g,97%)。

[5027] LCMS (ESI) $m/z=671.2$ (M+H) +

[5028] 保留时间:1.05分钟(分析条件SQDFA05)

[5029] 化合物2147-b(2-(4-氯-N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]苯胺基)乙酸)的合成

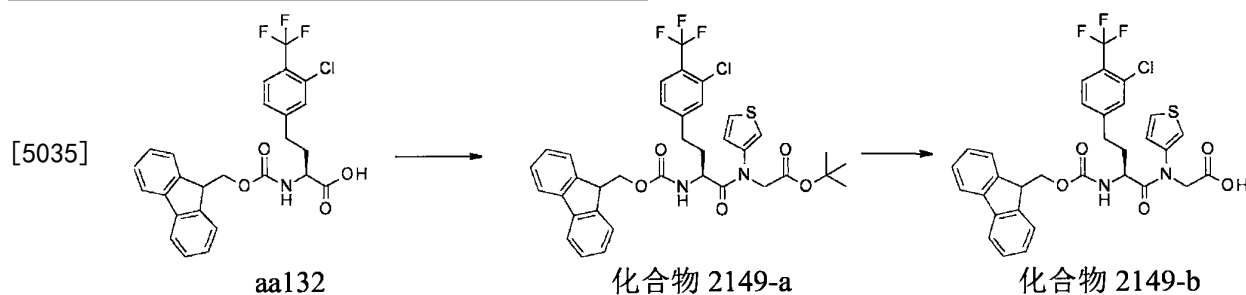


[5031] 使用2-(4-氯苯胺基)乙酸叔丁酯来代替N-苯基甘氨酸2-苯胺基乙酸叔丁酯,与化合物2144-b的合成相同地得到化合物2147-b(2-(4-氯-N-[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]苯胺基)乙酸)(3.21g,94%)。

[5032] LCMS (ESI) $m/z=671$ (M+H) +

[5033] 保留时间:1.06分钟(分析条件SQDFA05)

[5034] 化合物2149-b(2-[[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]-噻吩-3-基氨基]乙酸)的合成



[5036] 使用2-(噻吩-3-基氨基)乙酸叔丁酯代替N-苯基甘氨酸2-苯胺基乙酸叔丁酯,并

与化合物2144-b的合成相同地得到化合物2149-b (2-[[(2S)-4-[3-氯-4-(三氟甲基)苯基]-2-(9H-芴-9-基甲氧基羰基氨基)丁酰基]-噻吩-3-基氨基]乙酸) (4.3g, quant.)。

[5037] LCMS (ESI) m/z = 643 (M+H) +

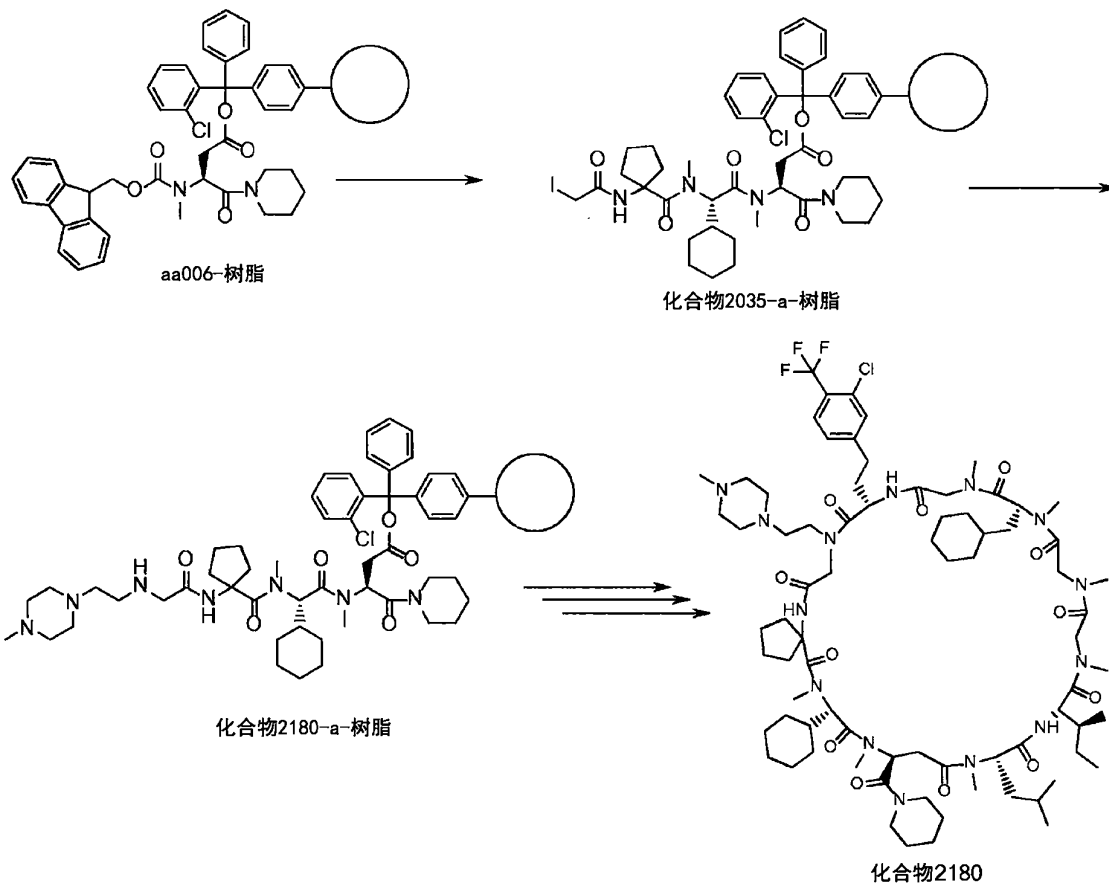
[5038] 保留时间: 1.00分钟 (分析条件SQDFA05)

[5039] 化合物2143-化合物2151的合成

[5040] 使用化合物2144-b、化合物2146-b、化合物2147-b、化合物2149-b作为试剂, 利用本实施例记载的基本的肽合成法进行肽合成, 得到化合物2143-化合物2151。LC/MS数据记载于表22中。

[5041] 化合物2180 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15, 18, 21, 24, 30, 34, 37-七甲基-9-[2-(4-甲基哌嗪-1-基)乙基]-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6, 9, 12, 15, 18, 21, 24, 27, 30, 34, 37-十一氮杂螺[4, 33]三十八烷-7, 10, 13, 16, 19, 22, 25, 28, 31, 35, 38-十一酮)的合成

[5042] 化合物2180的合成是按照以下简图进行的。



[5044] 使用化合物aa006-树脂 ((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip) (100mg, 0.411mmol/g, 0.0411mmol) 作为原料, 使所得化合物2035-a-树脂与2-(4-甲基哌嗪-1-基)乙胺盐酸盐 (CAS: 401817-30-9) (0.45mol/LN-甲基吡咯烷酮溶液, 0.3mL) 在DIPEA存在下进行反应, 由此用氨基取代碘, 得到化合物2180-a-树脂。按照基本的肽合成法进行之后的肽链延长和环化肽的合成, 得到化合物2180 ((11S, 17S, 26S, 29S, 33S, 36S)-11-[2-[3-氯-4-

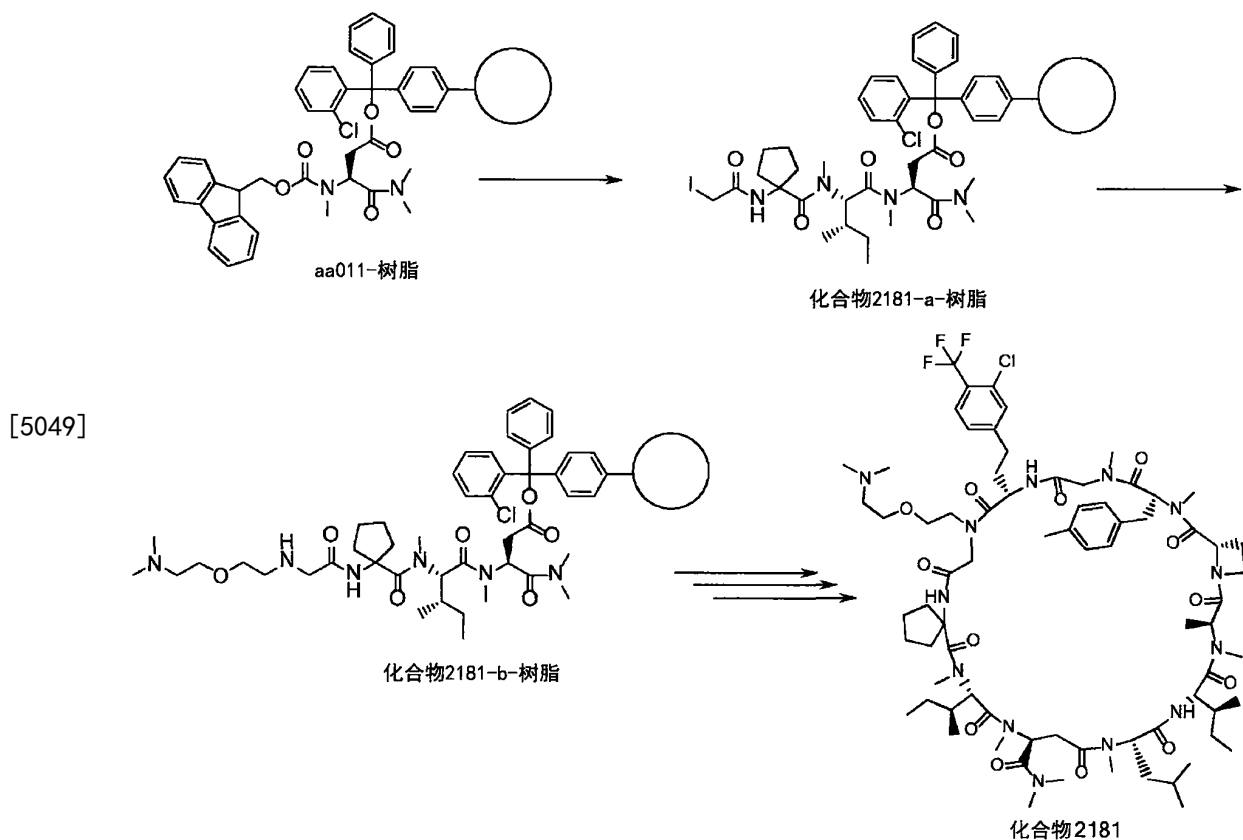
(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-9-[2-(4-甲基哌嗪-1-基)乙基]-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮) (6.4mg, 9%)。

[5045] LCMS (ESI) $m/z = 1528.3$ (M+H) +

[5046] 保留时间: 0.82分钟 (分析条件SQDFA05)

[5047] 化合物2181 ((3S,6S,9S,13S,16S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-[2-(二甲基氨基)乙氧基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)的合成

[5048] 化合物2181的合成是按照以下简图进行的。



[5050] 使用化合物aa011-树脂 ((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-NMe₂) (100mg, 0.456mmol/g, 0.0456mmol) 作为原料, 利用本实施例记载的基本的肽合成法进行肽合成, 接着Fmoc-MeIle-OH的延伸, 进行Fmoc-cLeu-OH的延伸和Fmoc基的脱保护, 然后用碘乙酸 (0.6mol/L, 0.3mL) 的NMP/DMF (1/1) 溶液和二异丙基碳二亚胺 (DIC) 的N,N-二甲基甲酰胺 (DMF) 溶液 (10% v/v, 0.36mL) 的混合液进行树脂上的氨基与碘乙酸的缩合, 得到树脂上的肽的N端被碘化的化合物2181-a-树脂。通过进一步使2-(2-氨基乙氧基)-N,N-二甲基乙胺 (CAS: 85322-63-0) (0.45mol/L N-甲基吡咯烷酮溶液, 0.3mL) 在DIPEA存在下反应, 碘被取代为氨基, 得到化合物2181-b-树脂。按照基本的肽合成法进行之后的肽链延伸和环化肽

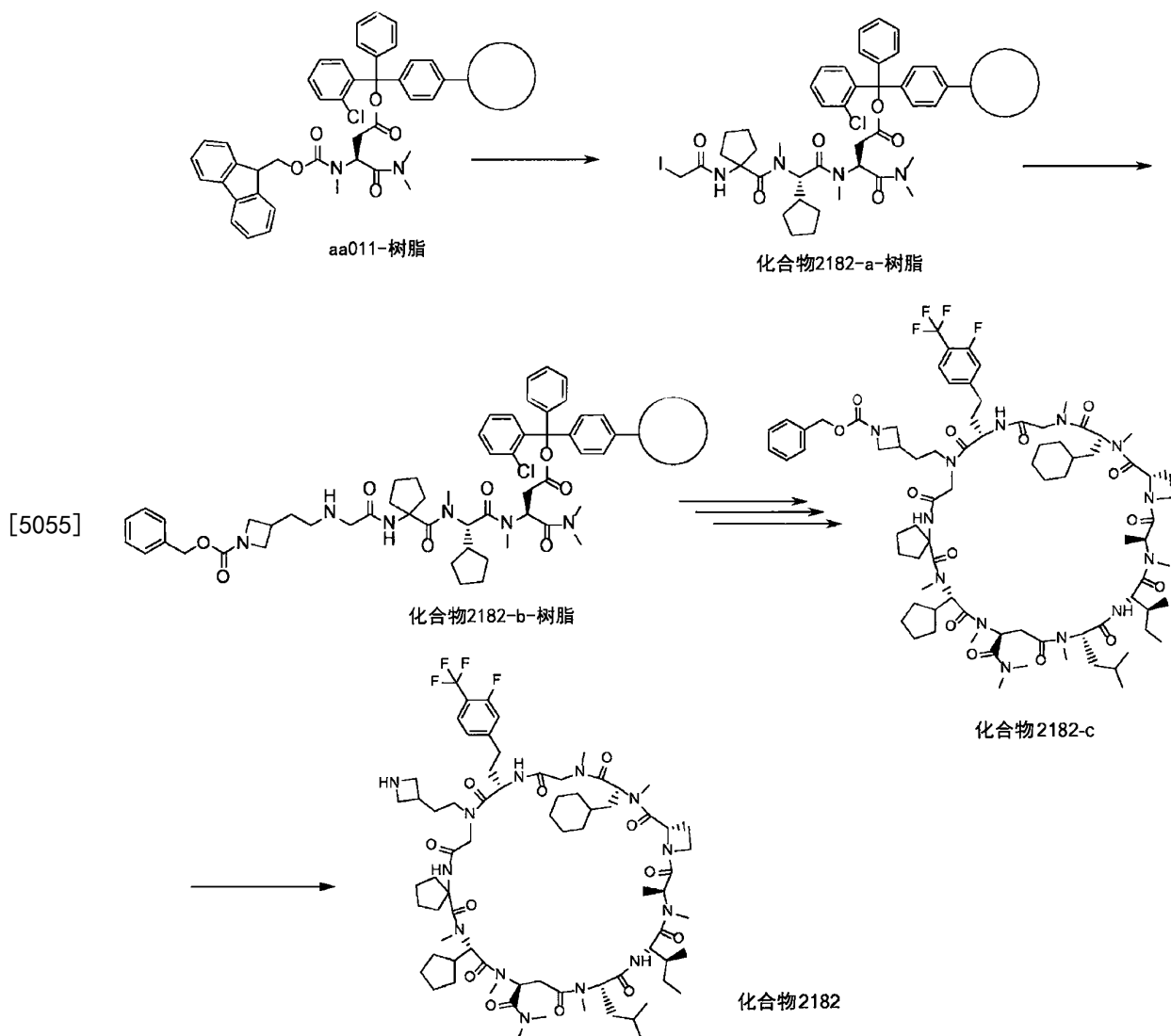
的合成,得到化合物2181((3S,6S,9S,13S,16S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-23-[2-[2-(二甲基氨基)乙氧基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6,16-双[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-31-(对甲基苯基甲基)螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)(1.7mg,2.5%)。

[5051] LCMS (ESI) $m/z = 1485.2$ (M+H) +

[5052] 保留时间:0.77分钟(分析条件SQDFA05)

[5053] 化合物2182 ((3S,6S,9S,13S,16S,25S,31S,34S)-23-[2-(氮杂环丁烷-3-基)乙基]-31-(环己基甲基)-16-环戊基-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)的合成

[5054] 化合物2182的合成是按照以下简图进行的。



[5056] 使用化合物aa011-树脂((3S)-4-(二甲基氨基)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(0-Trt(2-Cl)resin)-NMe2)(100mg,0.456mmol/g,0.0456mmol)作为原料,利用本实施例记载的基本的肽合成法进行肽

合成,接着Fmoc-MeGly(cPent)-OH(aa079)的延伸,进行Fmoc-cLeu-OH的延伸和Fmoc基的脱保护,然后用碘乙酸(0.6mol/L,0.3mL)的NMP/DMF(1/1)溶液和二异丙基碳二亚胺(DIC)的N,N-二甲基甲酰胺(DMF)溶液(10%v/v,0.36mL)的混合液进行树脂上的氨基与碘乙酸的缩合,得到树脂上的肽的N末端被碘化的化合物2182-a-树脂。通过进一步使1-氮杂环丁烷甲酸、3-(2-氨基乙基)-苯基甲基酯(CAS:1420898-03-8)(0.45mol/L的N-甲基吡咯烷酮溶液,0.3mL)在DIPEA存在下反应,得到化合物2182-b-树脂。按照基本的肽合成法进行之后的肽链延伸和环化肽的合成,得到化合物2182-c(6mg,2.5%)。

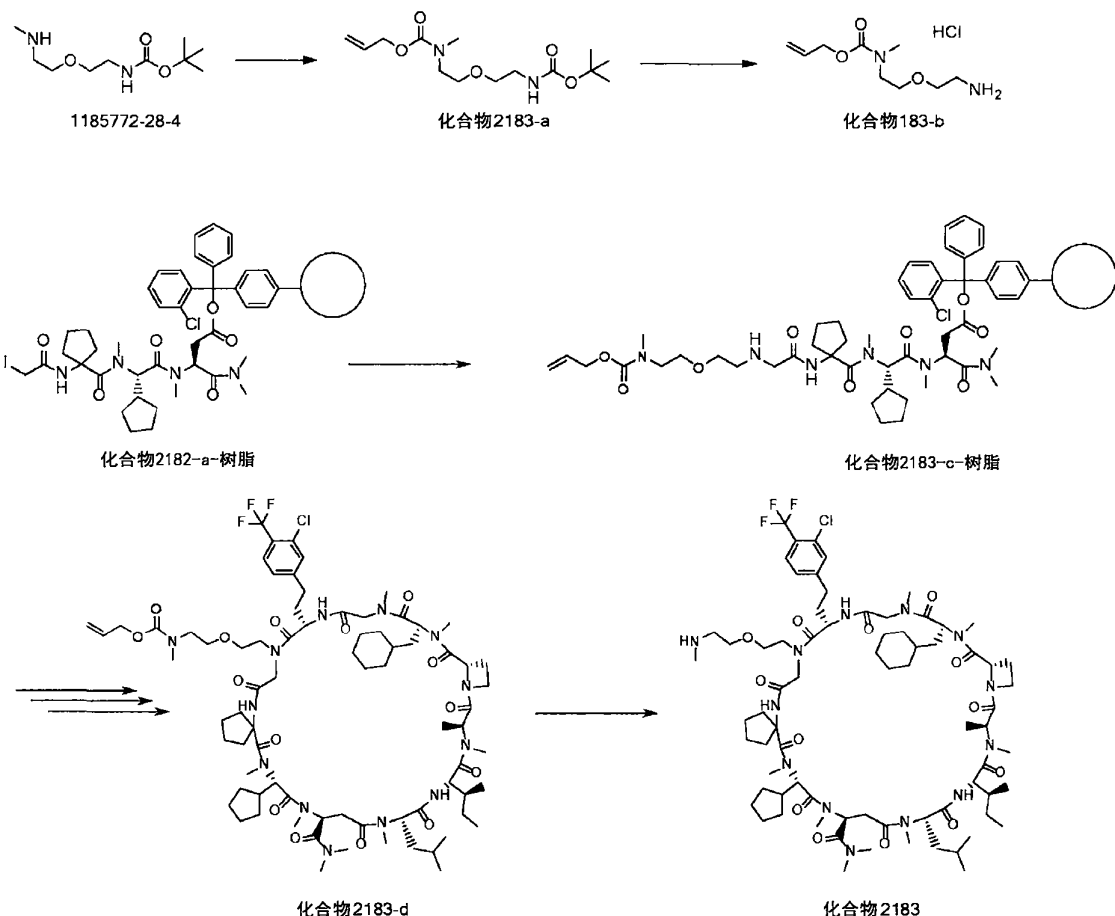
[5057] 将化合物2182-c(6mg)溶解于乙酸(1mL)中,加入10wt%钯-活性炭(5.0mg)。用氢气置换反应容器的气氛之后,在室温下搅拌1小时。加入10wt%钯-活性炭(5.0mg),在氢气气氛、室温下再搅拌2小时。用硅藻土过滤反应溶液,将固体用乙醇洗涤后,将滤液减压浓缩,得到粗产物。利用制备型HPLC纯化粗产物,得到化合物2182((3S,6S,9S,13S,16S,25S,31S,34S)-23-[2-(氮杂环丁烷-3-基)乙基]-31-(环己基甲基)-16-环戊基-25-[2-[3-氟-4-(三氟甲基)苯基]乙基]-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)(1.25mg,23%)。

[5058] LCMS(ESI) m/z = 1441.2 (M+H) +

[5059] 保留时间:2.42分钟(分析条件SQDFA051ong)

[5060] 化合物2183((3S,6S,9S,13S,16S,25S,31S,34S)-25-[2-[3-氯-4-(三氟甲基)苯基]乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-23-[2-[2-(甲基氨基)乙氧基]乙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺)的合成

[5061] 化合物2183的合成是按照以下简图进行的。



[5063] 将(2-(2-(甲基氨基)乙氧基)乙基氨基甲酸叔丁酯(CAS:1185772-28-4) (2.00g, 9.16mmol) 溶解于THF (3mL) 和水 (2mL) 的混合液中, 冷却至0℃。向其中加入碳酸钠水溶液 (2mol/L, 4.58mL, 1当量) 和氯甲酸烯丙酯(Alloc-Cl) (0.883g, 0.8当量) 后, 加入碳酸钠水溶液 (2mol/L, 2.29mL, 0.5当量), 在室温下搅拌45分钟。将反应液用水稀释, 用MTBE萃取2次。将有机层混合, 用饱和食盐水洗涤后, 用硫酸钠干燥, 在减压蒸馏除去溶剂。将得到的残渣用硅胶柱色谱(己烷/乙酸乙酯)纯化, 得到化合物2183-a (1.79g, 64.6%)。

[5064] LCMS (ESI) $m/z = 303.18 (M+H)^+$ (分析条件SQDFA05)

[5065] $^1\text{H-NMR}$ (DMSO- D_6) δ : 6.79-6.67 (1H, m), 6.00-5.83 (1H, m), 5.31-5.22 (1H, m), 5.20-5.13 (1H, m), 4.53-4.48 (1H, m), 3.49 (2H, t, $J = 5.6\text{Hz}$), 3.40-3.32 (4H, m), 3.05 (2H, q, $J = 5.8\text{Hz}$), 2.91-2.82 (3H, m), 1.37 (9H, s)。

[5066] 向根据上述得到的化合物2183-a (0.9g, 2.98mmol) 中加入氯化氢·1,4-二噁烷溶液 (4mol/L, 6.61mL, 8.5当量), 在室温下反应6小时。浓缩反应液, 得到化合物2183-b (1.08g)。

[5067] LCMS (ESI) $m/z = 203.06 (M+H)^+$ (分析条件SQDFA05)

[5068] $^1\text{H-NMR}$ (DMSO- D_6) δ : 7.89 (3H, bs), 5.92 (1H, ddd, $J = 16.2, 10.7, 5.2\text{Hz}$), 5.31-5.23 (1H, m), 5.21-5.16 (1H, m), 4.53-4.49 (2H, m), 3.62-3.51 (4H, m), 3.44-3.37 (2H, m), 3.00-2.92 (2H, m), 2.92-2.84 (3H, m)。

[5069] 使化合物2182-a-树脂、与N-[2-(2-氨基乙氧基)乙基]-N-甲基氨基甲酸2-丙-1-酯盐酸盐(化合物2183-b) (0.45mol/L的N-甲基吡咯烷酮溶液, 0.3mL) 在DIPEA存在下反应, 得到化合物2183-c-树脂。按照基本的肽合成法进行之后的肽链延伸和环化肽的合成, 得到

化合物2183-d (6.59mg)。

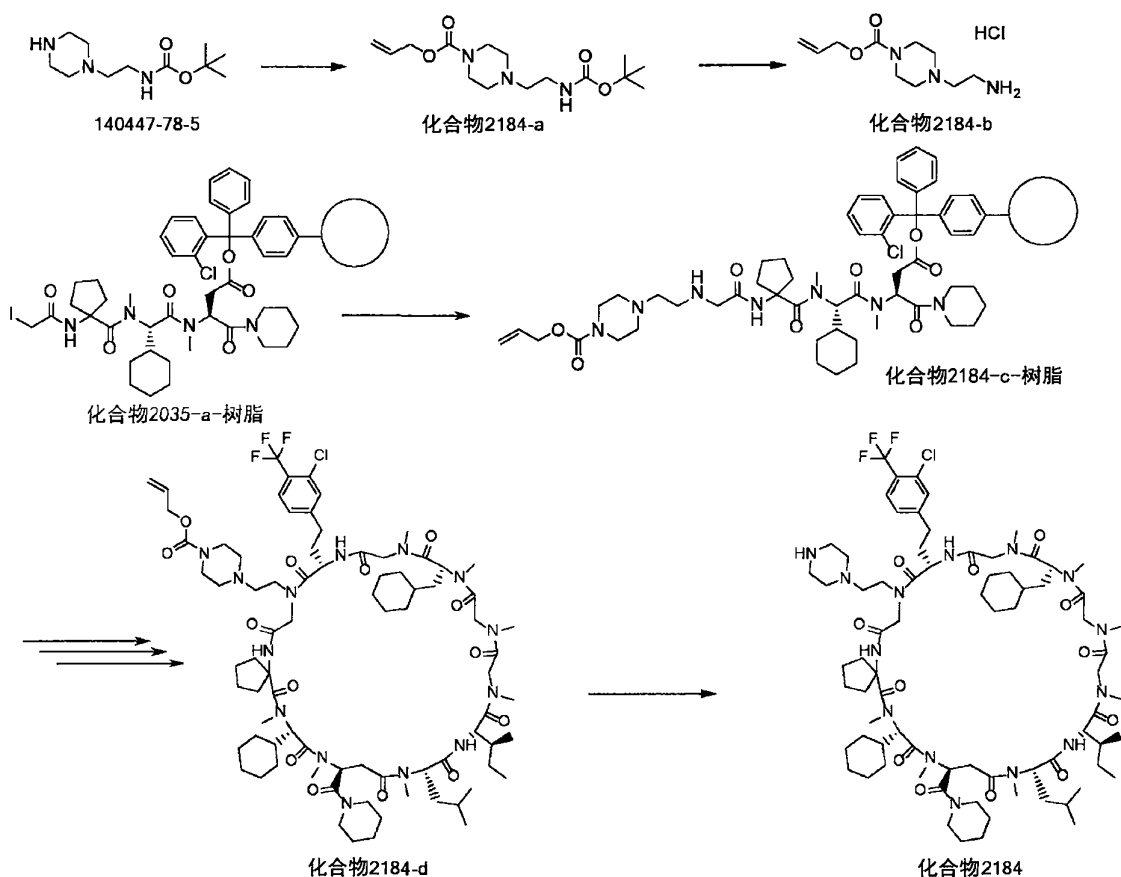
[5070] 在氮气气氛下将化合物2183-d (6.59mg) 溶解于四氢呋喃 (1mL) 中, 加入氯化锌的四氢呋喃 (0.5M, 84μL)、四甲基二硅氧烷 (30μL) 和四 (三苯基膦) 钯 (2.4mg)。将反应容器在室温下搅拌3小时。减压浓缩反应溶液, 得到粗产物。将粗产物利用制备型HPLC纯化, 得到化合物2183 ((3S, 6S, 9S, 13S, 16S, 25S, 31S, 34S) -25-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-31-(环己基甲基)-16-环戊基-9-异丁基-N,N,3,4,10,14,17,29,32-九甲基-23-[2-[2-(甲基氨基) 乙氧基] 乙基]-6-[(1S)-1-甲基丙基]-2,5,8,11,15,18,21,24,27,30,33-十一氧代-螺[1,4,7,10,14,17,20,23,26,29,32-十一氮杂双环[32.2.0]三十六烷-19,1'-环戊烷]-13-甲酰胺) (1.18mg, 19%)。

[5071] LCMS (ESI) m/z = 1475.2 (M+H) +

[5072] 保留时间: 2.55分钟 (分析条件SQDFA051ong)

[5073] 化合物2184 ((11S, 17S, 26S, 29S, 33S, 36S) -11-[2-[3-氯-4-(三氟甲基) 苯基] 乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-哌嗪-1-基乙基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮) 的合成

[5074] 化合物2184的合成是按照以下简图进行的。



[5076] 将N-[2-(1-哌嗪基) 乙基] 氨基甲酸1,1-二甲基乙酯 (CAS:140447-78-5) (4.84g, 21.11mmol) 溶解于THF (3mL) 和水 (2mL) 的混合液中, 冷却至0℃。向其中加入碳酸钠水溶液 (2mol/L, 10.55mL, 1当量) 和氯甲酸烯丙酯 (Alloc-Cl) (2.035g, 0.8当量) 后, 加入碳酸钠水溶液 (2mol/L, 5.28mL, 0.5当量), 在室温下搅拌3小时。将反应液用水稀释, 用MTBE萃取2次。

将有机层混合,用饱和食盐水洗涤后,用硫酸钠干燥,在减压下蒸馏除去溶剂。将得到的残渣用硅胶柱色谱(己烷/乙酸乙酯)纯化,得到化合物2184-a(4.46g,84%)。

[5077] LCMS (ESI) $m/z=314.19$ (M+H) +

[5078] 保留时间:0.85分钟(分析条件SQDAA05)

[5079] 向按照上述得到的化合物2184-a(1g,3.19mmol)中加入氯化氢·1,4-二噁烷溶液(4mol/L,6.78mL,8.5当量),在室温下反应过夜。浓缩反应液,得到化合物2184-b(884.1mg)。

[5080] LCMS (ESI) $m/z=214.10$ (M+H) + (分析条件SQDAA05)

[5081] $^1\text{H-NMR}$ (DMSO- D_6) δ :8.40 (3H,bs),5.94 (1H,ddd, $J=17.2,10.5,5.3\text{Hz}$),5.31 (1H,dq, $J=17.2,1.6\text{Hz}$),5.22 (1H,dq, $J=10.5,1.4\text{Hz}$),4.60-4.55 (2H,m),4.20-3.00 (12H,m)。

[5082] 使化合物2035-a-树脂(100mg,0.0462mmol)与化合物2184-b(0.45mol/L的N-甲基吡咯烷酮溶液,0.3mL)在DIPEA的存在下反应,得到化合物2184-c-树脂。按照基本的肽合成法进行之后的肽链延伸和环化肽的合成,得到化合物2184-d的粗产物。

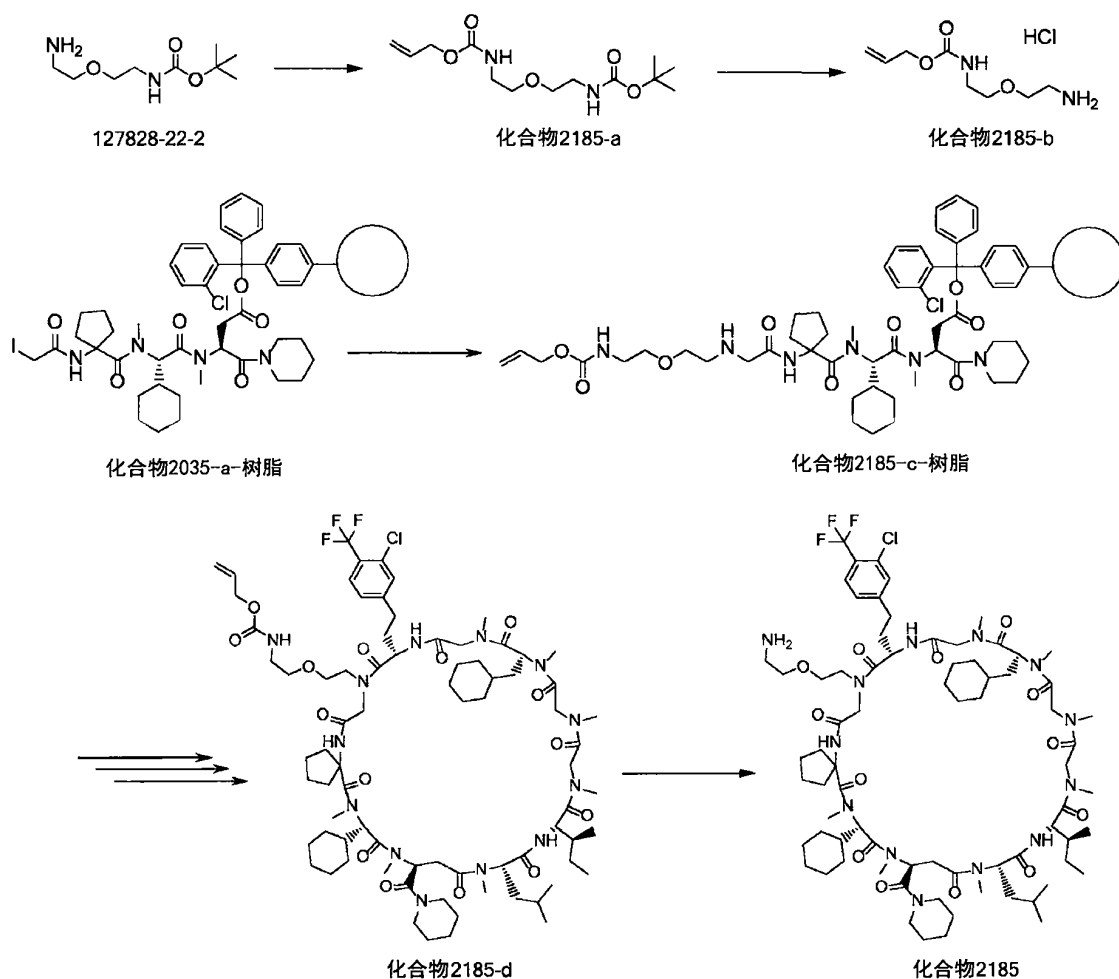
[5083] 向化合物2184-d的THF(0.25mL)中,依次加入苯基硅烷(3.5mg,0.32mmol)和四(三苯基磷)钼(14.5mg,0.013mmol),在室温下反应8小时30分钟。将得到的反应液用反相HPLC纯化,得到化合物2184((11S,17S,26S,29S,33S,36S)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-9-(2-哌嗪-1-基乙基)-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)(2.6mg,4.2%)。

[5084] LCMS (ESI) $m/z=1511.7$ (M-H) -

[5085] 保留时间:0.80分钟(分析条件SQDAA50)

[5086] 化合物2185((11S,17S,26S,29S,33S,36S)-9-[2-(2-氨基乙氧基)乙基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)的合成

[5087] 化合物2185的合成是按照以下简图进行的。



[5088]

[5089] 将[2-(2-氨基乙氧基)乙基]氨基甲酸1,1-二甲基乙酯(CAS:127828-22-2) (2g, 9.79mmol) 溶解于THF (3mL) 和水 (2mL) 的混合液中,冷却至0℃。在0℃向其中加入碳酸钠水溶液 (2mol/L, 4.9mL, 1当量) 和氯甲酸烯丙酯 (Alloc-Cl) (0.828mL, 7.83mmol, 0.8当量) 后,加入碳酸钠水溶液 (2mol/L, 2.448mL, 0.5当量) 并在室温下搅拌。2.5小时后,将反应液用水稀释,用MTBE萃取2次。将有机层混合,用饱和食盐水洗涤后,用硫酸钠干燥,在减压下蒸馏除去溶剂。将得到的残渣用硅胶柱色谱(己烷/乙酸乙酯)纯化,得到化合物2185-a (1.5g, 66%)。

[5090] LCMS (ESI) $m/z = 289.13$ (M+H) +

[5091] 保留时间:0.62分钟(分析条件SQDFA05)

[5092] 向通过上述得到的化合物2185-a (1.5g, 5.2mmol) 中加入氯化氢·1,4-二噁烷溶液 (4mol/L, 11.05mL, 8.5当量),在室温下搅拌6小时。在减压下从反应液中蒸馏除去溶剂,得到化合物2185-b (1.35g)。

[5093] LCMS (ESI) $m/z = 189.03$ (M+H) + (分析条件SQDFA05)

[5094] $^1\text{H-NMR}$ (DMSO- D_6) δ : 7.96 (3H, bs), 7.32-7.20 (1H, m), 5.91 (1H, ddd, $J = 17.2, 10.6, 5.3\text{Hz}$), 5.33-5.24 (1H, m), 5.20-5.15 (1H, m), 4.53-4.44 (2H, m), 3.65-3.52 (2H, m), 3.63 (2H, t, $J = 5.7\text{Hz}$), 3.19 (2H, q, $J = 5.7\text{Hz}$), 3.03-2.90 (2H, m)。

[5095] 通过使化合物2035-a-树脂 (100mg, 0.0462mmol) 与化合物2185-b (0.45mol/L的N-甲基吡咯烷酮溶液, 0.3mL) 在DIPEA的存在下反应,得到化合物2185-c-树脂。按照基本的肽

合成法进行之后的肽链延伸和环化肽的合成,得到化合物2185-d (6.66mg)。

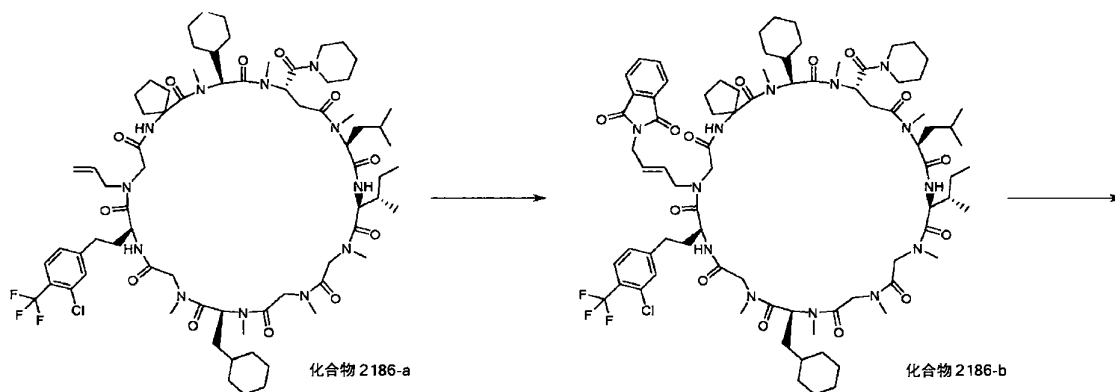
[5096] 将化合物2185-d (6.66mg) 在氮气氛下溶解于四氢呋喃(1mL)中,加入氯化锌的四氢呋喃溶液(0.5mol/L,84 μ L)、四甲基二硅氧烷(30 μ L)和四(三苯基膦)钯(2.4mg),在室温下搅拌3小时。减压浓缩反应液,得到粗产物。利用制备型HPLC纯化粗产物,得到化合物2185((11S,17S,26S,29S,33S,36S)-9-[2-(2-氨基乙氧基)乙基]-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)(1.51mg,24%)。

[5097] LCMS (ESI) m/z = 1489.2 (M+H)⁺

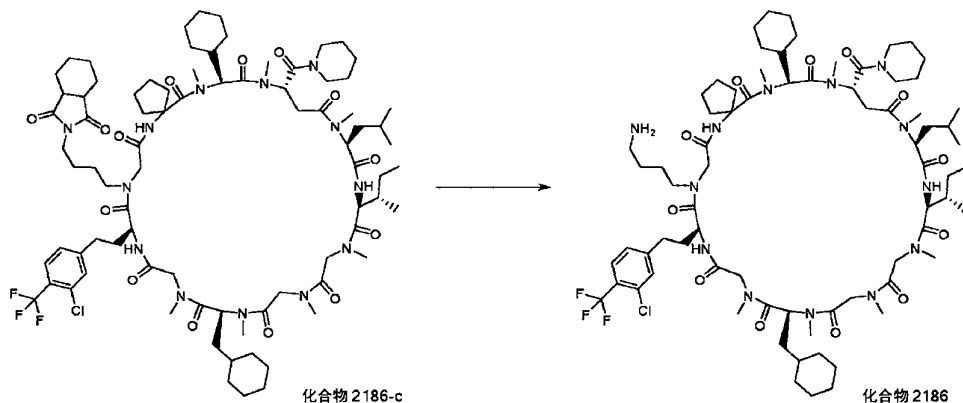
[5098] 保留时间:2.73分钟(分析条件SQDFA051ong)

[5099] 化合物2186((11S,17S,26S,29S,33S,36S)-9-(4-氨基丁基)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮)的合成

[5100] 化合物2186的合成是按照以下简图进行的。



[5101]



[5102] 使用化合物aa006-树脂((3S)-3-[9H-芴-9-基甲氧基羰基(甲基)氨基]-4-氧代-4-哌啶-1-基丁酸-2-氯三苯甲酯树脂、Fmoc-MeAsp(O-Trt(2-Cl)resin)-pip)(0.411mmol/g,4.2g,1.726mmol)作为起始原料,并且使用Fmoc-MeChg-OH、Fmoc-cLeu-OH、Fmoc-AllylGly-OH、Fmoc-Hph(4-CF₃-3-Cl)-OH、Fmoc-MeGly-OH、Fmoc-MeCha-OH、Fmoc-MeGly-OH、Fmoc-MeGly-OH、Fmoc-Ile-OH、Fmoc-MeLeu-OH,进行上述基本的肽合成法(基于Fmoc法的肽延伸反应、从树脂切割延伸后的肽、切割出的肽的环化(使用(1-氰基-2-乙氧基-2-氧

代亚乙基氨基氧基)二甲基氨基吗啉代碳鎓六氟磷酸盐(COMU)作为环化试剂)以及环状肽的纯化(反相中压柱色谱,C18,甲醇/10mM乙酸铵水溶液)),得到目标化合物2186-a (1.282g,0.893mmol,52%)。

[5103] LCMS (ESI) $m/z=1440.13$ (M-H) -

[5104] 保留时间:0.88分钟(分析条件SQDAA50)

[5105] 将化合物2186-a (50.0mg,0.35mmol) 溶解于二氯乙烷 (0.69mL) 中,加入Stewart-Grubbs催化剂 (29.7mg,1.5当量) 和N-烯丙基邻苯二甲酰亚胺 (51.9mg,8当量),在室温下搅拌2小时。再加入Stewart-Grubbs催化剂 (30mg,1.5当量) 和N-烯丙基邻苯二甲酰亚胺 (104mg,16当量),搅拌3小时后,减压浓缩反应溶液,利用中压反相柱色谱(含有0.1%甲酸的乙腈/含有0.1%甲酸的水)纯化得到的残渣,得到化合物2186-b (2.0mg,3.6%)。

[5106] 将化合物2186-b (2.0mg,1.249 μ mol) 溶解于乙醇 (1.0mL) 中,并向其中加入氧化铂 (IV) (3.9mg,14当量)。将反应容器的气氛置换为氢气,在室温下搅拌30分钟。用硅藻土过滤反应溶液,用乙醇洗涤固体,然后将滤液减压浓缩,得到化合物2186-c。未进行进一步的纯化地进行下一步反应。将得到的化合物2186-c溶解于乙醇 (1.0mL) 中,加入一水合肼 (0.03mL),在80℃搅拌24小时。在减压下从反应溶液中蒸馏除去溶剂,得到化合物2186的粗产物。将该粗产物与使用化合物2186-a (0.7mg) 同样经过烯烃复分解反应和基于氧化铂的还原反应进一步用水合肼处理得到的化合物2186的粗产物混合,用反相HPLC纯化,由此得到化合物2186 ((11S,17S,26S,29S,33S,36S) -9-(4-氨基丁基)-11-[2-[3-氯-4-(三氟甲基)苯基]乙基]-36-环己基-17-(环己基甲基)-29-异丁基-15,18,21,24,30,34,37-七甲基-26-[(1S)-1-甲基丙基]-33-(哌啶-1-羰基)-6,9,12,15,18,21,24,27,30,34,37-十一氮杂螺[4.33]三十八烷-7,10,13,16,19,22,25,28,31,35,38-十一酮) (0.48mg,1%)。

[5107] LCMS (ESI) $m/z=1473.3$ (M+H) +

[5108] 保留时间:2.77分钟(分析条件SQDFA051ong)

[5109] [表22]

[5110]

化合物编号	测定条件	保留时间(分钟)	MS峰 (m/z)	MS极性
1	SSC-FA-03	2.155	1480.1	(M-H)-
2	SSC-TFA-07	1.575	1318.8	(M+H)+
3	SSC-FA-03	1.948	1520.8	(M-H)-
4	SSC-FA-03	1.788	1383.9	(M-H)-
5	SSC-A-AF-01	7.456	1436.0	(M+H)+
6	SSC-AF-00	2.247	1584.9	(M-H)-
7	SSC-FA-03	1.823	1414.0	(M-H)-
8	SSC-AF-00	2.225	1341.0	(M-H)-
9	SSC-FA-03	1.688	1414.0	(M-H)-
10	SSC-FA-03	2.165	1572.8	(M-H)-
11	SSC-A-FA-01	5.059	1425.7	(M-H)-
12	SSC-TFA-07	1.416	1401.7	(M+H)+
13	SSC-AF-00	2.160	1470.0	(M-H)-
14	SSC-TFA-07	1.415	1288.7	(M+H)+
15	SSC-TFA-07	1.408	1441.7	(M+H)+
16	SSC-FA-03	1.708	1404.0	(M-H)-
17	SSC-FA-03	1.827	1427.8	(M-H)-
18	SSC-TFA-07	1.337	1238.7	(M+H)+
19	SSC-AF-00	2.084	1224.6	(M-H)-
20	SSC-FA-03	1.748	1429.9	(M-H)-
21	SSC-TFA-07	1.296	1379.6	(M+H)+
22	SSC-TFA-07	1.577	1332.7	(M+H)+
23	SSC-FA-03	2.037	1440.0	(M-H)-
24	SSC-AF-00	2.112	1373.9	(M-H)-
25	SSC-AA-20	2.107	1330.8	(M-H)-
26	SSC-A-FA-01	6.444	1574.7	(M+H)+
27	SSC-AF-00	2.209	1481.9	(M-H)-
28	SSC-TFA-07	1.295	1210.8	(M+H)+
29	SSC-AA-20	2.103	1389.7	(M-H)-
30	SSC-TFA-07	1.599	1441.8	(M+H)+
31	SSC-TFA-07	1.480	1258.9	(M+H)+
32	SSC-AF-00	2.060	1367.9	(M-H)-
33	SSC-A-FA-02	6.625	1412.7	(M+H)+
34	SSC-A-FA-02	6.601	1454.6	(M-H)-
35	SSC-AF-00	2.153	1411.9	(M-H)-
36	SSC-FA-03	1.727	1504.8	(M-H)-
37	SSC-TFA-07	1.615	1453.8	(M+H)+
38	SSC-TFA-07	1.627	1356.7	(M+H)+
39	SSC-A-FA-01	6.352	1434.6	(M+H)+
40	SSC-AF-00	2.156	1441.8	(M-H)-
41	SSC-A-AF-01	7.864	1536.8	(M-H)-
42	SSC-FA-03	1.881	1340.5	(M-H)-
43	SSC-FA-03	2.056	1494.0	(M-H)-
44	SSC-FA-03	1.749	1418.0	(M-H)-
45	SSC-FA-03	1.953	1453.9	(M-H)-
46	SSC-TFA-07	1.403	1372.0	(M+H)+
47	SSC-AF-00	2.053	1433.9	(M-H)-
48	SSC-A-AF-02	8.379	1475.8	(M-H)-
49	SSC-AF-00	2.168	1339.0	(M-H)-
50	SSC-TFA-07	1.404	1405.7	(M+H)+
51	SSC-TFA-07	1.475	1322.7	(M+H)+
52	SSC-AF-00	2.165	1490.0	(M-H)-
53	SSC-TFA-07	1.335	1444.9	(M+H)+

[5111]

54	SSC-A-FA-01	5.477	1503.7	(M-H)-
55	SSC-A-AF-01	7.507	1448.1	(M-H)-
56	SSC-AF-00	2.199	1411.9	(M-H)-
57	SSC-TFA-07	1.532	1320.7	(M+H)+
58	SSC-AF-00	2.221	1452.0	(M-H)-
59	SSC-TFA-07	1.545	1316.7	(M+H)+
60	SSC-AF-00	2.204	1426.0	(M-H)-
61	SSC-TFA-07	1.528	1292.7	(M+H)+
62	SSC-A-AF-02	7.791	1414.6	(M+H)+
63	SSC-AF-00	2.223	1504.8	(M-H)-
64	SSC-AF-00	2.340	1383.0	(M-H)-
65	SSC-TFA-07	1.439	1366.5	(M+H)+
66	SSC-A-FA-02	6.275	1438.7	(M+H)+
67	SSC-FA-03	1.788	1381.8	(M-H)-
68	SSC-AF-00	2.223	1437.8	(M-H)-
69	SSC-AF-00	2.165	1421.9	(M-H)-
70	SSC-TFA-07	1.588	1445.7	(M+H)+
71	SSC-AF-00	2.083	1332.4	(M-H)-
72	SSC-FA-03	1.877	1363.7	(M-H)-
73	SSC-FA-03	1.884	1485.7	(M-H)-
74	SSC-A-FA-02	6.389	1376.8	(M+H)+
75	SSC-TFA-07	1.407	1262.6	(M+H)+
76	SSC-TFA-07	1.524	1316.7	(M+H)+
77	SSC-AF-00	2.164	1284.7	(M-H)-
78	SSC-FA-03	1.844	1435.9	(M-H)-
79	SSC-FA-03	1.909	1314.8	(M-H)-
80	SSC-AF-00	2.153	1427.9	(M-H)-
81	SSC-TFA-07	1.545	1318.7	(M+H)+
82	SSC-FA-03	1.899	1328.4	(M+H)+
83	SSC-TFA-07	1.453	1320.8	(M+H)+
84	SSC-AF-00	2.244	1451.8	(M-H)-
85	SSC-A-FA-02	6.600	1444.6	(M+H)+
86	SSC-AF-00	2.189	1514.1	(M-H)-
87	SSC-AF-00	2.276	1480.0	(M-H)-
88	SSC-TFA-07	1.463	1290.7	(M+H)+
89	SSC-AF-00	2.180	1581.9	(M-H)-
90	SSC-AF-00	2.292	1517.8	(M+H)+
91	SSC-FA-03	1.785	1413.9	(M-H)-
92	SSC-AF-00	2.203	1490.0	(M-H)-
93	SSC-AF-00	2.033	1234.7	(M-H)-
94	SSC-FA-03	1.928	1475.8	(M-H)-
95	SSC-FA-03	2.059	1493.8	(M-H)-
96	SSC-TFA-07	1.424	1389.8	(M+H)+
97	SSC-FA-03	1.833	1480.8	(M-H)-
98	SSC-FA-03	1.808	1272.9	(M-H)-
99	SSC-A-FA-02	6.297	1434.7	(M-H)-
100	SSC-TFA-07	1.465	1411.6	(M+H)+
101	SSC-TFA-07	1.407	1274.6	(M+H)+
102	SSC-AF-00	2.140	1388.0	(M-H)-
103	SSC-FA-03	1.939	1441.7	(M-H)-
104	SSC-A-FA-01	5.293	1532.7	(M-H)-
105	SSC-A-AF-01	8.051	1590.9	(M+H)+
106	SSC-TFA-07	1.577	1427.7	(M+H)+
107	SSC-A-FA-02	6.531	1366.6	(M+H)+

[5112]

108	SSC-TFA-07	1.476	1367.7	(M+H)+
109	SSC-FA-03	1.756	1232.5	(M-H)-
110	SSC-FA-03	1.919	1458.5	(M-H)-
111	SSC-FA-03	2.101	1587.8	(M-H)-
112	SSC-TFA-07	1.459	1345.7	(M+H)+
113	SSC-TFA-07	1.616	1356.7	(M+H)+
114	SSC-AF-00	2.140	1274.7	(M-H)-
115	SSC-FA-03	1.868	1383.7	(M-H)-
116	SSC-TFA-07	1.589	1318.7	(M+H)+
117	SSC-FA-03	1.853	1320.9	(M-H)-
118	SSC-FA-03	2.035	1457.6	(M-H)-
119	SSC-TFA-07	1.549	1310.8	(M+H)+
120	SSC-FA-03	1.892	1479.7	(M-H)-
121	SSC-AF-00	2.120	1316.6	(M-H)-
122	SSC-TFA-07	1.547	1316.7	(M+H)+
123	SSC-TFA-07	1.645	1332.7	(M+H)+
124	SSC-TFA-07	1.589	1364.6	(M+H)+
125	SSC-AF-00	2.192	1513.9	(M-H)-
126	SSC-FA-03	1.788	1399.9	(M-H)-
127	SSC-AF-00	2.141	1409.8	(M-H)-
128	SSC-A-FA-01	5.245	1409.8	(M-H)-
129	SSC-A-FA-01	5.524	1483.0	(M-H)-
130	SSC-A-AF-01	7.763	1496.7	(M+H)+
131	SSC-TFA-07	1.492	1387.7	(M+H)+
132	SSC-A-FA-02	6.548	1464.6	(M+H)+
133	SSC-AF-00	2.127	1274.7	(M+H)+
134	SSC-FA-03	1.717	1367.6	(M-H)-
135	SSC-AF-00	2.163	1383.9	(M-H)-
136	SSC-TFA-07	1.515	1425.6	(M+H)+
137	SSC-FA-03	2.113	1454.0	(M-H)-
138	SSC-A-AF-02	8.124	1454.6	(M+H)+
139	SSC-TFA-07	1.481	1397.8	(M+H)+
140	SSC-AF-00	2.113	1441.8	(M-H)-
141	SSC-FA-03	1.843	1441.8	(M-H)-
142	SSC-TFA-07	1.533	1314.8	(M+H)+
143	SSC-FA-03	2.095	1587.9	(M-H)-
144	SSC-A-AF-01	7.877	1437.8	(M-H)-
145	SSC-FA-03	1.904	1475.7	(M-H)-
146	SSC-FA-03	1.795	1310.4	(M-H)-
147	SSC-AF-00	2.289	1530.0	(M+H)+
148	SSC-FA-03	1.949	1427.9	(M-H)-
149	SSC-TFA-07	1.455	1278.7	(M+H)+
150	SSC-FA-03	1.873	1412.0	(M-H)-
151	SSC-FA-03	1.889	1306.7	(M-H)-
152	SSC-AF-00	2.093	1403.8	(M-H)-
153	SSC-TFA-07	1.349	1226.7	(M+H)+
154	SSC-A-FA-01	4.451	1470.6	(M+H)+
155	SSC-A-FA-01	5.567	1423.8	(M-H)-
156	SSC-AF-00	2.148	1373.9	(M-H)-
157	SSC-AF-00	2.175	1424.0	(M-H)-
158	SSC-TFA-07	1.493	1360.6	(M+H)+
159	SSC-FA-03	1.847	1401.9	(M-H)-
160	SSC-AF-00	2.233	1429.5	(M+H)+
161	SSC-AF-00	2.171	1555.7	(M-H)-

[5113]

162	SSC-AF-00	2.091	1463.9	(M-H)-
163	SSC-A-FA-01	5.444	1455.8	(M-H)-
164	SSC-AF-00	2.193	1424.0	(M-H)-
165	SSC-TFA-07	1.468	1320.8	(M+H)+
166	SSC-AF-00	2.211	1462.0	(M-H)-
167	SSC-TFA-07	1.425	1319.8	(M+H)+
168	SSC-FA-03	2.059	1537.6	(M-H)-
169	SSC-AF-00	2.184	1503.9	(M-H)-
170	SSC-AA-20	2.055	1244.6	(M-H)-
171	SSC-FA-03	1.953	1457.9	(M-H)-
172	SSC-FA-03	1.933	1437.9	(M-H)-
173	SSC-AF-00	2.108	1555.9	(M-H)-
174	SSC-FA-03	1.755	1475.9	(M-H)-
175	SSC-AF-00	2.077	1389.6	(M+H)+
176	SSC-AF-00	2.109	1455.8	(M-H)-
177	SSC-AF-00	2.179	1466.8	(M-H)-
178	SSC-TFA-07	1.497	1304.8	(M+H)+
179	SSC-FA-03	2.097	1509.9	(M-H)-
180	SSC-TFA-07	1.488	1498.8	(M+H)+
181	SSC-TFA-07	1.453	1314.7	(M+H)+
182	SSC-AF-00	2.161	1423.8	(M-H)-
183	SSC-TFA-07	1.489	1302.7	(M+H)+
184	SSC-TFA-07	1.269	1361.8	(M+H)+
185	SSC-TFA-07	1.525	1316.7	(M+H)+
186	SSC-FA-03	1.887	1328.4	(M+H)+
187	SSC-FA-03	1.911	1385.9	(M-H)-
188	SSC-FA-03	1.817	1497.8	(M-H)-
189	SSC-TFA-07	1.544	1354.7	(M+H)+
190	SSC-A-AF-01	7.563	1466.6	(M-H)-
191	SSC-AF-00	2.135	1386.0	(M-H)-
192	SSC-FA-03	1.991	1435.9	(M-H)-
193	SSC-A-FA-01	5.300	1367.9	(M-H)-
194	SSC-FA-03	1.837	1312.5	(M+H)+
195	SSC-FA-03	1.811	1383.9	(M-H)-
196	SSC-TFA-07	1.380	1262.7	(M+H)+
197	SSC-TFA-07	1.469	1399.8	(M+H)+
198	SSC-A-FA-02	6.440	1368.7	(M+H)+
199	SSC-TFA-07	1.440	1419.9	(M+H)+
200	SSC-FA-03	2.148	1467.6	(M-H)-
201	SSC-AF-00	2.105	1410.0	(M-H)-
202	SSC-AF-00	2.165	1367.7	(M-H)-
203	SSC-A-FA-02	6.648	1456.6	(M+H)+
204	SSC-TFA-07	1.532	1316.7	(M+H)+
205	SSC-FA-03	2.016	1413.9	(M-H)-
206	SSC-FA-03	1.836	1298.5	(M-H)-
207	SSC-TFA-07	1.403	1330.6	(M+H)+
208	SSC-AF-00	2.156	1469.7	(M-H)-
209	SSC-A-AF-01	7.703	1489.9	(M+H)+
210	SSC-TFA-07	1.543	1304.7	(M+H)+
211	SSC-TFA-07	1.445	1286.7	(M+H)+
212	SSC-TFA-07	1.432	1276.7	(M+H)+
213	SSC-TFA-07	1.604	1318.7	(M+H)+
214	SSC-TFA-07	1.453	1322.9	(M+H)+
215	SSC-A-FA-01	5.729	1410.0	(M-H)-

[5114]

216	SSC-FA-03	1.985	1505.8	(M-H)-
217	SSC-TFA-07	1.632	1334.7	(M+H)+
218	SSC-FA-03	1.879	1494.9	(M-H)-
219	SSC-AF-00	2.105	1232.8	(M+H)+
220	SSC-TFA-07	1.487	1387.7	(M+H)+
221	SSC-TFA-07	1.505	1399.7	(M+H)+
222	SSC-A-FA-01	6.188	1548.7	(M+H)+
223	SSC-TFA-07	1.479	1292.7	(M+H)+
224	SSC-AA-20	2.103	1389.7	(M-H)-
225	SSC-AF-00	2.200	1438.0	(M-H)-
226	SSC-FA-03	2.073	1467.8	(M-H)-
227	SSC-TFA-07	1.397	1282.7	(M+H)+
228	SSC-AF-00	2.136	1427.8	(M-H)-
229	SSC-TFA-07	1.424	1413.7	(M+H)+
230	SSC-TFA-07	1.499	1302.6	(M+H)+
231	SSC-TFA-07	1.524	1302.8	(M+H)+
232	SSC-AF-00	2.144	1407.9	(M-H)-
233	SSC-TFA-07	1.353	1492.8	(M+H)+
234	SSC-AF-00	2.144	1397.6	(M-H)-
235	SSC-FA-03	1.708	1435.7	(M-H)-
236	SSC-AF-00	2.132	1400.0	(M-H)-
237	SSC-AF-00	2.264	1366.9	(M-H)-
238	SSC-TFA-07	1.399	1323.7	(M+H)+
239	SSC-FA-03	1.887	1527.8	(M-H)-
240	SSC-AF-00	2.152	1508.8	(M-H)-
241	SSC-A-FA-02	6.756	1364.7	(M-H)-
242	SSC-TFA-07	1.472	1290.7	(M+H)+
243	SSC-FA-03	1.543	1472.8	(M-H)-
244	SSC-FA-03	1.719	1360.7	(M-H)-
245	SSC-AF-00	2.096	1513.9	(M-H)-
246	SSC-FA-03	1.875	1383.8	(M-H)-
247	SSC-FA-03	1.857	1485.8	(M-H)-
248	SSC-TFA-07	1.439	1288.6	(M+H)+
249	SSC-FA-03	2.119	1465.9	(M-H)-
250	SSC-FA-03	2.155	1485.9	(M-H)-
251	SSC-AF-00	2.177	1523.0	(M+H)+
252	SSC-TFA-07	1.353	1362.7	(M+H)+
253	SSC-AF-00	2.163	1467.5	(M-H)-
254	SSC-AF-00	2.101	1441.9	(M-H)-
255	SSC-AF-00	2.345	1543.8	(M+H)+
256	SSC-FA-03	1.793	1399.7	(M+H)+
257	SSC-TFA-07	1.484	1334.8	(M+H)+
258	SSC-AF-00	2.124	1296.7	(M-H)-
259	SSC-AF-00	2.228	1533.9	(M-H)-
260	SSC-TFA-07	1.472	1346.8	(M+H)+
261	SSC-TFA-07	1.489	1302.8	(M+H)+
262	SSC-TFA-07	1.489	1274.8	(M+H)+
263	SSC-A-AF-01	7.788	1453.9	(M-H)-
264	SSC-TFA-07	1.405	1276.7	(M+H)+
265	SSC-TFA-07	1.405	1299.8	(M+H)+
266	SSC-TFA-07	1.377	1343.7	(M+H)+
267	SSC-FA-03	1.991	1299.0	(M-H)-
268	SSC-TFA-07	1.423	1276.7	(M+H)+
269	SSC-A-FA-02	6.321	1430.6	(M+H)+

[5115]

270	SSC-AF-00	2.216	1449.8	(M-H)-
271	SSC-TFA-07	1.441	1322.8	(M+H)+
272	SSC-FA-03	1.839	1501.8	(M-H)-
273	SSC-TFA-07	1.471	1314.7	(M+H)+
274	SSC-AF-00	2.152	1399.5	(M-H)-
275	SSC-TFA-07	1.447	1278.7	(M+H)+
276	SSC-AF-00	2.097	1503.8	(M-H)-
277	SSC-FA-03	2.051	1413.8	(M-H)-
278	SSC-FA-03	1.804	1408.7	(M-H)-
279	SSC-A-FA-01	5.560	1434.0	(M-H)-
280	SSC-AF-00	2.143	1409.6	(M-H)-
281	SSC-TFA-07	1.575	1427.6	(M+H)+
282	SSC-FA-03	2.008	1456.0	(M-H)-
283	SSC-AF-00	2.156	1489.9	(M-H)-
284	SSC-AF-00	2.107	1395.9	(M-H)-
285	SSC-TFA-07	1.588	1330.6	(M+H)+
286	SSC-TFA-07	1.443	1286.9	(M+H)+
287	SSC-TFA-07	1.571	1401.7	(M+H)+
288	SSC-AF-00	2.097	1395.9	(M-H)-
289	SSC-FA-03	1.705	1372.0	(M-H)-
290	SSC-TFA-07	1.503	1302.6	(M+H)+
291	SSC-FA-03	1.815	1302.5	(M+H)+
292	SSC-FA-03	1.871	1329.6	(M-H)-
293	SSC-AF-00	2.171	1409.9	(M-H)-
294	SSC-AF-00	2.229	1428.0	(M-H)-
295	SSC-TFA-07	1.471	1443.7	(M+H)+
296	SSC-A-FA-02	7.016	1474.9	(M-H)-
297	SSC-AF-00	2.301	1493.7	(M-H)-
298	SSC-TFA-07	1.512	1385.8	(M+H)+
299	SSC-TFA-07	1.471	1320.8	(M+H)+
300	SSC-FA-03	1.885	1444.3	(M-H)-
301	SSC-A-FA-01	6.227	1450.6	(M+H)+
302	SSC-AF-00	2.095	1425.9	(M-H)-
303	SSC-A-FA-01	5.293	1419.8	(M-H)-
304	SSC-AF-00	2.164	1481.7	(M-H)-
305	SSC-TFA-07	1.571	1318.8	(M+H)+
306	SSC-TFA-07	1.373	1461.7	(M+H)+
307	SSC-AF-00	2.171	1397.5	(M-H)-
308	SSC-A-FA-01	5.464	1407.8	(M-H)-
309	SSC-FA-03	1.932	1427.5	(M-H)-
310	SSC-AF-00	2.147	1342.4	(M-H)-
311	SSC-TFA-07	1.592	1415.8	(M+H)+
312	SSC-TFA-07	1.445	1375.7	(M+H)+
313	SSC-FA-03	1.773	1381.6	(M-H)-
314	SSC-FA-03	1.821	1371.9	(M-H)-
315	SSC-TFA-07	1.449	1302.9	(M+H)+
316	SSC-AF-00	2.040	1359.9	(M-H)-
317	SSC-FA-03	1.871	1415.5	(M-H)-
318	SSC-TFA-07	1.479	1425.7	(M+H)+
319	SSC-A-FA-01	6.677	1468.6	(M+H)+
320	SSC-AF-00	2.177	1478.0	(M-H)-
321	SSC-TFA-07	1.633	1441.7	(M+H)+
322	SSC-TFA-07	1.444	1350.8	(M+H)+
323	SSC-TFA-07	1.339	1260.7	(M+H)+

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324	SSC-TFA-07	1.636	1407.7	(M+H)+
325	SSC-TFA-07	1.404	1359.7	(M+H)+
326	SSC-FA-03	1.867	1437.7	(M-H)-
327	SSC-AF-00	2.136	1409.9	(M-H)-
328	SSC-AF-00	2.139	1439.8	(M-H)-
329	SSC-TFA-07	1.587	1348.7	(M+H)+
330	SSC-FA-03	1.999	1481.4	(M-H)-
331	SSC-A-FA-01	4.375	1452.6	(M-H)-
332	SSC-TFA-07	1.465	1320.8	(M+H)+
333	SSC-AF-00	2.171	1300.5	(M-H)-
334	SSC-FA-03	1.825	1396.0	(M-H)-
335	SSC-FA-03	1.884	1481.9	(M-H)-
336	SSC-AF-00	2.215	1516.0	(M-H)-
337	SSC-TFA-07	1.457	1288.7	(M+H)+
338	SSC-AF-00	2.279	1545.1	(M-H)-
339	SSC-FA-03	1.848	1431.8	(M-H)-
340	SSC-FA-03	2.008	1486.0	(M-H)-
341	SSC-FA-03	1.747	1274.9	(M-H)-
342	SSC-A-AF-01	7.544	1407.8	(M-H)-
343	SSC-A-FA-01	5.341	1440.0	(M-H)-
344	SSC-A-FA-01	6.165	1464.6	(M+H)+
345	SSC-A-FA-02	7.005	1466.7	(M-H)-
346	SSC-FA-03	1.988	1435.8	(M-H)-
347	SSC-TFA-07	1.476	1316.6	(M+H)+
348	SSC-A-AF-01	7.915	1430.6	(M-H)-
349	SSC-AF-00	2.224	1424.0	(M-H)-
350	SSC-AF-00	2.160	1437.8	(M-H)-
351	SSC-TFA-07	1.415	1308.6	(M+H)+
352	SSC-FA-03	1.889	1427.7	(M-H)-
353	SSC-FA-03	1.852	1473.9	(M-H)-
354	SSC-FA-03	1.845	1322.9	(M-H)-
355	SSC-AF-00	2.135	1470.8	(M-H)-
356	SSC-AF-00	2.203	1425.8	(M-H)-
357	SSC-TFA-07	1.399	1323.6	(M+H)+
358	SSC-AF-00	2.173	1423.8	(M-H)-
359	SSC-A-FA-02	6.141	1358.7	(M-H)-
360	SSC-TFA-07	1.421	1359.6	(M+H)+
361	SSC-FA-03	1.651	1204.8	(M-H)-
362	SSC-A-FA-01	6.135	1452.6	(M+H)+
363	SSC-A-AF-01	7.219	1405.9	(M-H)-
364	SSC-TFA-07	1.505	1306.8	(M+H)+
365	SSC-A-AF-02	8.011	1464.7	(M+H)+
366	SSC-FA-03	1.927	1331.0	(M-H)-
367	SSC-FA-03	1.817	1453.5	(M-H)-
368	SSC-FA-03	1.896	1411.6	(M-H)-
369	SSC-FA-03	1.691	1258.5	(M-H)-
370	SSC-FA-03	1.915	1514.0	(M-H)-
371	SSC-A-FA-01	6.021	1420.6	(M+H)+
372	SSC-TFA-07	1.364	1391.9	(M+H)+
373	SSC-TFA-07	1.281	1348.8	(M+H)+
374	SSC-A-FA-02	6.708	1464.6	(M-H)-
375	SSC-A-AF-02	7.887	1374.6	(M+H)+
376	SSC-AF-00	2.172	1523.8	(M-H)-
377	SSC-A-FA-02	6.900	1468.7	(M-H)-

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378	SSC-FA-03	1.827	1395.9	(M-H)-
379	SSC-AF-00	2.132	1516.9	(M-H)-
380	SSC-AF-00	2.172	1371.8	(M-H)-
381	SSC-AF-00	2.092	1413.9	(M-H)-
382	SSC-AF-00	2.049	1341.6	(M-H)-
383	SSC-TFA-07	1.499	1312.7	(M+H)+
384	SSC-AF-00	2.155	1482.8	(M-H)-
385	SSC-FA-03	1.955	1489.8	(M-H)-
386	SSC-FA-03	1.863	1310.6	(M-H)-
387	SSC-FA-03	1.912	1481.9	(M-H)-
388	SSC-AF-00	2.147	1463.9	(M-H)-
389	SSC-FA-03	1.560	1520.9	(M-H)-
390	SSC-FA-03	1.808	1438.1	(M-H)-
391	SSC-AF-00	2.205	1438.0	(M-H)-
392	SSC-AF-00	2.283	1482.0	(M-H)-
393	SSC-AF-00	2.169	1411.9	(M-H)-
394	SSC-AF-00	2.156	1414.0	(M-H)-
395	SSC-TFA-07	1.523	1304.7	(M+H)+
396	SSC-FA-03	1.647	1230.4	(M-H)-
397	SSC-AF-00	2.140	1427.9	(M-H)-
398	SSC-AA-20	2.108	1349.8	(M-H)-
399	SSC-TFA-07	1.568	1439.7	(M+H)+
400	SSC-A-FA-01	5.539	1433.8	(M-H)-
401	SSC-A-AF-02	8.128	1462.6	(M+H)+
402	SSC-TFA-07	1.484	1288.7	(M+H)+
403	SSC-AF-00	2.113	1443.8	(M-H)-
404	SSC-FA-03	1.856	1335.0	(M-H)-
405	SSC-TFA-07	1.563	1318.7	(M+H)+
406	SSC-TFA-07	1.393	1322.8	(M+H)+
407	SSC-TFA-07	1.401	1318.8	(M+H)+
408	SSC-FA-03	1.739	1428.0	(M-H)-
409	SSC-AF-00	2.196	1424.1	(M-H)-
410	SSC-FA-03	1.805	1447.9	(M-H)-
411	SSC-AF-00	2.215	1437.9	(M-H)-
412	SSC-AF-00	2.128	1272.9	(M-H)-
413	SSC-FA-03	1.704	1218.8	(M-H)-
414	SSC-TFA-07	1.475	1270.8	(M+H)+
415	SSC-FA-03	1.919	1427.9	(M-H)-
416	SSC-AF-00	2.208	1340.4	(M-H)-
417	SSC-AF-00	2.160	1385.9	(M-H)-
418	SSC-TFA-07	1.449	1344.6	(M+H)+
419	SSC-FA-03	1.777	1475.8	(M-H)-
420	SSC-AF-00	2.168	1328.5	(M-H)-
421	SSC-TFA-07	1.497	1399.8	(M+H)+
422	SSC-AF-00	2.120	1541.8	(M-H)-
423	SSC-TFA-07	1.504	1457.7	(M+H)+
424	SSC-A-FA-02	6.431	1379.1	(M-H)-
425	SSC-FA-03	2.051	1489.8	(M-H)-
426	SSC-FA-03	1.853	1415.7	(M-H)-
427	SSC-FA-03	1.811	1387.9	(M-H)-
428	SSC-AF-00	2.296	1516.1	(M-H)-
429	SSC-AF-00	2.112	1260.5	(M+H)+
430	SSC-A-FA-02	6.889	1476.6	(M-H)-
431	SSC-AF-00	2.217	1383.7	(M-H)-

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432	SSC-A-AF-02	8.151	1422.8	(M-H)-
433	SSC-AF-00	2.205	1489.0	(M-H)-
434	SSC-FA-03	1.833	1425.9	(M-H)-
435	SSC-TFA-07	1.851	1514.0	(M+H)+
436	SSC-AF-00	2.161	1300.8	(M-H)-
437	SSC-FA-03	1.891	1411.9	(M-H)-
438	SSC-TFA-07	1.529	1401.8	(M+H)+
439	SSC-TFA-07	1.525	1304.7	(M+H)+
440	SSC-FA-03	1.947	1422.7	(M-H)-
441	SSC-FA-03	1.827	1478.5	(M-H)-
442	SSC-AF-00	2.140	1481.9	(M-H)-
443	SSC-FA-03	2.117	1442.0	(M+H)+
444	SSC-AF-00	2.141	1494.8	(M-H)-
445	SSC-FA-03	1.740	1445.4	(M+H)+
446	SSC-AF-00	2.113	1383.9	(M-H)-
447	SSC-AF-00	2.152	1397.6	(M+H)+
448	SSC-TFA-07	1.373	1349.7	(M+H)+
449	SSC-FA-03	2.101	1490.0	(M-H)-
450	SSC-AF-00	2.127	1413.5	(M-H)-
451	SSC-AF-00	2.171	1411.9	(M-H)-
452	SSC-FA-03	1.911	1423.9	(M-H)-
453	SSC-AF-00	2.163	1411.9	(M-H)-
454	SSC-FA-03	1.801	1288.7	(M-H)-
455	SSC-TFA-07	1.540	1328.7	(M+H)+
456	SSC-TFA-07	1.485	1316.7	(M+H)+
457	SSC-TFA-07	1.401	1415.6	(M+H)+
458	SSC-AF-00	2.079	1350.0	(M-H)-
459	SSC-FA-03	1.852	1497.8	(M-H)-
460	SSC-FA-03	1.583	1476.9	(M-H)-
461	SSC-AF-00	2.160	1452.0	(M-H)-
462	SSC-A-AF-02	7.828	1428.6	(M+H)+
463	SSC-FA-03	1.939	1509.0	(M-H)-
464	SSC-AF-00	2.159	1340.7	(M-H)-
465	SSC-TFA-07	1.485	1314.6	(M+H)+
466	SSC-A-FA-02	6.693	1478.6	(M+H)+
467	SSC-TFA-07	1.298	1357.6	(M+H)+
468	SSC-TFA-07	1.452	1373.7	(M+H)+
469	SSC-FA-03	1.913	1467.6	(M-H)-
470	SSC-AF-00	2.191	1430.0	(M-H)-
471	SSC-TFA-07	1.477	1354.7	(M+H)+
472	SSC-FA-03	2.063	1488.1	(M-H)-
473	SSC-AA-20	2.161	1419.7	(M-H)-
474	SSC-TFA-07	1.496	1314.7	(M+H)+
475	SSC-A-FA-02	6.823	1416.7	(M+H)+
476	SSC-TFA-07	1.559	1427.8	(M+H)+
477	SSC-FA-03	1.681	1532.8	(M+H)+
478	SSC-FA-03	2.093	1468.1	(M-H)-
479	SSC-FA-03	2.249	1601.0	(M+H)+
480	SSC-AF-00	2.193	1517.1	(M-H)-
481	SSC-FA-03	1.877	1346.9	(M-H)-
482	SSC-FA-03	1.833	1280.9	(M-H)-
483	SSC-AF-00	2.197	1521.8	(M-H)-
484	SSC-AF-00	2.145	1427.8	(M-H)-
485	SSC-FA-03	2.045	1470.1	(M-H)-

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486	SSC-A-FA-01	6.473	1478.7	(M+H)+
487	SSC-AF-00	2.092	1373.9	(M-H)-
488	SSC-TFA-07	1.521	1316.8	(M+H)+
489	SSC-AF-00	2.043	1295.5	(M+H)+
490	SSC-TFA-07	1.429	1300.6	(M+H)+
491	SSC-FA-03	1.884	1382.1	(M-H)-
492	SSC-AF-00	2.172	1439.9	(M-H)-
493	SSC-FA-03	1.889	1495.0	(M-H)-
494	SSC-A-FA-02	6.515	1376.6	(M-H)-
495	SSC-FA-03	2.001	1425.8	(M-H)-
496	SSC-AF-00	2.163	1455.9	(M-H)-
497	SSC-AF-00	2.144	1427.9	(M-H)-
498	SSC-FA-03	2.076	1571.7	(M-H)-
499	SSC-TFA-07	1.321	1343.7	(M+H)+
500	SSC-AF-00	2.239	1510.8	(M-H)-
501	SSC-AF-00	2.197	1328.5	(M-H)-
502	SSC-TFA-07	1.307	1451.8	(M+H)+
503	SSC-A-FA-02	6.264	1418.6	(M+H)+
504	SSC-TFA-07	1.521	1304.8	(M+H)+
505	SSC-A-AF-02	8.020	1452.6	(M-H)-
506	SSC-A-FA-01	5.477	1447.7	(M+H)+
507	SSC-AF-00	2.048	1345.5	(M-H)-
508	SSC-TFA-07	1.421	1373.6	(M+H)+
509	SSC-A-FA-01	5.879	1501.7	(M-H)-
510	SSC-A-FA-02	6.465	1373.1	(M-H)-
511	SSC-TFA-07	1.356	1248.7	(M+H)+
512	SSC-TFA-07	1.531	1362.6	(M+H)+
513	SSC-AA-20	2.085	1488.7	(M+H)+
514	SSC-FA-03	2.116	1487.9	(M-H)-
515	SSC-FA-03	1.853	1423.9	(M-H)-
516	SSC-FA-03	2.004	1286.9	(M-H)-
517	SSC-TFA-07	1.279	1454.7	(M+H)+
518	SSC-AF-00	2.212	1496.0	(M-H)-
519	SSC-FA-03	1.549	1422.8	(M-H)-
520	SSC-TFA-07	1.459	1276.7	(M+H)+
521	SSC-TFA-07	1.375	1284.7	(M+H)+
522	SSC-TFA-07	1.420	1359.7	(M+H)+
523	SSC-FA-03	2.113	1491.9	(M-H)-
524	SSC-FA-03	1.993	1437.9	(M-H)-
525	SSC-A-AF-02	8.091	1406.6	(M-H)-
526	SSC-AF-00	2.159	1411.8	(M-H)-
527	SSC-FA-03	2.204	1515.9	(M-H)-
528	SSC-FA-03	2.001	1366.9	(M-H)-
529	SSC-AF-00	2.140	1318.5	(M-H)-
530	SSC-TFA-07	1.513	1359.7	(M+H)+
531	SSC-AF-00	2.164	1362.9	(M-H)-
532	SSC-AF-00	2.167	1397.9	(M-H)-
533	SSC-TFA-07	1.463	1385.6	(M+H)+
534	SSC-FA-03	1.917	1411.7	(M-H)-
535	SSC-AF-00	2.195	1441.9	(M-H)-
536	SSC-TFA-07	1.500	1411.8	(M+H)+
537	SSC-AF-00	2.209	1329.0	(M-H)-
538	SSC-AF-00	2.113	1324.9	(M-H)-
539	SSC-FA-03	1.895	1314.5	(M-H)-

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540	SSC-TFA-07	1.427	1256.7	(M+H)+
541	SSC-A-FA-02	6.353	1434.7	(M-H)-
542	SSC-TFA-07	1.555	1316.7	(M+H)+
543	SSC-FA-03	2.103	1453.9	(M-H)-
544	SSC-TFA-07	1.445	1415.7	(M+H)+
545	SSC-FA-03	1.812	1529.9	(M-H)-
546	SSC-TFA-07	1.501	1336.9	(M+H)+
547	SSC-A-FA-02	6.729	1448.7	(M-H)-
548	SSC-AF-00	2.153	1399.6	(M-H)-
549	SSC-AF-00	2.147	1326.7	(M-H)-
550	SSC-TFA-07	1.451	1288.7	(M+H)+
551	SSC-FA-03	1.984	1422.0	(M-H)-
552	SSC-AF-00	2.256	1466.0	(M-H)-
553	SSC-AF-00	2.183	1409.9	(M-H)-
554	SSC-FA-03	1.869	1381.9	(M-H)-
555	SSC-AF-00	2.052	1356.0	(M-H)-
556	SSC-AF-00	2.143	1473.5	(M-H)-
557	SSC-FA-03	1.496	1432.8	(M-H)-
558	SSC-TFA-07	1.637	1441.8	(M+H)+
559	SSC-FA-03	1.859	1407.9	(M-H)-
560	SSC-TFA-07	1.336	1258.7	(M+H)+
561	SSC-TFA-07	1.504	1399.7	(M+H)+
562	SSC-FA-03	2.024	1437.9	(M-H)-
563	SSC-AF-00	2.192	1435.6	(M-H)-
564	SSC-TFA-07	1.365	1309.6	(M+H)+
565	SSC-TFA-07	1.412	1300.7	(M+H)+
566	SSC-AF-00	2.193	1396.7	(M-H)-
567	SSC-FA-03	1.800	1402.0	(M-H)-
568	SSC-FA-03	1.837	1385.9	(M-H)-
569	SSC-TFA-07	1.509	1316.6	(M+H)+
570	SSC-TFA-07	1.520	1328.5	(M+H)+
571	SSC-A-FA-01	5.515	1425.7	(M+H)+
572	SSC-AF-00	2.261	1465.6	(M-H)-
573	SSC-A-FA-02	6.337	1396.6	(M+H)+
574	SSC-A-FA-02	6.388	1452.6	(M+H)+
575	SSC-FA-03	1.847	1385.9	(M-H)-
576	SSC-AF-00	2.116	1220.5	(M-H)-
577	SSC-TFA-07	1.644	1455.8	(M+H)+
578	SSC-TFA-07	1.540	1338.8	(M+H)+
579	SSC-A-FA-02	6.495	1430.6	(M+H)+
580	SSC-TFA-07	1.491	1314.7	(M+H)+
581	SSC-TFA-07	1.439	1274.6	(M+H)+
582	SSC-TFA-07	1.307	1417.8	(M+H)+
583	SSC-TFA-07	1.664	1368.8	(M+H)+
584	SSC-AF-00	2.133	1324.5	(M-H)-
585	SSC-AF-00	2.179	1441.9	(M-H)-
586	SSC-TFA-07	1.572	1318.7	(M+H)+
587	SSC-AF-00	2.147	1416.9	(M-H)-
588	SSC-TFA-07	1.496	1288.7	(M+H)+
589	SSC-FA-03	1.799	1499.9	(M-H)-
590	SSC-AF-00	2.229	1499.0	(M-H)-
591	SSC-FA-03	1.967	1399.9	(M-H)-
592	SSC-FA-03	2.153	1534.9	(M-H)-
593	SSC-TFA-07	1.581	1330.7	(M+H)+

[5121]

594	SSC-A-FA-02	6.632	1461.0	(M-H)-
595	SSC-AF-00	2.205	1342.7	(M+H)+
596	SSC-AF-00	2.173	1469.9	(M-H)-
597	SSC-FA-03	1.824	1328.5	(M-H)-
598	SSC-AF-00	2.181	1336.9	(M-H)-
599	SSC-TFA-07	1.440	1397.8	(M+H)+
600	SSC-TFA-07	1.587	1415.8	(M+H)+
601	SSC-AF-00	2.179	1272.5	(M-H)-
602	SSC-AF-00	2.152	1302.7	(M+H)+
603	SSC-FA-03	1.940	1427.9	(M-H)-
604	SSC-FA-03	1.655	1427.7	(M-H)-
605	SSC-FA-03	1.852	1360.9	(M-H)-
606	SSC-A-AF-01	7.861	1470.7	(M+H)+
607	SSC-FA-03	1.825	1373.6	(M-H)-
608	SSC-TFA-07	1.503	1304.7	(M+H)+
609	SSC-AA-20	2.107	1389.5	(M-H)-
610	SSC-TFA-07	1.485	1411.7	(M+H)+
611	SSC-A-FA-02	6.413	1428.6	(M+H)+
612	SSC-TFA-07	1.217	1301.6	(M+H)+
613	SSC-TFA-07	1.297	1324.0	(M+H)+
614	SSC-AF-00	2.267	1547.0	(M-H)-
615	SSC-TFA-07	1.597	1342.8	(M+H)+
616	SSC-FA-03	1.971	1489.8	(M-H)-
617	SSC-AF-00	2.172	1496.0	(M-H)-
618	SSC-FA-03	1.793	1313.6	(M-H)-
619	SSC-FA-03	1.884	1441.9	(M-H)-
620	SSC-TFA-07	1.511	1389.7	(M+H)+
621	SSC-AF-00	2.121	1246.8	(M-H)-
622	SSC-A-AF-01	7.701	1472.0	(M+H)+
623	SSC-FA-03	1.833	1387.9	(M-H)-
624	SSC-AF-00	2.131	1401.7	(M-H)-
625	SSC-AF-00	2.081	1315.6	(M-H)-
626	SSC-A-FA-02	6.673	1396.6	(M+H)+
627	SSC-AF-00	2.200	1425.9	(M-H)-
628	SSC-A-FA-02	6.727	1393.1	(M-H)-
629	SSC-TFA-07	1.608	1344.7	(M+H)+
630	SSC-AF-00	2.163	1501.8	(M-H)-
631	SSC-AF-00	2.148	1449.9	(M-H)-
632	SSC-AA-20	2.149	1332.7	(M+H)+
633	SSC-FA-03	1.873	1310.1	(M-H)-
634	SSC-AA-20	2.128	1475.6	(M-H)-
635	SSC-TFA-07	1.304	1423.7	(M+H)+
636	SSC-FA-03	1.824	1413.9	(M-H)-
637	SSC-TFA-07	1.479	1463.5	(M+H)+
638	SSC-FA-03	1.851	1486.0	(M-H)-
639	SSC-AF-00	2.179	1441.8	(M-H)-
640	SSC-A-FA-01	6.267	1462.6	(M+H)+
641	SSC-TFA-07	1.413	1264.7	(M+H)+
642	SSC-TFA-07	1.615	1453.7	(M+H)+
643	SSC-AF-00	2.321	1495.6	(M-H)-
644	SSC-TFA-07	1.489	1304.7	(M+H)+
645	SSC-TFA-07	1.440	1326.7	(M+H)+
646	SSC-TFA-07	1.329	1355.9	(M+H)+
647	SSC-FA-03	1.912	1451.9	(M-H)-

[5122]

648	SSC-FA-03	1.832	1334.5	(M-H)-
649	SSC-TFA-07	1.460	1276.8	(M+H)+
650	SSC-AF-00	2.201	1441.9	(M-H)-
651	SSC-FA-03	1.701	1244.5	(M-H)-
652	SSC-A-FA-01	6.589	1476.6	(M+H)+
653	SSC-AF-00	2.151	1465.9	(M+H)+
654	SSC-TFA-07	1.339	1292.7	(M+H)+
655	SSC-A-FA-01	3.989	1442.7	(M+H)+
656	SSC-AF-00	2.253	1531.1	(M-H)-
657	SSC-TFA-07	1.404	1375.6	(M+H)+
658	SSC-TFA-07	1.424	1288.7	(M+H)+
659	SSC-AF-00	2.077	1295.8	(M-H)-
660	SSC-A-FA-01	4.956	1383.6	(M+H)+
661	SSC-AF-00	2.248	1470.0	(M-H)-
662	SSC-AF-00	2.225	1455.9	(M-H)-
663	SSC-TFA-07	1.483	1302.8	(M+H)+
664	SSC-TFA-07	1.243	1230.8	(M+H)+
665	SSC-AF-00	2.147	1288.7	(M-H)-
666	SSC-FA-03	1.857	1300.6	(M+H)+
667	SSC-FA-03	1.996	1439.8	(M-H)-
668	SSC-A-FA-01	6.295	1442.6	(M+H)+
669	SSC-TFA-07	1.495	1338.6	(M+H)+
670	SSC-TFA-07	1.437	1369.7	(M+H)+
671	SSC-FA-03	1.800	1308.5	(M+H)+
672	SSC-FA-03	1.963	1438.0	(M-H)-
673	SSC-A-AF-02	8.123	1450.7	(M+H)+
674	SSC-AF-00	2.135	1396.1	(M-H)-
675	SSC-TFA-07	1.479	1415.8	(M+H)+
676	SSC-TFA-07	1.665	1483.7	(M+H)+
677	SSC-FA-03	1.864	1398.0	(M-H)-
678	SSC-FA-03	1.865	1431.6	(M-H)-
679	SSC-A-FA-01	5.848	1494.7	(M+H)+
680	SSC-AF-00	2.124	1453.8	(M-H)-
681	SSC-FA-03	1.824	1422.0	(M-H)-
682	SSC-AF-00	2.171	1504.6	(M-H)-
683	SSC-FA-03	1.840	1501.9	(M-H)-
684	SSC-AF-00	2.069	1385.5	(M-H)-
685	SSC-FA-03	1.668	1299.6	(M-H)-
686	SSC-TFA-07	1.584	1318.8	(M+H)+
687	SSC-TFA-07	1.479	1338.8	(M+H)+
688	SSC-FA-03	2.045	1471.9	(M-H)-
689	SSC-FA-03	2.015	1437.8	(M-H)-
690	SSC-FA-03	1.925	1415.9	(M-H)-
691	SSC-FA-03	1.989	1415.8	(M-H)-
692	SSC-FA-03	2.217	1485.9	(M-H)-
693	SSC-AF-00	2.083	1419.5	(M+H)+
694	SSC-FA-03	1.933	1304.6	(M+H)+
695	SSC-A-FA-02	6.256	1422.7	(M-H)-
696	SSC-AF-00	2.247	1517.8	(M-H)-
697	SSC-TFA-07	1.360	1248.6	(M+H)+
698	SSC-A-FA-02	6.627	1461.0	(M-H)-
699	SSC-AF-00	2.255	1467.6	(M-H)-
700	SSC-FA-03	1.904	1423.6	(M-H)-
701	SSC-AF-00	2.187	1465.8	(M-H)-

[5123]

702	SSC-FA-03	1.851	1401.7	(M-H)-
703	SSC-AF-00	2.180	1514.0	(M+H)+
704	SSC-A-FA-02	6.629	1400.7	(M-H)-
705	SSC-TFA-07	1.548	1306.7	(M+H)+
706	SSC-FA-03	1.911	1489.6	(M-H)-
707	SSC-TFA-07	1.483	1302.7	(M+H)+
708	SSC-TFA-07	1.520	1304.7	(M+H)+
709	SSC-TFA-07	1.531	1439.7	(M+H)+
710	SSC-TFA-07	1.411	1420.7	(M+H)+
711	SSC-AF-00	2.189	1466.0	(M-H)-
712	SSC-TFA-07	1.493	1387.7	(M+H)+
713	SSC-A-FA-02	6.597	1408.6	(M+H)+
714	SSC-TFA-07	1.375	1262.6	(M+H)+
715	SSC-AF-00	2.073	1355.6	(M-H)-
716	SSC-FA-03	1.964	1421.8	(M-H)-
717	SSC-AF-00	2.137	1404.9	(M-H)-
718	SSC-FA-03	1.995	1455.5	(M-H)-
719	SSC-A-AF-01	8.037	1558.9	(M-H)-
720	SSC-FA-03	1.865	1340.7	(M-H)-
721	SSC-FA-03	1.785	1451.9	(M-H)-
722	SSC-FA-03	2.163	1454.0	(M-H)-
723	SSC-TFA-07	1.544	1330.7	(M+H)+
724	SSC-A-FA-02	6.811	1424.7	(M+H)+
725	SSC-AF-00	2.211	1500.0	(M-H)-
726	SSC-A-FA-01	5.923	1437.9	(M-H)-
727	SSC-AF-00	2.275	1557.1	(M-H)-
728	SSC-FA-03	2.157	1453.9	(M-H)-
729	SSC-AF-00	2.211	1437.8	(M-H)-
730	SSC-FA-03	2.199	1469.9	(M-H)-
731	SSC-A-AF-02	8.049	1452.7	(M+H)+
732	SSC-FA-03	1.920	1455.7	(M-H)-
733	SSC-TFA-07	1.579	1439.6	(M+H)+
734	SSC-AF-00	2.152	1464.0	(M-H)-
735	SSC-AF-00	2.059	1427.7	(M-H)-
736	SSC-FA-03	1.765	1347.5	(M+H)+
737	SSC-AF-00	2.281	1442.0	(M-H)-
738	SSC-A-FA-02	6.660	1368.7	(M+H)+
739	SSC-TFA-07	1.388	1387.8	(M+H)+
740	SSC-TFA-07	1.484	1322.6	(M+H)+
741	SSC-AF-00	2.191	1414.0	(M-H)-
742	SSC-TFA-07	1.441	1334.7	(M+H)+
743	SSC-A-FA-02	6.651	1461.1	(M-H)-
744	SSC-FA-03	1.813	1416.0	(M-H)-
745	SSC-AF-00	2.161	1409.5	(M-H)-
746	SSC-AF-00	2.205	1286.9	(M-H)-
747	SSC-TFA-07	1.577	1330.6	(M+H)+
748	SSC-FA-03	1.943	1427.7	(M-H)-
749	SSC-FA-03	1.884	1360.5	(M-H)-
750	SSC-A-FA-02	6.584	1428.5	(M+H)+
751	SSC-TFA-07	1.404	1306.7	(M+H)+
752	SSC-TFA-07	1.501	1419.6	(M+H)+
753	SSC-FA-03	1.968	1348.5	(M-H)-
754	SSC-AF-00	2.191	1511.9	(M-H)-
755	SSC-FA-03	1.937	1453.8	(M-H)-

[5124]

756	SSC-AF-00	2.179	1427.9	(M-H)-
757	SSC-FA-03	1.751	1517.0	(M-H)-
758	SSC-TFA-07	1.361	1357.6	(M+H)+
759	SSC-AF-00	2.140	1442.0	(M-H)-
760	SSC-AF-00	2.179	1399.9	(M-H)-
761	SSC-A-FA-01	6.021	1520.7	(M+H)+
762	SSC-TFA-07	1.592	1429.8	(M+H)+
764	SSC-TFA-07	1.415	1322.9	(M+H)+
765	SSC-AF-00	2.147	1441.6	(M-H)-
766	SSC-FA-03	1.865	1421.6	(M-H)-
767	SSC-TFA-07	1.375	1309.7	(M+H)+
768	SSC-A-AF-01	7.712	1423.8	(M-H)-
769	SSC-TFA-07	1.409	1397.7	(M+H)+
770	SSC-FA-03	1.877	1548.9	(M+H)+
771	SSC-TFA-07	1.473	1314.7	(M+H)+
772	SSC-TFA-07	1.515	1346.8	(M+H)+
773	SSC-AF-00	2.159	1260.9	(M-H)-
774	SSC-FA-03	1.872	1467.7	(M-H)-
775	SSC-A-FA-02	6.701	1420.7	(M-H)-
776	SSC-FA-03	1.868	1314.9	(M-H)-
777	SSC-A-FA-01	6.740	1491.9	(M+H)+
778	SSC-FA-03	2.020	1425.8	(M-H)-
779	SSC-TFA-07	1.401	1421.8	(M+H)+
780	SSC-A-FA-01	5.719	1638.9	(M+H)+
781	SSC-FA-03	1.888	1501.6	(M-H)-
782	SSC-TFA-07	1.435	1352.6	(M+H)+
783	SSC-FA-03	2.005	1505.6	(M-H)-
784	SSC-FA-03	1.775	1395.8	(M-H)-
785	SSC-A-FA-02	6.371	1464.6	(M+H)+
786	SSC-AF-00	2.220	1531.0	(M-H)-
787	SSC-TFA-07	1.513	1413.7	(M+H)+
788	SSC-TFA-07	1.368	1260.7	(M+H)+
789	SSC-FA-03	2.068	1515.9	(M-H)-
790	SSC-FA-03	1.823	1426.0	(M-H)-
791	SSC-FA-03	1.924	1537.4	(M+H)+
792	SSC-AF-00	2.161	1429.9	(M-H)-
793	SSC-A-FA-01	5.032	1456.7	(M+H)+
794	SSC-FA-03	2.153	1483.9	(M-H)-
795	SSC-FA-03	1.815	1324.5	(M-H)-
796	SSC-FA-03	2.139	1520.1	(M-H)-
797	SSC-TFA-07	1.459	1320.7	(M+H)+
798	SSC-FA-03	2.189	1370.6	(M-H)-
799	SSC-AF-00	2.109	1397.8	(M-H)-
800	SSC-TFA-07	1.456	1320.8	(M+H)+
801	SSC-TFA-07	1.643	1346.7	(M+H)+
802	SSC-TFA-07	1.379	1266.6	(M+H)+
803	SSC-AF-00	2.211	1468.0	(M-H)-
804	SSC-TFA-07	1.395	1371.7	(M+H)+
805	SSC-FA-03	1.817	1442.8	(M-H)-
806	SSC-A-FA-01	5.865	1439.9	(M+H)+
807	SSC-AF-00	2.167	1412.0	(M-H)-
808	SSC-TFA-07	1.368	1391.8	(M+H)+
809	SSC-AF-00	2.281	1483.8	(M-H)-
810	SSC-AF-00	2.160	1385.5	(M-H)-

[5125]

811	SSC-TFA-07	1.460	1288.7	(M+H)+
812	SSC-AF-00	2.272	1514.1	(M-H)-
813	SSC-FA-03	2.088	1571.7	(M-H)-
814	SSC-AF-00	2.091	1459.7	(M-H)-
815	SSC-TFA-07	1.455	1288.7	(M+H)+
816	SSC-A-FA-02	6.792	1476.6	(M+H)+
817	SSC-A-FA-01	4.897	1524.7	(M+H)+
818	SSC-AF-00	2.135	1528.9	(M-H)-
819	SSC-AF-00	2.233	1587.7	(M-H)-
820	SSC-AF-00	2.207	1441.8	(M-H)-
821	SSC-FA-03	1.945	1439.9	(M-H)-
822	SSC-AF-00	2.152	1445.9	(M-H)-
823	SSC-FA-03	1.961	1423.8	(M-H)-
824	SSC-TFA-07	1.455	1290.6	(M+H)+
825	SSC-FA-03	1.939	1363.6	(M-H)-
826	SSC-AF-00	2.136	1494.9	(M-H)-
827	SSC-AF-00	2.049	1401.6	(M-H)-
828	SSC-A-AF-01	7.365	1355.6	(M+H)+
829	SSC-FA-03	1.747	1367.9	(M-H)-
830	SSC-AF-00	2.133	1298.6	(M-H)-
831	SSC-FA-03	1.875	1286.5	(M-H)-
832	SSC-TFA-07	1.451	1278.7	(M+H)+
833	SSC-A-FA-02	6.701	1440.7	(M-H)-
834	SSC-FA-03	2.081	1312.9	(M-H)-
835	SSC-FA-03	1.935	1439.8	(M-H)-
836	SSC-FA-03	1.787	1413.7	(M-H)-
837	SSC-TFA-07	1.477	1290.6	(M+H)+
838	SSC-FA-03	2.008	1505.6	(M-H)-
839	SSC-AF-00	2.165	1274.8	(M+H)+
840	SSC-A-FA-01	5.016	1394.0	(M-H)-
841	SSC-TFA-07	1.419	1317.7	(M+H)+
842	SSC-TFA-07	1.396	1250.7	(M+H)+
843	SSC-TFA-07	1.555	1328.9	(M+H)+
844	SSC-AF-00	2.105	1272.7	(M-H)-
845	SSC-TFA-07	1.497	1316.7	(M+H)+
847	SSC-TFA-07	1.519	1312.9	(M+H)+
848	SSC-FA-03	2.136	1456.0	(M-H)-
849	SSC-FA-03	2.104	1466.1	(M-H)-
850	SSC-FA-03	1.809	1401.9	(M-H)-
851	SSC-TFA-07	1.501	1332.6	(M+H)+
852	SSC-TFA-07	1.645	1374.7	(M+H)+
853	SSC-AF-00	2.077	1415.7	(M-H)-
854	SSC-FA-03	2.063	1475.8	(M-H)-
855	SSC-FA-03	2.113	1515.6	(M+H)+
856	SSC-FA-03	1.736	1438.5	(M-H)-
857	SSC-TFA-07	1.469	1302.7	(M+H)+
858	SSC-TFA-07	1.527	1376.8	(M+H)+
859	SSC-AF-00	2.165	1326.6	(M-H)-
860	SSC-AF-00	2.033	1299.6	(M-H)-
861	SSC-AF-00	2.169	1451.7	(M-H)-
862	SSC-FA-03	1.715	1373.5	(M-H)-
863	SSC-A-FA-01	6.205	1444.7	(M+H)+
864	SSC-TFA-07	1.560	1348.7	(M+H)+

[5126]

865	SSC-AA-20	2.064	1292.7	(M+H)+
866	SSC-A-AF-01	7.561	1421.8	(M-H)-
867	SSC-TFA-07	1.401	1420.7	(M+H)+
868	SSC-FA-03	1.880	1410.1	(M-H)-
869	SSC-A-FA-02	6.093	1348.6	(M+H)+
870	SSC-TFA-07	1.439	1342.8	(M+H)+
871	SSC-AF-00	2.053	1410.0	(M-H)-
872	SSC-FA-03	2.127	1472.0	(M-H)-
873	SSC-AF-00	2.195	1340.9	(M-H)-
874	SSC-TFA-07	1.431	1302.7	(M+H)+
875	SSC-TFA-07	1.425	1415.7	(M+H)+
876	SSC-FA-03	2.055	1517.7	(M-H)-
877	SSC-AF-00	2.195	1425.9	(M-H)-
878	SSC-TFA-07	1.443	1419.7	(M+H)+
879	SSC-TFA-07	1.400	1274.7	(M+H)+
880	SSC-FA-03	1.909	1413.8	(M-H)-
881	SSC-FA-03	1.924	1493.8	(M-H)-
882	SSC-FA-03	1.817	1487.9	(M-H)-
883	SSC-AF-00	2.151	1292.8	(M+H)+
884	SSC-AA-20	2.132	1449.6	(M+H)+
885	SSC-AF-00	2.172	1427.8	(M-H)-
886	SSC-TFA-07	1.627	1334.7	(M+H)+
887	SSC-AF-00	2.223	1535.0	(M-H)-
888	SSC-TFA-07	1.389	1323.7	(M+H)+
889	SSC-TFA-07	1.360	1458.8	(M+H)+
890	SSC-AF-00	2.153	1439.9	(M-H)-
891	SSC-A-FA-02	6.420	1338.6	(M-H)-
892	SSC-TFA-07	1.567	1320.8	(M+H)+
893	SSC-TFA-07	1.468	1333.8	(M+H)+
894	SSC-AF-00	2.211	1495.7	(M-H)-
895	SSC-AF-00	2.187	1445.8	(M-H)-
896	SSC-A-AF-01	7.573	1422.0	(M-H)-
897	SSC-AF-00	2.173	1346.7	(M+H)+
898	SSC-A-FA-02	6.677	1418.7	(M-H)-
899	SSC-A-FA-01	6.756	1439.9	(M-H)-
900	SSC-A-AF-01	7.679	1456.7	(M+H)+
901	SSC-TFA-07	1.540	1316.6	(M+H)+
902	SSC-TFA-07	1.388	1272.7	(M+H)+
903	SSC-FA-03	1.729	1315.6	(M-H)-
904	SSC-TFA-07	1.551	1318.7	(M+H)+
905	SSC-TFA-07	1.512	1304.8	(M+H)+
906	SSC-FA-03	1.861	1427.7	(M-H)-
907	SSC-A-AF-01	7.649	1408.6	(M+H)+
908	SSC-FA-03	2.101	1489.8	(M-H)-
909	SSC-AF-00	2.109	1298.6	(M-H)-
910	SSC-AF-00	2.200	1532.7	(M-H)-
911	SSC-TFA-07	1.551	1413.7	(M+H)+
912	SSC-FA-03	2.017	1487.5	(M+H)+
913	SSC-TFA-07	1.427	1334.6	(M+H)+
914	SSC-FA-03	1.588	1476.8	(M-H)-
915	SSC-AF-00	2.051	1369.7	(M-H)-
916	SSC-TFA-07	1.417	1345.8	(M+H)+
917	SSC-AF-00	2.200	1399.8	(M-H)-
918	SSC-AF-00	2.075	1394.1	(M-H)-

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919	SSC-AF-00	2.048	1281.8	(M-H)-
920	SSC-AF-00	2.193	1494.1	(M-H)-
921	SSC-A-FA-01	5.544	1435.8	(M-H)-
922	SSC-AF-00	2.156	1324.7	(M-H)-
923	SSC-TFA-07	1.429	1300.7	(M+H)+
924	SSC-TFA-07	1.536	1316.6	(M+H)+
925	SSC-TFA-07	1.409	1395.7	(M+H)+
926	SSC-FA-03	1.856	1453.9	(M-H)-
927	SSC-TFA-07	1.493	1336.9	(M+H)+
928	SSC-A-FA-02	6.937	1421.0	(M-H)-
929	SSC-FA-03	1.856	1387.8	(M-H)-
930	SSC-AF-00	2.061	1262.5	(M+H)+
931	SSC-FA-03	1.951	1473.9	(M-H)-
932	SSC-A-FA-02	6.813	1464.7	(M+H)+
933	SSC-FA-03	1.905	1337.0	(M-H)-
934	SSC-FA-03	2.075	1537.7	(M-H)-
935	SSC-TFA-07	1.415	1420.6	(M+H)+
936	SSC-AF-00	2.148	1397.5	(M-H)-
937	SSC-TFA-07	1.540	1316.6	(M+H)+
938	SSC-FA-03	1.701	1446.0	(M-H)-
939	SSC-FA-03	1.949	1387.8	(M-H)-
940	SSC-AF-00	2.347	1514.1	(M-H)-
941	SSC-FA-03	1.963	1441.8	(M-H)-
942	SSC-FA-03	1.633	1474.8	(M-H)-
943	SSC-FA-03	1.785	1469.5	(M-H)-
944	SSC-TFA-07	1.467	1292.7	(M+H)+
945	SSC-AF-00	2.167	1439.7	(M-H)-
946	SSC-AF-00	2.124	1407.9	(M-H)-
947	SSC-A-FA-02	6.931	1414.7	(M+H)+
948	SSC-AF-00	2.152	1397.9	(M-H)-
949	SSC-A-FA-02	6.668	1454.5	(M+H)+
950	SSC-FA-03	2.104	1552.9	(M-H)-
951	SSC-A-FA-02	6.720	1408.7	(M-H)-
952	SSC-TFA-07	1.472	1300.7	(M+H)+
953	SSC-AF-00	2.175	1359.6	(M+H)+
954	SSC-FA-03	1.868	1329.6	(M-H)-
955	SSC-TFA-07	1.465	1419.7	(M+H)+
956	SSC-AF-00	2.105	1306.7	(M+H)+
957	SSC-FA-03	1.780	1381.9	(M-H)-
958	SSC-AF-00	2.161	1471.8	(M-H)-
959	SSC-FA-03	2.021	1438.0	(M-H)-
960	SSC-AF-00	2.283	1529.7	(M+H)+
961	SSC-AF-00	2.143	1484.6	(M-H)-
962	SSC-A-FA-02	6.436	1352.6	(M+H)+
963	SSC-FA-03	1.999	1455.7	(M-H)-
964	SSC-AF-00	2.195	1409.5	(M-H)-
965	SSC-A-FA-01	5.088	1422.0	(M-H)-
966	SSC-TFA-07	1.544	1328.7	(M+H)+
967	SSC-TFA-07	1.457	1278.8	(M+H)+
968	SSC-TFA-07	1.565	1427.7	(M+H)+
969	SSC-TFA-07	1.528	1389.8	(M+H)+
970	SSC-TFA-07	1.636	1332.7	(M+H)+
971	SSC-FA-03	1.881	1470.4	(M-H)-
972	SSC-AF-00	2.183	1362.9	(M-H)-

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973	SSC-FA-03	1.899	1479.6	(M-H)-
974	SSC-FA-03	1.731	1429.8	(M-H)-
975	SSC-TFA-07	1.372	1309.6	(M+H)+
976	SSC-FA-03	1.711	1295.7	(M-H)-
977	SSC-FA-03	1.923	1423.6	(M-H)-
978	SSC-TFA-07	1.419	1294.8	(M+H)+
979	SSC-AF-00	2.108	1274.4	(M-H)-
980	SSC-TFA-07	1.449	1385.7	(M+H)+
981	SSC-FA-03	1.812	1529.7	(M-H)-
982	SSC-FA-03	1.784	1466.7	(M-H)-
983	SSC-FA-03	2.175	1480.0	(M-H)-
984	SSC-A-FA-01	6.952	1588.8	(M+H)+
985	SSC-TFA-07	1.441	1276.7	(M+H)+
986	SSC-AF-00	2.223	1440.0	(M-H)-
987	SSC-FA-03	1.745	1398.1	(M-H)-
988	SSC-TFA-07	1.581	1453.8	(M+H)+
989	SSC-TFA-07	1.329	1391.8	(M+H)+
990	SSC-FA-03	1.817	1326.4	(M+H)+
991	SSC-TFA-07	1.584	1344.7	(M+H)+
992	SSC-TFA-07	1.705	1376.7	(M+H)+
993	SSC-AF-00	2.117	1359.9	(M-H)-
994	SSC-TFA-07	1.476	1368.6	(M+H)+
995	SSC-AF-00	2.184	1425.6	(M-H)-
996	SSC-TFA-07	1.520	1340.7	(M+H)+
997	SSC-FA-03	2.023	1521.5	(M-H)-
998	SSC-TFA-07	1.653	1556.9	(M+H)+
999	SSC-FA-03	1.841	1383.6	(M-H)-
1000	SSC-AF-00	2.157	1489.8	(M-H)-
1001	SSC-FA-03	1.791	1475.9	(M-H)-
1002	SSC-FA-03	1.800	1439.6	(M-H)-
1003	SSC-A-FA-02	6.353	1416.6	(M+H)+
1004	SSC-FA-03	1.813	1292.9	(M-H)-
1005	SSC-FA-03	2.143	1455.9	(M-H)-
1006	SSC-A-FA-02	6.283	1446.6	(M-H)-
1007	SSC-AF-00	2.279	1348.6	(M-H)-
1008	SSC-AF-00	2.137	1444.0	(M-H)-
1009	SSC-FA-03	2.075	1509.8	(M-H)-
1010	SSC-FA-03	1.879	1399.8	(M-H)-
1011	SSC-AF-00	2.057	1307.9	(M-H)-
1012	SSC-AF-00	2.168	1463.0	(M-H)-
1013	SSC-TFA-07	1.363	1272.8	(M+H)+
1014	SSC-TFA-07	1.541	1348.6	(M+H)+
1015	SSC-AF-00	2.183	1481.9	(M-H)-
1016	SSC-FA-03	2.263	1541.8	(M-H)-
1017	SSC-FA-03	1.724	1391.9	(M-H)-
1018	SSC-TFA-07	1.432	1344.6	(M+H)+
1019	SSC-TFA-07	1.481	1316.7	(M+H)+
1020	SSC-TFA-07	1.491	1302.7	(M+H)+
1021	SSC-AF-00	2.156	1328.7	(M+H)+
1022	SSC-AF-00	2.220	1454.0	(M-H)-
1023	SSC-AF-00	2.195	1363.0	(M-H)-
1024	SSC-AF-00	2.075	1368.0	(M-H)-
1025	SSC-FA-03	1.845	1492.9	(M-H)-
1026	SSC-FA-03	2.020	1443.8	(M-H)-

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1027	SSC-FA-03	1.808	1372.0	(M-H)-
1029	SSC-AF-00	2.129	1412.1	(M-H)-
1030	SSC-AF-00	2.084	1440.1	(M-H)-
1031	SSC-TFA-07	1.439	1278.8	(M+H)+
1032	SSC-AF-00	2.245	1332.6	(M+H)+
1033	SSC-TFA-07	1.604	1332.7	(M+H)+
1034	SSC-FA-03	1.741	1371.9	(M-H)-
1035	SSC-AF-00	2.209	1521.6	(M-H)-
1036	SSC-AF-00	2.179	1423.9	(M-H)-
1037	SSC-FA-03	1.952	1427.8	(M-H)-
1038	SSC-TFA-07	1.517	1304.7	(M+H)+
1039	SSC-A-FA-01	6.327	1616.8	(M+H)+
1040	SSC-AF-00	2.161	1410.0	(M-H)-
1041	SSC-FA-03	1.801	1401.9	(M-H)-
1042	SSC-A-AF-01	7.533	1421.8	(M-H)-
1043	SSC-AF-00	2.117	1317.8	(M+H)+
1044	SSC-AF-00	2.231	1537.6	(M-H)-
1045	SSC-AF-00	2.260	1441.8	(M-H)-
1046	SSC-FA-03	1.916	1326.9	(M-H)-
1047	SSC-FA-03	1.904	1423.7	(M-H)-
1048	SSC-TFA-07	1.339	1389.9	(M+H)+
1049	SSC-A-AF-02	7.935	1456.6	(M+H)+
1050	SSC-TFA-07	1.536	1316.7	(M+H)+
1051	SSC-TFA-07	1.453	1373.7	(M+H)+
1052	SSC-FA-03	2.075	1571.8	(M-H)-
1053	SSC-FA-03	2.221	1542.0	(M-H)-
1054	SSC-AF-00	2.107	1306.7	(M+H)+
1055	SSC-AF-00	2.137	1309.7	(M-H)-
1056	SSC-AF-00	2.129	1272.9	(M-H)-
1057	SSC-FA-03	1.869	1479.9	(M-H)-
1058	SSC-AF-00	2.183	1525.5	(M-H)-
1059	SSC-A-FA-01	5.319	1419.7	(M-H)-
1060	SSC-FA-03	1.897	1451.9	(M-H)-
1061	SSC-TFA-07	1.459	1427.7	(M+H)+
1062	SSC-A-AF-01	7.752	1454.6	(M+H)+
1063	SSC-AF-00	2.229	1509.8	(M-H)-
1064	SSC-AF-00	2.169	1411.9	(M-H)-
1065	SSC-AF-00	2.176	1314.5	(M-H)-
1066	SSC-FA-03	1.765	1258.5	(M-H)-
1067	SSC-TFA-07	1.364	1270.8	(M+H)+
1068	SSC-TFA-07	1.563	1320.7	(M+H)+
1069	SSC-TFA-07	1.473	1334.6	(M+H)+
1070	SSC-A-AF-01	7.624	1425.9	(M-H)-
1071	SSC-FA-03	1.613	1476.8	(M-H)-
1072	SSC-AF-00	2.125	1401.7	(M-H)-
1073	SSC-AF-00	2.191	1425.9	(M-H)-
1074	SSC-A-FA-02	6.265	1402.6	(M+H)+
1075	SSC-AF-00	2.137	1316.9	(M-H)-
1076	SSC-TFA-07	1.536	1308.7	(M+H)+
1077	SSC-FA-03	1.847	1310.5	(M-H)-
1078	SSC-FA-03	1.923	1522.8	(M-H)-
1079	SSC-TFA-07	1.527	1356.6	(M+H)+
1080	SSC-A-AF-01	7.272	1410.0	(M-H)-
1081	SSC-FA-03	1.516	1492.6	(M-H)-

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1082	SSC-TFA-07	1.555	1328.7	(M+H)+
1083	SSC-FA-03	1.875	1306.9	(M-H)-
1084	SSC-TFA-07	1.411	1306.7	(M+H)+
1085	SSC-TFA-07	1.391	1391.8	(M+H)+
1086	SSC-AA-20	2.083	1290.4	(M-H)-
1087	SSC-FA-03	1.739	1518.9	(M-H)-
1088	SSC-FA-03	1.880	1294.5	(M-H)-
1089	SSC-AF-00	2.185	1468.0	(M-H)-
1090	SSC-TFA-07	1.355	1228.8	(M+H)+
1091	SSC-FA-03	1.860	1422.1	(M-H)-
1092	SSC-TFA-07	1.373	1455.7	(M+H)+
1093	SSC-FA-03	2.097	1457.8	(M-H)-
1094	SSC-FA-03	1.800	1449.7	(M-H)-
1095	SSC-TFA-07	1.577	1318.8	(M+H)+
1096	SSC-AF-00	2.328	1544.0	(M+H)+
1097	SSC-TFA-07	1.429	1254.8	(M+H)+
1098	SSC-AF-00	2.060	1398.0	(M-H)-
1099	SSC-AF-00	2.131	1407.6	(M-H)-
1100	SSC-FA-03	1.883	1486.0	(M-H)-
1101	SSC-FA-03	1.879	1415.9	(M-H)-
1102	SSC-TFA-07	1.604	1372.7	(M+H)+
1103	SSC-FA-03	1.909	1397.9	(M-H)-
1104	SSC-A-AF-01	7.524	1480.6	(M+H)+
1105	SSC-TFA-07	1.485	1340.6	(M+H)+
1106	SSC-AF-00	2.171	1411.9	(M-H)-
1107	SSC-TFA-07	1.495	1314.7	(M+H)+
1108	SSC-A-FA-01	5.573	1510.7	(M+H)+
1109	SSC-AF-00	2.161	1399.9	(M-H)-
1110	SSC-TFA-07	1.527	1348.6	(M+H)+
1111	SSC-TFA-07	1.424	1262.7	(M+H)+
1112	SSC-AF-00	2.157	1454.1	(M+H)+
1113	SSC-AF-00	2.301	1481.8	(M-H)-
1114	SSC-AF-00	2.200	1437.9	(M-H)-
1115	SSC-AF-00	2.293	1485.8	(M+H)+
1116	SSC-FA-03	1.749	1515.8	(M-H)-
1117	SSC-A-FA-01	5.455	1397.6	(M+H)+
1118	SSC-FA-03	1.989	1397.5	(M-H)-
1119	SSC-TFA-07	1.463	1449.7	(M+H)+
1120	SSC-A-FA-01	5.471	1421.8	(M-H)-
1121	SSC-FA-03	1.825	1383.6	(M-H)-
1122	SSC-AF-00	2.193	1402.7	(M-H)-
1123	SSC-FA-03	1.929	1490.0	(M-H)-
1124	SSC-TFA-07	1.453	1373.7	(M+H)+
1125	SSC-AF-00	2.144	1407.9	(M-H)-
1126	SSC-TFA-07	1.539	1340.6	(M+H)+
1127	SSC-FA-03	1.940	1524.0	(M-H)-
1128	SSC-TFA-07	1.529	1413.7	(M+H)+
1129	SSC-FA-03	2.043	1565.5	(M-H)-
1130	SSC-AF-00	2.168	1387.9	(M-H)-
1131	SSC-A-AF-01	7.592	1395.7	(M-H)-
1132	SSC-FA-03	1.993	1425.8	(M-H)-
1133	SSC-AF-00	2.157	1346.7	(M+H)+
1134	SSC-AF-00	2.240	1452.0	(M-H)-
1135	SSC-FA-03	1.444	1488.8	(M-H)-

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1136	SSC-FA-03	1.953	1483.9	(M-H)-
1137	SSC-A-FA-01	5.269	1439.6	(M-H)-
1138	SSC-FA-03	2.125	1427.9	(M-H)-
1139	SSC-A-AF-01	7.524	1557.7	(M-H)-
1140	SSC-A-FA-01	4.973	1427.7	(M+H)+
1141	SSC-A-FA-01	5.353	1419.7	(M-H)-
1142	SSC-A-FA-01	5.333	1439.8	(M-H)-
1143	SSC-A-FA-01	5.688	1470.1	(M-H)-
1144	SSC-A-FA-01	5.969	1470.1	(M-H)-
1145	SSC-A-AF-01	7.457	1437.8	(M-H)-
1146	SSC-A-FA-01	5.632	1487.8	(M-H)-
1148	SSC-A-AF-01	7.523	1433.8	(M-H)-
1149	SSC-A-FA-01	5.876	1499.6	(M+H)+
1150	SSC-FA-03	2.049	1454.0	(M-H)-
1151	SSC-A-FA-01	5.496	1517.8	(M-H)-
1152	SSC-A-AF-01	7.393	1417.6	(M-H)-
1153	SSC-FA-03	1.961	1336.5	(M-H)-
1154	SSC-A-AF-01	7.671	1469.9	(M-H)-
1155	SSC-AF-00	2.105	1513.4	(M-H)-
1156	SSC-FA-03	1.977	1471.7	(M+H)+
1157	SSC-FA-03	2.037	1428.0	(M-H)-
1158	SSC-A-AF-01	7.832	1467.9	(M-H)-
1159	SSC-A-AF-01	7.680	1501.7	(M-H)-
1160	SSC-A-FA-01	5.996	1450.0	(M-H)-
1161	SSC-FA-03	1.984	1425.9	(M-H)-
1162	SSC-A-FA-01	5.751	1458.1	(M-H)-
1163	SSC-A-AF-01	7.803	1447.9	(M-H)-
1164	SSC-A-AF-01	7.359	1382.0	(M-H)-
1165	SSC-A-FA-01	5.871	1413.9	(M-H)-
1166	SSC-A-FA-01	5.811	1450.0	(M-H)-
1167	SSC-A-FA-01	5.355	1455.8	(M-H)-
1168	SSC-FA-03	1.980	1457.9	(M-H)-
1169	SSC-AF-00	2.061	1419.9	(M-H)-
1170	SSC-A-FA-01	5.619	1414.0	(M-H)-
1171	SSC-A-AF-01	7.760	1453.8	(M-H)-
1172	SSC-FA-03	2.005	1413.7	(M-H)-
1173	SSC-A-AF-01	7.568	1453.7	(M+H)+
1174	SSC-AF-00	2.140	1386.0	(M-H)-
1175	SSC-A-AF-01	7.673	1504.0	(M-H)-
1176	SSC-A-AF-01	7.804	1465.8	(M-H)-
1177	SSC-AF-00	2.035	1405.5	(M-H)-
1178	SSC-FA-03	1.801	1427.9	(M-H)-
1179	SSC-A-FA-01	6.292	1505.6	(M+H)+
1180	SSC-FA-03	1.896	1427.9	(M-H)-
1181	SSC-AF-00	2.084	1483.0	(M-H)-
1182	SSC-A-FA-01	5.596	1565.7	(M-H)-
1183	SSC-A-AF-01	7.759	1515.6	(M+H)+
1184	SSC-FA-03	1.736	1389.8	(M-H)-
1185	SSC-FA-03	2.019	1354.6	(M-H)-
1186	SSC-AF-00	2.239	1453.9	(M-H)-
1187	SSC-FA-03	1.635	1345.7	(M-H)-
1188	SSC-FA-03	1.771	1399.8	(M-H)-
1189	SSC-A-AF-01	7.953	1455.8	(M-H)-

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1190	SSC-A-AF-01	7.725	1501.8	(M-H)-
1191	SSC-AF-00	2.101	1456.9	(M-H)-
1192	SSC-A-FA-01	6.016	1450.0	(M-H)-
1193	SSC-A-AF-01	7.640	1469.8	(M-H)-
1194	SSC-A-FA-01	6.040	1477.9	(M-H)-
1195	SSC-FA-03	1.763	1401.5	(M-H)-
1196	SSC-A-FA-01	5.849	1549.9	(M-H)-
1197	SSC-A-FA-01	5.459	1422.0	(M-H)-
1198	SSC-A-AF-01	7.805	1437.8	(M-H)-
1199	SSC-A-FA-01	5.912	1449.8	(M-H)-
1200	SSC-FA-03	1.781	1415.5	(M+H)+
1201	SSC-A-FA-01	5.771	1458.1	(M-H)-
1202	SSC-AF-00	2.189	1455.6	(M-H)-
1203	SSC-FA-03	2.121	1454.0	(M-H)-
1204	SSC-A-FA-01	6.067	1467.9	(M-H)-
1205	SSC-A-FA-01	5.767	1410.1	(M-H)-
1206	SSC-A-AF-01	7.420	1573.7	(M-H)-
1207	SSC-FA-03	2.064	1497.9	(M-H)-
1208	SSC-A-AF-01	7.500	1439.6	(M-H)-
1209	SSC-A-FA-01	5.433	1466.1	(M-H)-
1210	SSC-A-AF-01	7.595	1534.0	(M-H)-
1211	SSC-FA-03	1.887	1385.9	(M-H)-
1212	SSC-FA-03	1.771	1423.5	(M+H)+
1213	SSC-AF-00	2.108	1335.0	(M-H)-
1214	SSC-FA-03	1.809	1439.8	(M-H)-
1215	SSC-A-FA-01	5.611	1504.1	(M-H)-
1216	SSC-FA-03	1.849	1399.4	(M-H)-
1217	SSC-A-AF-01	7.496	1437.7	(M+H)+
1218	SSC-FA-03	1.948	1362.6	(M-H)-
1219	SSC-AF-00	2.119	1473.8	(M-H)-
1220	SSC-A-FA-01	5.807	1469.6	(M+H)+
1221	SSC-AF-00	2.115	1308.5	(M-H)-
1222	SSC-AF-00	2.113	1308.7	(M-H)-
1223	SSC-A-AF-01	7.413	1425.8	(M-H)-
1224	SSC-A-FA-01	5.505	1466.0	(M-H)-
1225	SSC-FA-03	1.799	1306.9	(M-H)-
1226	SSC-FA-03	1.891	1455.9	(M+H)+
1227	SSC-FA-03	2.128	1454.0	(M-H)-
1228	SSC-A-AF-01	7.584	1454.0	(M-H)-
1229	SSC-FA-03	2.159	1547.8	(M-H)-
1230	SSC-AF-00	2.075	1433.8	(M-H)-
1231	SSC-A-FA-01	5.629	1441.7	(M+H)+
1232	SSC-A-AF-01	7.825	1448.0	(M-H)-
1233	SSC-A-AF-01	7.552	1503.7	(M-H)-
1234	SSC-A-FA-01	5.547	1517.8	(M-H)-
1235	SSC-AF-00	2.152	1453.9	(M-H)-
1236	SSC-A-FA-01	5.704	1501.8	(M-H)-
1237	SSC-A-AF-01	7.513	1440.0	(M-H)-
1238	SSC-FA-03	1.759	1475.7	(M-H)-
1239	SSC-FA-03	1.735	1294.6	(M-H)-
1240	SSC-FA-03	1.597	1388.6	(M-H)-
1241	SSC-A-AF-01	7.871	1455.6	(M-H)-
1242	SSC-A-FA-01	5.708	1523.7	(M-H)-
1243	SSC-FA-03	1.995	1413.9	(M-H)-

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1244	SSC-A-FA-01	5.623	1516.0	(M-H)-
1245	SSC-A-FA-01	5.728	1495.5	(M-H)-
1246	SSC-AF-00	2.047	1431.8	(M-H)-
1247	SSC-AF-00	2.125	1387.4	(M-H)-
1248	SSC-A-FA-01	5.768	1464.0	(M+H)+
1249	SSC-AF-00	2.044	1453.9	(M-H)-
1250	SSC-A-FA-01	5.671	1500.1	(M-H)-
1251	SSC-A-FA-01	5.504	1481.8	(M-H)-
1252	SSC-A-FA-01	5.383	1396.0	(M-H)-
1253	SSC-A-FA-01	5.845	1414.1	(M-H)-
1254	SSC-A-AF-01	7.511	1525.5	(M-H)-
1255	SSC-FA-03	2.147	1453.8	(M-H)-
1256	SSC-FA-03	1.660	1345.7	(M-H)-
1257	SSC-FA-03	1.857	1427.8	(M-H)-
1258	SSC-FA-03	1.849	1483.8	(M-H)-
1259	SSC-A-FA-01	5.759	1499.6	(M+H)+
1260	SSC-A-FA-01	5.477	1567.9	(M-H)-
1261	SSC-A-FA-01	5.271	1550.1	(M-H)-
1262	SSC-A-AF-01	7.683	1424.0	(M-H)-
1263	SSC-AF-00	2.123	1489.6	(M-H)-
1264	SSC-A-FA-01	5.695	1432.1	(M-H)-
1265	SSC-FA-03	2.044	1507.7	(M-H)-
1266	SSC-A-AF-01	7.741	1455.9	(M+H)+
1267	SSC-A-AF-01	7.871	1455.9	(M-H)-
1268	SSC-FA-03	1.655	1345.7	(M-H)-
1269	SSC-A-AF-01	7.455	1431.8	(M-H)-
1270	SSC-A-AF-01	7.739	1447.8	(M-H)-
1271	SSC-A-FA-01	5.608	1560.0	(M-H)-
1272	SSC-A-FA-01	5.901	1468.0	(M-H)-
1273	SSC-FA-03	1.960	1414.0	(M-H)-
1274	SSC-AF-00	2.204	1425.8	(M-H)-
1275	SSC-A-FA-01	5.880	1426.1	(M-H)-
1276	SSC-AF-00	2.192	1440.0	(M-H)-
1277	SSC-AF-00	2.135	1401.6	(M-H)-
1278	SSC-A-AF-01	7.327	1461.5	(M-H)-
1279	SSC-FA-03	1.817	1449.9	(M-H)-
1280	SSC-AF-00	2.203	1425.6	(M-H)-
1281	SSC-A-FA-01	6.031	1490.0	(M-H)-
1282	SSC-A-AF-01	7.433	1419.9	(M-H)-
1283	SSC-A-FA-01	5.857	1460.0	(M-H)-
1284	SSC-FA-03	1.616	1496.8	(M-H)-
1285	SSC-A-FA-01	5.607	1463.8	(M-H)-
1286	SSC-AF-00	2.145	1459.6	(M-H)-
1287	SSC-A-FA-01	5.337	1409.5	(M+H)+
1288	SSC-FA-03	1.876	1499.9	(M-H)-
1289	SSC-A-AF-01	7.719	1503.7	(M+H)+
1290	SSC-A-AF-01	7.801	1488.1	(M-H)-
1291	SSC-FA-03	2.011	1439.8	(M-H)-
1292	SSC-A-FA-01	5.412	1396.0	(M-H)-
1293	SSC-A-FA-01	5.055	1491.9	(M+H)+
1294	SSC-FA-03	1.456	1468.8	(M-H)-
1295	SSC-A-AF-01	7.777	1462.1	(M-H)-
1296	SSC-A-FA-01	5.695	1455.9	(M-H)-
1297	SSC-A-FA-01	5.351	1576.0	(M-H)-

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1298	SSC-AF-00	2.095	1485.7	(M-H)-
1299	SSC-A-FA-01	5.024	1441.8	(M-H)-
1300	SSC-FA-03	1.745	1258.8	(M-H)-
1301	SSC-A-FA-01	5.500	1507.6	(M+H)+
1302	SSC-FA-03	2.048	1428.0	(M-H)-
1303	SSC-A-AF-01	7.389	1551.9	(M-H)-
1304	SSC-AF-00	2.033	1405.7	(M-H)-
1305	SSC-AF-00	2.088	1333.6	(M-H)-
1306	SSC-A-FA-01	5.596	1458.0	(M-H)-
1307	SSC-FA-03	1.875	1322.5	(M-H)-
1308	SSC-A-AF-01	7.648	1456.0	(M-H)-
1309	SSC-A-FA-01	4.709	1411.9	(M-H)-
1310	SSC-A-AF-01	7.676	1489.7	(M+H)+
1311	SSC-A-FA-01	5.421	1539.7	(M-H)-
1312	SSC-A-AF-01	7.629	1517.9	(M-H)-
1313	SSC-FA-03	1.787	1415.8	(M-H)-
1314	SSC-AF-00	2.147	1399.9	(M-H)-
1315	SSC-AF-00	2.208	1425.8	(M-H)-
1316	SSC-AF-00	2.163	1399.9	(M-H)-
1317	SSC-A-FA-01	5.619	1499.6	(M+H)+
1318	SSC-AF-00	2.124	1355.7	(M-H)-
1319	SSC-A-FA-01	5.979	1501.7	(M-H)-
1320	SSC-A-AF-01	7.676	1501.8	(M+H)+
1321	SSC-FA-03	1.956	1468.0	(M-H)-
1322	SSC-A-FA-01	5.521	1463.9	(M-H)-
1323	SSC-AF-00	2.195	1439.9	(M-H)-
1324	SSC-A-AF-01	7.652	1410.0	(M-H)-
1325	SSC-A-FA-01	5.819	1447.9	(M-H)-
1326	SSC-A-FA-01	5.428	1455.8	(M-H)-
1327	SSC-AF-00	2.064	1407.8	(M-H)-
1328	SSC-AF-00	2.117	1324.5	(M+H)+
1329	SSC-FA-03	1.792	1413.5	(M-H)-
1330	SSC-A-FA-01	5.368	1547.6	(M-H)-
1331	SSC-AF-00	2.116	1334.5	(M-H)-
1332	SSC-FA-03	1.908	1340.5	(M-H)-
1333	SSC-AF-00	2.163	1441.8	(M-H)-
1334	SSC-AF-00	2.147	1411.8	(M-H)-
1335	SSC-A-AF-01	7.671	1531.8	(M-H)-
1336	SSC-A-AF-01	7.255	1428.0	(M-H)-
1337	SSC-A-FA-02	6.216	1481.7	(M+H)+
1338	SSC-A-FA-01	5.437	1469.9	(M-H)-
1339	SSC-A-FA-01	5.604	1503.9	(M-H)-
1340	SSC-A-FA-01	5.424	1408.0	(M-H)-
1341	SSC-A-FA-01	6.053	1514.0	(M-H)-
1342	SSC-A-AF-01	7.621	1414.1	(M-H)-
1343	SSC-A-FA-01	5.456	1490.0	(M-H)-
1344	SSC-FA-03	1.691	1419.7	(M-H)-
1345	SSC-FA-03	2.153	1454.0	(M-H)-
1346	SSC-A-FA-01	5.835	1449.9	(M-H)-
1347	SSC-FA-03	2.111	1453.8	(M-H)-
1348	SSC-A-FA-01	5.337	1543.6	(M+H)+
1349	SSC-FA-03	1.755	1463.5	(M+H)+
1350	SSC-AF-00	2.072	1445.9	(M-H)-
1351	SSC-A-FA-01	5.725	1450.0	(M-H)-

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1352	SSC-FA-03	1.920	1475.3	(M-H)-
1353	SSC-AF-00	2.163	1412.0	(M-H)-
1354	SSC-AF-00	2.216	1426.0	(M-H)-
1355	SSC-A-AF-01	7.425	1457.9	(M-H)-
1356	SSC-A-AF-01	7.568	1503.7	(M-H)-
1357	SSC-A-FA-01	6.156	1487.8	(M-H)-
1358	SSC-AF-00	2.095	1449.8	(M-H)-
1359	SSC-A-FA-01	5.357	1467.9	(M-H)-
1360	SSC-A-AF-01	7.449	1473.6	(M-H)-
1361	SSC-FA-03	1.813	1457.8	(M-H)-
1362	SSC-A-FA-01	5.183	1506.0	(M-H)-
1363	SSC-A-AF-01	7.851	1460.0	(M-H)-
1364	SSC-A-FA-01	5.587	1520.0	(M-H)-
1365	SSC-A-FA-01	5.475	1422.0	(M-H)-
1366	SSC-A-FA-02	6.213	1459.7	(M+H)+
1367	SSC-A-FA-01	5.889	1458.1	(M-H)-
1368	SSC-A-AF-01	7.532	1478.0	(M-H)-
1369	SSC-A-FA-01	5.992	1495.8	(M-H)-
1370	SSC-A-FA-01	5.833	1457.7	(M+H)+
1371	SSC-A-FA-01	5.392	1517.9	(M+H)+
1372	SSC-FA-03	1.871	1405.7	(M-H)-
1373	SSC-TFA-07	1.352	1322.8	(M+H)+
1374	SSC-A-AF-01	8.067	1457.7	(M+H)+
1375	SSC-TFA-07	1.348	1322.7	(M+H)+
1376	SSC-AF-00	2.192	1455.9	(M-H)-
1377	SSC-FA-03	1.755	1284.4	(M-H)-
1378	SSC-AF-00	2.161	1290.9	(M-H)-
1379	SSC-FA-03	2.015	1340.5	(M-H)-
1380	SSC-FA-03	1.821	1264.5	(M-H)-
1381	SSC-FA-03	1.829	1286.9	(M-H)-
1382	SSC-AF-00	2.132	1300.5	(M+H)+
1383	SSC-FA-03	1.863	1352.5	(M-H)-
1384	SSC-AF-00	2.185	1330.6	(M+H)+
1385	SSC-FA-03	1.845	1342.4	(M+H)+
1386	SSC-FA-03	1.875	1326.7	(M-H)-
1387	SSC-FA-03	1.816	1276.5	(M-H)-
1388	SSC-AF-00	2.144	1314.6	(M-H)-
1389	SSC-AF-00	2.217	1320.9	(M-H)-
1390	SSC-FA-03	1.905	1278.9	(M-H)-
1391	SSC-AF-00	2.160	1290.9	(M-H)-
1392	SSC-AF-00	2.072	1340.4	(M+H)+
1393	SSC-AF-00	2.173	1382.4	(M-H)-
1394	SSC-AF-00	2.188	1340.9	(M-H)-
1395	SSC-FA-03	1.969	1394.9	(M-H)-
1396	SSC-FA-03	1.905	1368.8	(M-H)-
1397	SSC-FA-03	1.792	1328.6	(M+H)+
1398	SSC-FA-03	1.763	1272.8	(M-H)-
1399	SSC-AF-00	2.120	1352.8	(M-H)-
1400	SSC-FA-03	2.071	1333.0	(M-H)-
1401	SSC-FA-03	2.001	1394.4	(M-H)-
1402	SSC-AF-00	2.124	1298.9	(M-H)-
1403	SSC-AF-00	2.133	1380.8	(M-H)-
1404	SSC-AF-00	2.133	1393.8	(M-H)-
1405	SSC-FA-03	1.904	1426.0	(M+H)+

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1406	SSC-FA-03	1.787	1360.3	(M-H)-
1407	SSC-TFA-07	1.359	1337.8	(M+H)+
1408	SSC-FA-03	1.797	1368.8	(M-H)-
1409	SSC-TFA-07	1.376	1463.7	(M+H)+
1410	SSC-TFA-07	1.348	1415.7	(M+H)+
1411	SSC-FA-03	1.672	1345.6	(M+H)+
1412	SSC-TFA-07	1.304	1333.8	(M+H)+
1413	SSC-FA-03	1.903	1411.8	(M-H)-
1414	SSC-AF-00	2.113	1451.7	(M-H)-
1415	SSC-AF-00	2.143	1419.4	(M-H)-
1416	SSC-AF-00	2.180	1413.9	(M-H)-
1417	SSC-AF-00	2.168	1479.6	(M+H)+
1418	SSC-AF-00	2.137	1356.8	(M-H)-
1419	SSC-FA-03	1.985	1479.7	(M-H)-
1420	SSC-FA-03	1.904	1425.9	(M-H)-
1421	SSC-FA-03	1.847	1439.8	(M-H)-
1422	SSC-FA-03	1.889	1453.8	(M-H)-
1423	SSC-AF-00	2.152	1401.5	(M+H)+
1424	SSC-TFA-07	1.468	1411.7	(M+H)+
1425	SSC-FA-03	1.767	1469.9	(M-H)-
1426	SSC-FA-03	1.793	1423.3	(M-H)-
1427	SSC-FA-03	1.715	1372.3	(M-H)-
1428	SSC-AF-00	2.105	1449.8	(M-H)-
1429	SSC-AF-00	2.135	1465.8	(M-H)-
1430	SSC-TFA-07	1.425	1477.7	(M+H)+
1431	SSC-TFA-07	1.339	1413.6	(M+H)+
1432	SSC-TFA-07	1.572	1427.7	(M+H)+
1433	SSC-AF-00	2.176	1489.9	(M-H)-
1434	SSC-AF-00	2.301	1515.9	(M-H)-
1435	SSC-FA-03	2.109	1441.6	(M-H)-
1436	SSC-AF-00	2.333	1513.9	(M-H)-
1437	SSC-FA-03	2.192	1499.9	(M-H)-
1438	SSC-FA-03	2.000	1427.9	(M-H)-
1439	SSC-FA-03	2.059	1428.0	(M-H)-
1440	SSC-AF-00	2.315	1499.9	(M-H)-
1441	SSC-FA-03	2.076	1454.0	(M-H)-
1442	SSC-AF-00	2.263	1489.8	(M-H)-
1443	SSC-FA-03	2.272	1525.7	(M-H)-
1444	SSC-FA-03	1.881	1429.9	(M-H)-
1445	SSC-FA-03	2.032	1456.0	(M-H)-
1446	SSC-AF-00	2.268	1489.9	(M-H)-
1447	SSC-AF-00	2.217	1441.6	(M+H)+
1448	SSC-AF-00	2.189	1443.8	(M-H)-
1449	SSC-FA-03	2.140	1453.8	(M-H)-
1450	SSC-TFA-07	1.500	1487.9	(M+H)+
1451	SSC-AF-00	2.087	1318.7	(M+H)+
1452	SSC-TFA-07	1.479	1290.8	(M+H)+
1453	SSC-TFA-07	1.403	1411.8	(M+H)+
1454	SSC-TFA-07	1.481	1385.9	(M+H)+
1455	SSC-TFA-07	1.360	1385.8	(M+H)+
1456	SSC-TFA-07	1.447	1413.8	(M+H)+
1457	SSC-AF-00	2.148	1290.7	(M+H)+
1458	SSC-TFA-07	1.468	1385.9	(M+H)+
1459	SSC-TFA-07	1.521	1304.7	(M+H)+

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1460	SSC-AF-00	2.088	1328.7	(M+H)+
1461	SSC-AF-00	2.176	1306.9	(M-H)-
1462	SSC-FA-03	1.760	1292.5	(M-H)-
1463	SSC-FA-03	1.788	1346.4	(M-H)-
1464	SSC-AF-00	2.151	1398.5	(M+H)+
1465	SSC-FA-03	1.892	1294.6	(M-H)-
1466	SSC-FA-03	1.741	1266.6	(M-H)-
1467	SSC-TFA-07	1.491	1399.8	(M+H)+
1468	SSC-AF-00	2.223	1402.9	(M-H)-
1469	SSC-TFA-07	1.399	1260.8	(M+H)+
1470	SSC-AF-00	2.144	1360.8	(M-H)-
1471	SSC-AF-00	2.149	1322.9	(M-H)-
1472	SSC-TFA-07	1.485	1384.7	(M+H)+
1473	SSC-AF-00	2.161	1384.9	(M-H)-
1474	SSC-TFA-07	1.453	1274.8	(M+H)+
1475	SSC-FA-03	1.916	1402.8	(M-H)-
1476	SSC-TFA-07	1.439	1372.7	(M+H)+
1477	SSC-FA-03	1.993	1340.9	(M-H)-
1478	SSC-AF-00	2.123	1272.5	(M-H)-
1479	SSC-FA-03	1.939	1310.5	(M-H)-
1480	SSC-TFA-07	1.536	1510.9	(M+H)+
1481	SSC-FA-03	1.839	1284.9	(M-H)-
1482	SSC-FA-03	2.025	1416.8	(M-H)-
1483	SSC-TFA-07	1.404	1304.9	(M+H)+
1484	SSC-TFA-07	1.471	1372.7	(M+H)+
1485	SSC-FA-03	1.763	1280.9	(M-H)-
1486	SSC-AF-00	2.081	1320.8	(M-H)-
1487	SSC-AF-00	2.183	1348.9	(M-H)-
1488	SSC-FA-03	1.899	1360.9	(M-H)-
1489	SSC-TFA-07	1.447	1371.8	(M+H)+
1490	SSC-TFA-07	1.484	1288.8	(M+H)+
1491	SSC-FA-03	1.851	1298.9	(M-H)-
1492	SSC-AF-00	2.172	1425.7	(M+H)+
1493	SSC-AF-00	2.115	1274.7	(M+H)+
1494	SSC-FA-03	1.885	1320.5	(M+H)+
1495	SSC-TFA-07	1.515	1413.8	(M+H)+
1496	SSC-FA-03	1.883	1388.4	(M-H)-
1497	SSC-FA-03	1.899	1374.4	(M-H)-
1498	SSC-FA-03	1.873	1308.5	(M-H)-
1499	SSC-AF-00	2.205	1326.9	(M-H)-
1500	SSC-FA-03	1.883	1334.9	(M-H)-
1501	SSC-AF-00	2.137	1398.0	(M-H)-
1502	SSC-TFA-07	1.491	1476.9	(M+H)+
1503	SSC-TFA-07	1.529	1304.8	(M+H)+
1504	SSC-FA-03	1.984	1362.6	(M-H)-
1505	SSC-TFA-07	1.560	1386.7	(M+H)+
1506	SSC-FA-03	1.796	1258.5	(M-H)-
1507	SSC-AF-00	2.183	1360.5	(M-H)-
1508	SSC-FA-03	1.895	1362.4	(M-H)-
1509	SSC-AF-00	2.140	1324.7	(M+H)+
1510	SSC-FA-03	1.955	1312.9	(M-H)-
1511	SSC-TFA-07	1.495	1278.8	(M+H)+
1512	SSC-FA-03	1.787	1360.3	(M-H)-
1513	SSC-TFA-07	1.537	1425.8	(M+H)+

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1514	SSC-AF-00	2.109	1306.4	(M-H)-
1515	SSC-TFA-07	1.396	1298.8	(M+H)+
1516	SSC-AF-00	2.115	1370.9	(M-H)-
1517	SSC-AF-00	2.225	1348.9	(M-H)-
1518	SSC-AF-00	2.147	1288.8	(M+H)+
1519	SSC-TFA-07	1.475	1372.7	(M+H)+
1520	SSC-AF-00	2.172	1350.4	(M+H)+
1521	SSC-AF-00	2.223	1336.9	(M-H)-
1522	SSC-FA-03	1.936	1372.4	(M-H)-
1523	SSC-FA-03	1.784	1334.4	(M-H)-
1524	SSC-AF-00	2.149	1376.8	(M-H)-
1525	SSC-AF-00	2.136	1306.9	(M-H)-
1526	SSC-AF-00	2.067	1302.8	(M+H)+
1527	SSC-TFA-07	1.536	1314.8	(M+H)+
1528	SSC-TFA-07	1.464	1449.8	(M+H)+
1529	SSC-TFA-07	1.404	1304.8	(M+H)+
1530	SSC-AF-00	2.263	1329.0	(M-H)-
1531	SSC-FA-03	2.080	1340.5	(M-H)-
1532	SSC-AF-00	2.113	1451.9	(M-H)-
1533	SSC-AF-00	2.077	1270.7	(M+H)+
1534	SSC-AF-00	2.132	1274.7	(M+H)+
1535	SSC-AF-00	2.199	1286.5	(M-H)-
1536	SSC-AF-00	2.164	1320.9	(M-H)-
1537	SSC-FA-03	1.907	1348.9	(M-H)-
1538	SSC-TFA-07	1.492	1407.8	(M+H)+
1539	SSC-FA-03	1.975	1299.0	(M-H)-
1540	SSC-FA-03	1.861	1332.5	(M-H)-
1541	SSC-TFA-07	1.477	1469.8	(M+H)+
1542	SSC-AF-00	2.224	1390.4	(M-H)-
1543	SSC-AF-00	2.176	1298.9	(M-H)-
1544	SSC-FA-03	1.931	1300.5	(M-H)-
1545	SSC-AF-00	2.128	1274.7	(M+H)+
1546	SSC-TFA-07	1.431	1358.7	(M+H)+
1547	SSC-TFA-07	1.428	1298.7	(M+H)+
1548	SSC-TFA-07	1.632	1358.7	(M+H)+
1549	SSC-TFA-07	1.444	1312.7	(M+H)+
1550	SSC-TFA-07	1.444	1312.6	(M+H)+
1551	SSC-AF-00	2.079	1326.4	(M-H)-
1552	SSC-TFA-07	1.727	1495.8	(M+H)+
1553	SSC-TFA-07	1.556	1453.8	(M+H)+
1554	SSC-TFA-07	1.699	1467.7	(M+H)+
1555	SSC-TFA-07	1.499	1463.7	(M+H)+
1556	SSC-TFA-07	1.405	1302.6	(M+H)+
1557	SSC-TFA-07	1.443	1413.7	(M+H)+
1558	SSC-TFA-07	1.657	1469.7	(M+H)+
1559	SSC-AF-00	2.203	1473.9	(M-H)-
1560	SSC-TFA-07	1.587	1344.7	(M+H)+
1561	SSC-TFA-07	1.689	1503.7	(M+H)+
1562	SSC-TFA-07	1.425	1385.6	(M+H)+
1563	SSC-TFA-07	1.493	1382.6	(M+H)+
1564	SSC-TFA-07	1.476	1302.7	(M+H)+
1565	SSC-AF-00	2.140	1366.8	(M-H)-
1566	SSC-AF-00	2.211	1451.8	(M-H)-
1567	SSC-TFA-07	1.473	1366.6	(M+H)+

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1568	SSC-TFA-07	1.525	1316.7	(M+H)+
1569	SSC-AF-00	2.208	1440.0	(M-H)-
1570	SSC-AF-00	2.100	1310.5	(M-H)-
1571	SSC-TFA-07	1.417	1316.6	(M+H)+
1572	SSC-TFA-07	1.484	1366.6	(M+H)+
1573	SSC-TFA-07	1.480	1368.6	(M+H)+
1574	SSC-TFA-07	1.760	1509.8	(M+H)+
1575	SSC-TFA-07	1.461	1352.7	(M+H)+
1576	SSC-TFA-07	1.473	1473.6	(M+H)+
1577	SSC-AF-00	2.279	1482.0	(M-H)-
1578	SSC-TFA-07	1.391	1274.6	(M+H)+
1579	SSC-TFA-07	1.493	1463.7	(M+H)+
1580	SSC-TFA-07	1.624	1467.8	(M+H)+
1581	SSC-AF-00	2.301	1397.0	(M-H)-
1582	SSC-TFA-07	1.447	1334.5	(M+H)+
1583	SSC-TFA-07	1.445	1413.7	(M+H)+
1584	SSC-AF-00	2.131	1407.9	(M-H)-
1585	SSC-TFA-07	1.403	1302.6	(M+H)+
1586	SSC-AF-00	2.201	1340.4	(M-H)-
1587	SSC-TFA-07	1.452	1362.5	(M+H)+
1588	SSC-TFA-07	1.425	1425.7	(M+H)+
1589	SSC-TFA-07	1.472	1348.6	(M+H)+
1590	SSC-TFA-07	1.459	1376.5	(M+H)+
1591	SSC-TFA-07	1.424	1318.6	(M+H)+
1592	SSC-AF-00	2.233	1454.0	(M-H)-
1593	SSC-AF-00	2.204	1328.5	(M-H)-
1594	SSC-AF-00	2.124	1409.5	(M+H)+
1595	SSC-TFA-07	1.587	1441.7	(M+H)+
1596	SSC-AF-00	2.252	1468.0	(M-H)-
1597	SSC-TFA-07	1.473	1376.5	(M+H)+
1598	SSC-AF-00	2.101	1393.8	(M-H)-
1599	SSC-TFA-07	1.425	1316.7	(M+H)+
1600	SSC-TFA-07	1.740	1495.8	(M+H)+
1601	SSC-AF-00	2.221	1454.0	(M-H)-
1602	SSC-TFA-07	1.400	1302.6	(M+H)+
1603	SSC-AF-00	2.259	1480.1	(M-H)-
1604	SSC-TFA-07	1.416	1298.7	(M+H)+
1605	SSC-TFA-07	1.393	1314.6	(M+H)+
1606	SSC-TFA-07	1.395	1284.6	(M+H)+
1607	SSC-TFA-07	1.433	1288.6	(M+H)+
1608	SSC-AF-00	2.131	1407.5	(M-H)-
1609	SSC-TFA-07	1.491	1445.7	(M+H)+
1610	SSC-TFA-07	1.427	1316.7	(M+H)+
1611	SSC-AF-00	2.136	1427.7	(M-H)-
1612	SSC-TFA-07	1.609	1356.7	(M+H)+
1613	SSC-TFA-07	1.453	1352.6	(M+H)+
1614	SSC-TFA-07	1.416	1298.7	(M+H)+
1615	SSC-TFA-07	1.445	1332.5	(M+H)+
1616	SSC-TFA-07	1.557	1427.6	(M+H)+
1617	SSC-TFA-07	1.467	1366.5	(M+H)+
1618	SSC-AF-00	2.281	1382.9	(M-H)-
1619	SSC-TFA-07	1.617	1358.6	(M+H)+
1620	SSC-TFA-07	1.447	1352.6	(M+H)+
1621	SSC-TFA-07	1.463	1332.6	(M+H)+

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1622	SSC-AF-00	2.221	1452.0	(M-H)-
1623	SSC-TFA-07	1.443	1318.6	(M+H)+
1624	SSC-TFA-07	1.700	1517.8	(M+H)+
1625	SSC-TFA-07	1.441	1362.5	(M+H)+
1626	SSC-AF-00	2.128	1407.9	(M-H)-
1627	SSC-TFA-07	1.431	1298.7	(M+H)+
1628	SSC-AF-00	2.244	1390.9	(M-H)-
1629	SSC-TFA-07	1.481	1463.8	(M+H)+
1630	SSC-AF-00	2.155	1477.7	(M-H)-
1631	SSC-AF-00	2.104	1411.8	(M-H)-
1632	SSC-TFA-07	1.428	1298.7	(M+H)+
1633	SSC-TFA-07	1.487	1382.6	(M+H)+
1634	SSC-AF-00	2.100	1310.5	(M-H)-
1635	SSC-TFA-07	1.469	1368.6	(M+H)+
1636	SSC-TFA-07	1.469	1429.6	(M+H)+
1637	SSC-TFA-07	1.500	1382.6	(M+H)+
1638	SSC-AF-00	2.143	1397.8	(M-H)-
1639	SSC-TFA-07	1.513	1413.7	(M+H)+
1640	SSC-TFA-07	1.519	1479.8	(M+H)+
1641	SSC-TFA-07	1.511	1479.7	(M+H)+
1642	SSC-TFA-07	1.663	1467.8	(M+H)+
1643	SSC-TFA-07	1.496	1473.7	(M+H)+
1644	SSC-FA-03	2.124	1454.0	(M-H)-
1645	SSC-AF-00	2.101	1433.8	(M-H)-
1646	SSC-FA-03	1.849	1401.5	(M-H)-
1647	SSC-AF-00	2.120	1421.9	(M-H)-
1648	SSC-AF-00	2.136	1315.0	(M-H)-
1649	SSC-AF-00	2.131	1421.9	(M-H)-
1650	SSC-AF-00	2.216	1440.0	(M-H)-
1651	SSC-FA-03	2.100	1453.8	(M-H)-
1652	SSC-FA-03	1.947	1399.8	(M-H)-
1653	SSC-AF-00	2.029	1393.8	(M-H)-
1654	SSC-AF-00	2.200	1328.7	(M-H)-
1655	SSC-FA-03	1.755	1272.8	(M-H)-
1656	SSC-AF-00	2.137	1411.9	(M-H)-
1657	SSC-FA-03	1.988	1439.9	(M-H)-
1658	SSC-AF-00	2.121	1433.5	(M-H)-
1659	SSC-FA-03	1.844	1385.8	(M-H)-
1660	SSC-AF-00	2.167	1461.8	(M-H)-
1661	SSC-AF-00	2.139	1336.5	(M-H)-
1662	SSC-FA-03	1.885	1400.0	(M-H)-
1663	SSC-FA-03	2.127	1465.9	(M-H)-
1664	SSC-FA-03	1.759	1399.8	(M-H)-
1665	SSC-FA-03	1.821	1411.7	(M-H)-
1666	SSC-AF-00	2.117	1383.9	(M-H)-
1667	SSC-AF-00	2.084	1312.4	(M+H)+
1668	SSC-AF-00	2.232	1455.8	(M-H)-
1669	SSC-FA-03	1.956	1411.9	(M-H)-
1670	SSC-AF-00	2.105	1397.8	(M-H)-
1671	SSC-AF-00	2.225	1439.8	(M-H)-
1672	SSC-FA-03	1.920	1412.0	(M-H)-
1673	SSC-FA-03	2.000	1376.9	(M-H)-
1674	SSC-FA-03	1.731	1343.6	(M-H)-
1675	SSC-FA-03	1.959	1425.8	(M-H)-

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1676	SSC-AF-00	2.165	1408.0	(M-H)-
1677	SSC-AF-00	2.075	1369.9	(M-H)-
1678	SSC-AF-00	2.160	1411.9	(M-H)-
1679	SSC-AF-00	2.152	1437.8	(M-H)-
1680	SSC-FA-03	1.956	1413.9	(M-H)-
1681	SSC-AF-00	2.100	1357.9	(M-H)-
1682	SSC-FA-03	1.957	1350.9	(M-H)-
1683	SSC-FA-03	1.736	1280.9	(M-H)-
1684	SSC-FA-03	1.831	1385.8	(M-H)-
1685	SSC-FA-03	1.831	1433.8	(M-H)-
1686	SSC-AF-00	2.159	1399.9	(M-H)-
1687	SSC-FA-03	1.771	1373.9	(M-H)-
1688	SSC-FA-03	1.852	1287.0	(M-H)-
1689	SSC-AF-00	2.196	1425.9	(M-H)-
1690	SSC-AF-00	2.179	1454.0	(M-H)-
1691	SSC-FA-03	1.755	1254.4	(M-H)-
1692	SSC-FA-03	2.107	1454.0	(M-H)-
1693	SSC-AF-00	2.171	1490.8	(M-H)-
1694	SSC-FA-03	1.904	1336.9	(M-H)-
1695	SSC-FA-03	1.881	1397.8	(M-H)-
1696	SSC-FA-03	1.937	1399.5	(M+H)+
1697	SSC-FA-03	2.021	1440.0	(M-H)-
1698	SSC-FA-03	1.775	1395.7	(M-H)-
1699	SSC-AF-00	2.087	1371.9	(M-H)-
1700	SSC-AF-00	2.192	1461.6	(M-H)-
1701	SSC-AF-00	2.180	1465.9	(M-H)-
1702	SSC-AF-00	2.089	1298.4	(M-H)-
1703	SSC-FA-03	1.491	1476.8	(M-H)-
1704	SSC-FA-03	1.908	1451.8	(M-H)-
1705	SSC-FA-03	2.009	1439.9	(M-H)-
1706	SSC-FA-03	2.065	1354.8	(M-H)-
1707	SSC-FA-03	2.044	1453.8	(M-H)-
1708	SSC-AF-00	2.224	1439.8	(M-H)-
1709	SSC-AF-00	2.152	1399.6	(M-H)-
1710	SSC-FA-03	1.811	1411.8	(M-H)-
1711	SSC-AF-00	2.097	1386.0	(M-H)-
1712	SSC-FA-03	1.853	1385.9	(M-H)-
1713	SSC-AF-00	2.169	1413.9	(M-H)-
1714	SSC-AF-00	2.181	1362.6	(M-H)-
1715	SSC-AF-00	2.123	1383.9	(M-H)-
1716	SSC-AF-00	2.132	1397.7	(M-H)-
1717	SSC-AF-00	2.187	1354.8	(M-H)-
1718	SSC-AF-00	2.104	1465.0	(M-H)-
1719	SSC-AF-00	2.201	1427.9	(M-H)-
1720	SSC-FA-03	1.833	1383.7	(M-H)-
1721	SSC-FA-03	1.701	1359.5	(M-H)-
1722	SSC-AF-00	2.235	1440.0	(M-H)-
1723	SSC-AF-00	2.232	1440.0	(M-H)-
1724	SSC-FA-03	1.811	1391.9	(M-H)-
1725	SSC-AF-00	2.111	1421.8	(M-H)-
1726	SSC-FA-03	2.004	1452.0	(M-H)-
1727	SSC-AF-00	2.164	1447.7	(M-H)-
1728	SSC-FA-03	1.808	1385.9	(M-H)-
1729	SSC-AF-00	2.149	1399.9	(M-H)-

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1730	SSC-AF-00	2.083	1292.5	(M-H)-
1731	SSC-AF-00	2.139	1413.9	(M-H)-
1732	SSC-FA-03	1.711	1284.4	(M-H)-
1733	SSC-FA-03	2.021	1342.7	(M-H)-
1734	SSC-FA-03	1.832	1487.5	(M-H)-
1735	SSC-AF-00	2.269	1454.0	(M-H)-
1736	SSC-FA-03	2.052	1455.8	(M-H)-
1737	SSC-AF-00	2.101	1371.8	(M-H)-
1738	SSC-AF-00	2.117	1399.8	(M-H)-
1739	SSC-FA-03	1.901	1412.0	(M-H)-
1740	SSC-AF-00	2.240	1439.9	(M-H)-
1741	SSC-AF-00	2.133	1385.9	(M-H)-
1742	SSC-AF-00	2.129	1298.9	(M-H)-
1743	SSC-FA-03	1.871	1371.6	(M-H)-
1744	SSC-FA-03	2.020	1465.9	(M-H)-
1745	SSC-AF-00	2.151	1507.0	(M-H)-
1746	SSC-FA-03	2.087	1451.8	(M-H)-
1747	SSC-FA-03	1.951	1362.9	(M-H)-
1748	SSC-FA-03	1.865	1444.0	(M-H)-
1749	SSC-FA-03	1.745	1393.8	(M-H)-
1750	SSC-AF-00	2.141	1362.6	(M-H)-
1751	SSC-FA-03	1.873	1401.5	(M+H)+
1752	SSC-FA-03	1.764	1357.8	(M-H)-
1753	SSC-FA-03	1.787	1377.6	(M-H)-
1754	SSC-FA-03	1.972	1425.9	(M-H)-
1755	SSC-AF-00	2.084	1383.9	(M-H)-
1756	SSC-AF-00	2.076	1419.9	(M-H)-
1757	SSC-FA-03	1.937	1425.8	(M-H)-
1758	SSC-FA-03	1.731	1413.9	(M-H)-
1759	SSC-FA-03	2.056	1452.0	(M-H)-
1760	SSC-AF-00	2.148	1397.9	(M-H)-
1761	SSC-AF-00	2.077	1419.9	(M-H)-
1762	SSC-AF-00	2.081	1407.7	(M-H)-
1763	SSC-FA-03	1.920	1441.5	(M-H)-
1764	SSC-FA-03	1.889	1439.9	(M-H)-
1765	SSC-AF-00	2.135	1499.7	(M-H)-
1766	SSC-AF-00	2.211	1453.9	(M-H)-
1767	SSC-AF-00	2.169	1412.0	(M-H)-
1768	SSC-FA-03	1.751	1399.8	(M-H)-
1769	SSC-AF-00	2.079	1407.8	(M-H)-
1770	SSC-AF-00	2.196	1411.9	(M-H)-
1771	SSC-FA-03	1.919	1429.8	(M-H)-
1772	SSC-AF-00	2.152	1459.6	(M-H)-
1773	SSC-AF-00	2.165	1300.5	(M-H)-
1774	SSC-AF-00	2.113	1310.9	(M-H)-
1775	SSC-AF-00	2.183	1412.0	(M-H)-
1776	SSC-FA-03	2.048	1453.8	(M-H)-
1777	SSC-AF-00	2.125	1411.8	(M-H)-
1778	SSC-FA-03	1.737	1268.4	(M+H)+
1779	SSC-FA-03	1.761	1393.8	(M-H)-
1780	SSC-FA-03	1.812	1383.9	(M-H)-
1781	SSC-FA-03	1.899	1425.8	(M-H)-
1782	SSC-AF-00	2.135	1436.0	(M-H)-
1783	SSC-AF-00	2.133	1282.5	(M+H)+

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1784	SSC-FA-03	1.923	1300.6	(M-H)-
1785	SSC-AF-00	2.136	1459.8	(M-H)-
1786	SSC-FA-03	2.016	1453.9	(M-H)-
1787	SSC-FA-03	2.020	1451.8	(M-H)-
1788	SSC-FA-03	1.741	1399.5	(M-H)-
1789	SSC-AF-00	2.183	1346.9	(M-H)-
1790	SSC-FA-03	1.807	1407.8	(M-H)-
1791	SSC-AF-00	2.157	1411.9	(M-H)-
1792	SSC-AF-00	2.100	1324.5	(M-H)-
1793	SSC-FA-03	1.912	1350.6	(M-H)-
1794	SSC-FA-03	1.845	1411.9	(M-H)-
1795	SSC-AF-00	2.188	1474.0	(M-H)-
1796	SSC-FA-03	1.971	1423.9	(M-H)-
1797	SSC-AF-00	2.132	1447.7	(M-H)-
1798	SSC-FA-03	2.017	1425.9	(M-H)-
1799	SSC-AF-00	2.161	1413.9	(M-H)-
1800	SSC-AF-00	2.168	1328.5	(M-H)-
1801	SSC-FA-03	1.836	1322.9	(M-H)-
1802	SSC-FA-03	1.952	1397.6	(M-H)-
1803	SSC-AF-00	2.120	1385.9	(M-H)-
1804	SSC-AF-00	2.157	1447.9	(M-H)-
1805	SSC-FA-03	1.923	1415.9	(M-H)-
1806	SSC-FA-03	1.801	1391.8	(M-H)-
1807	SSC-FA-03	2.015	1425.9	(M-H)-
1808	SSC-FA-03	1.880	1301.0	(M-H)-
1809	SSC-FA-03	1.856	1336.9	(M-H)-
1810	SSC-AF-00	2.116	1460.8	(M-H)-
1811	SSC-AF-00	2.172	1439.8	(M-H)-
1812	SSC-AF-00	2.079	1359.5	(M-H)-
1813	SSC-AF-00	2.228	1368.9	(M-H)-
1814	SSC-AF-00	2.131	1399.9	(M-H)-
1815	SSC-FA-03	1.940	1413.8	(M-H)-
1816	SSC-AF-00	2.105	1409.7	(M-H)-
1817	SSC-AF-00	2.179	1411.7	(M-H)-
1818	SSC-AF-00	2.124	1411.8	(M-H)-
1819	SSC-FA-03	1.936	1439.7	(M-H)-
1820	SSC-AF-00	2.251	1465.8	(M-H)-
1821	SSC-AF-00	2.205	1425.9	(M-H)-
1822	SSC-FA-03	1.885	1424.0	(M-H)-
1823	SSC-FA-03	1.972	1426.0	(M-H)-
1824	SSC-FA-03	2.063	1451.9	(M-H)-
1825	SSC-FA-03	1.843	1397.5	(M-H)-
1826	SSC-AF-00	2.231	1439.8	(M-H)-
1827	SSC-FA-03	1.809	1383.9	(M-H)-
1828	SSC-AF-00	2.111	1434.0	(M-H)-
1829	SSC-FA-03	1.900	1385.9	(M-H)-
1830	SSC-FA-03	1.992	1414.0	(M-H)-
1831	SSC-FA-03	1.935	1441.9	(M-H)-
1832	SSC-FA-03	1.955	1399.9	(M-H)-
1833	SSC-AF-00	2.212	1439.9	(M-H)-
1834	SSC-FA-03	1.627	1448.8	(M-H)-
1835	SSC-AF-00	2.236	1451.9	(M-H)-
1836	SSC-FA-03	1.779	1381.6	(M-H)-
1837	SSC-FA-03	1.760	1399.5	(M-H)-

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1838	SSC-FA-03	2.095	1465.6	(M-H)-
1839	SSC-AF-00	2.121	1403.9	(M-H)-
1840	SSC-AF-00	2.101	1445.9	(M-H)-
1841	SSC-AF-00	2.136	1425.8	(M-H)-
1842	SSC-AF-00	2.085	1407.9	(M-H)-
1843	SSC-AF-00	2.163	1425.9	(M-H)-
1844	SSC-AF-00	2.091	1365.9	(M-H)-
1845	SSC-AF-00	2.176	1411.9	(M-H)-
1846	SSC-AF-00	2.196	1413.6	(M-H)-
1847	SSC-FA-03	1.800	1399.8	(M-H)-
1848	SSC-AF-00	2.071	1387.9	(M-H)-
1849	SSC-AF-00	2.201	1407.8	(M-H)-
1850	SSC-FA-03	1.904	1433.7	(M-H)-
1851	SSC-FA-03	1.948	1360.9	(M-H)-
1852	SSC-AF-00	2.137	1460.0	(M-H)-
1853	SSC-AF-00	2.099	1409.5	(M-H)-
1854	SSC-FA-03	1.911	1399.5	(M-H)-
1855	SSC-FA-03	1.957	1455.8	(M-H)-
1856	SSC-AF-00	2.148	1336.6	(M-H)-
1857	SSC-FA-03	1.877	1429.7	(M+H)+
1858	SSC-AF-00	2.131	1399.9	(M-H)-
1859	SSC-FA-03	1.985	1439.8	(M-H)-
1860	SSC-AF-00	2.223	1451.8	(M-H)-
1861	SSC-AF-00	2.259	1454.0	(M-H)-
1862	SSC-FA-03	1.980	1424.0	(M-H)-
1863	SSC-FA-03	1.953	1425.8	(M-H)-
1864	SSC-AF-00	2.187	1451.5	(M-H)-
1865	SSC-AF-00	2.097	1373.9	(M-H)-
1866	SSC-FA-03	1.737	1420.0	(M-H)-
1867	SSC-AF-00	2.024	1367.8	(M-H)-
1868	SSC-AF-00	2.172	1437.8	(M-H)-
1869	SSC-FA-03	1.871	1475.8	(M-H)-
1870	SSC-AF-00	2.140	1410.0	(M-H)-
1871	SSC-AF-00	2.101	1435.7	(M-H)-
1872	SSC-FA-03	1.817	1449.6	(M-H)-
1873	SSC-A-FA-01	6.407	1549.7	(M-H)-
1874	SSC-A-AF-01	8.385	1427.0	(M-H)-
1875	SSC-AF-00	2.139	1428.0	(M-H)-
1876	SSC-A-FA-01	6.835	1531.7	(M+H)+
1877	SSC-FA-03	1.836	1425.6	(M-H)-
1878	SSC-A-FA-01	5.625	1467.7	(M+H)+
1879	SSC-FA-03	1.924	1465.6	(M-H)-
1880	SSC-AF-00	2.231	1490.0	(M-H)-
1881	SSC-FA-03	1.537	1491.0	(M-H)-
1882	SSC-A-AF-01	7.781	1546.1	(M-H)-
1883	SSC-A-FA-01	6.135	1364.6	(M+H)+
1884	SSC-AF-00	2.092	1475.7	(M-H)-
1885	SSC-A-AF-01	7.835	1487.7	(M-H)-
1886	SSC-FA-03	1.516	1486.8	(M-H)-
1887	SSC-A-FA-01	6.040	1473.7	(M+H)+
1888	SSC-A-FA-01	6.519	1598.0	(M-H)-
1889	SSC-A-FA-01	5.489	1431.6	(M+H)+
1890	SSC-AF-00	2.101	1459.7	(M-H)-
1891	SSC-A-AF-01	8.248	1380.6	(M-H)-

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1892	SSC-AF-00	2.144	1490.8	(M-H)-
1893	SSC-A-FA-01	5.875	1509.7	(M+H)+
1894	SSC-FA-03	1.919	1411.8	(M-H)-
1895	SSC-A-FA-01	6.648	1513.8	(M-H)-
1896	SSC-AF-00	2.049	1389.9	(M-H)-
1897	SSC-AF-00	2.061	1460.8	(M-H)-
1898	SSC-FA-03	1.879	1459.8	(M-H)-
1899	SSC-A-AF-01	8.316	1432.5	(M-H)-
1900	SSC-FA-03	1.807	1443.6	(M-H)-
1901	SSC-AF-00	2.169	1440.0	(M-H)-
1902	SSC-A-FA-01	6.504	1555.9	(M-H)-
1903	SSC-A-FA-01	5.531	1461.6	(M+H)+
1904	SSC-AF-00	2.080	1421.7	(M-H)-
1905	SSC-FA-03	1.801	1405.8	(M-H)-
1906	SSC-AF-00	2.156	1439.8	(M-H)-
1907	SSC-FA-03	1.956	1463.9	(M-H)-
1908	SSC-FA-03	1.877	1427.8	(M-H)-
1909	SSC-A-AF-01	7.932	1471.6	(M-H)-
1910	SSC-A-FA-01	6.503	1597.8	(M-H)-
1911	SSC-FA-03	1.779	1466.8	(M-H)-
1912	SSC-A-FA-01	6.449	1378.7	(M+H)+
1913	SSC-AF-00	2.131	1476.8	(M-H)-
1914	SSC-A-FA-01	5.473	1450.0	(M-H)-
1915	SSC-FA-03	1.841	1413.6	(M-H)-
1916	SSC-FA-03	1.868	1439.8	(M-H)-
1917	SSC-FA-03	1.500	1436.9	(M-H)-
1918	SSC-A-AF-01	8.237	1436.6	(M+H)+
1919	SSC-A-FA-01	6.120	1392.6	(M+H)+
1920	SSC-A-FA-01	5.977	1515.6	(M+H)+
1921	SSC-FA-03	1.852	1470.8	(M-H)-
1922	SSC-A-FA-01	5.559	1459.9	(M-H)-
1923	SSC-FA-03	1.849	1427.8	(M-H)-
1924	SSC-FA-03	1.965	1485.8	(M-H)-
1925	SSC-FA-03	1.912	1411.8	(M-H)-
1926	SSC-AF-00	2.191	1526.0	(M-H)-
1927	SSC-A-FA-01	5.764	1497.1	(M-H)-
1928	SSC-FA-03	1.923	1453.6	(M-H)-
1929	SSC-FA-03	1.745	1373.9	(M-H)-
1930	SSC-AF-00	2.139	1522.0	(M-H)-
1931	SSC-FA-03	1.831	1383.9	(M-H)-
1932	SSC-FA-03	1.904	1529.8	(M-H)-
1933	SSC-FA-03	1.924	1453.8	(M-H)-
1934	SSC-FA-03	1.796	1401.9	(M-H)-
1935	SSC-A-AF-01	7.776	1501.9	(M-H)-
1936	SSC-FA-03	1.913	1454.0	(M-H)-
1937	SSC-AF-00	2.104	1479.0	(M-H)-
1938	SSC-AF-00	2.169	1441.8	(M-H)-
1939	SSC-AF-00	2.141	1391.6	(M-H)-
1940	SSC-AF-00	2.163	1434.2	(M-H)-
1941	SSC-AF-00	2.135	1373.6	(M-H)-
1942	SSC-A-FA-01	6.349	1525.6	(M+H)+
1943	SSC-A-FA-01	6.147	1507.5	(M-H)-
1944	SSC-A-FA-01	5.992	1557.6	(M+H)+
1945	SSC-A-FA-01	6.043	1515.6	(M+H)+

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1946	SSC-AF-00	2.117	1462.8	(M-H)-
1947	SSC-FA-03	1.851	1408.2	(M-H)-
1948	SSC-FA-03	1.847	1503.9	(M-H)-
1949	SSC-FA-03	1.733	1403.5	(M-H)-
1950	SSC-A-AF-02	7.981	1399.8	(M-H)-
1951	SSC-A-AF-01	7.521	1501.9	(M-H)-
1952	SSC-A-FA-01	6.000	1492.0	(M-H)-
1953	SSC-A-AF-01	7.695	1555.6	(M-H)-
1954	SSC-FA-03	1.836	1427.8	(M-H)-
1955	SSC-AF-00	2.204	1546.8	(M-H)-
1956	SSC-FA-03	1.741	1415.8	(M-H)-
1957	SSC-FA-03	1.908	1452.0	(M-H)-
1958	SSC-AF-00	2.145	1397.6	(M-H)-
1959	SSC-A-AF-01	7.092	1454.7	(M-H)-
1960	SSC-A-FA-01	5.577	1465.6	(M-H)-
1961	SSC-A-FA-01	4.977	1359.6	(M+H)+
1962	SSC-FA-03	1.501	1472.9	(M-H)-
1963	SSC-AF-00	2.123	1448.0	(M-H)-
1964	SSC-A-FA-01	6.416	1549.6	(M-H)-
1965	SSC-FA-03	1.860	1426.1	(M-H)-
1966	SSC-FA-03	1.760	1418.0	(M-H)-
1967	SSC-A-FA-01	5.724	1360.5	(M-H)-
1968	SSC-AF-00	2.148	1358.0	(M-H)-
1969	SSC-FA-03	1.895	1411.8	(M-H)-
1970	SSC-A-AF-01	8.021	1556.1	(M-H)-
1971	SSC-AF-00	2.109	1429.7	(M-H)-
1972	SSC-AF-00	2.107	1489.9	(M-H)-
1973	SSC-AF-00	2.045	1432.7	(M-H)-
1974	SSC-A-AF-01	8.269	1392.7	(M-H)-
1975	SSC-AF-00	2.128	1397.6	(M-H)-
1976	SSC-FA-03	1.905	1454.0	(M-H)-
1977	SSC-FA-03	1.941	1512.0	(M-H)-
1978	SSC-AF-00	2.131	1487.9	(M-H)-
1979	SSC-AF-00	2.131	1415.8	(M-H)-
1980	SSC-FA-03	1.871	1542.8	(M-H)-
1981	SSC-A-FA-01	5.297	1456.6	(M+H)+
1982	SSC-FA-03	1.548	1464.8	(M-H)-
1983	SSC-FA-03	1.873	1515.9	(M-H)-
1984	SSC-AF-00	2.116	1473.7	(M-H)-
1985	SSC-AF-00	2.085	1486.9	(M-H)-
1986	SSC-A-FA-01	5.824	1505.6	(M+H)+
1987	SSC-A-FA-01	6.361	1545.7	(M+H)+
1988	SSC-AF-00	2.160	1423.8	(M-H)-
1989	SSC-A-FA-01	6.744	1512.1	(M-H)-
1990	SSC-FA-03	1.896	1485.6	(M-H)-
1991	SSC-A-AF-01	7.800	1501.7	(M-H)-
1992	SSC-A-FA-01	6.268	1527.6	(M+H)+
1993	SSC-FA-03	1.841	1501.9	(M-H)-
1994	SSC-FA-03	1.840	1461.8	(M-H)-
1995	SSC-A-AF-01	8.312	1379.0	(M-H)-
1996	SSC-AF-00	2.148	1427.8	(M-H)-
1997	SSC-A-AF-01	7.956	1469.6	(M-H)-
1998	SSC-AF-00	2.115	1413.9	(M-H)-
1999	SSC-FA-03	1.789	1399.5	(M-H)-

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2000	SSC-A-FA-01	5.895	1509.5	(M+H)+
2001	SSC-FA-03	1.908	1411.8	(M-H)-
2002	SSC-A-AF-01	7.488	1496.8	(M-H)-
2003	SSC-A-AF-01	7.715	1362.6	(M-H)-
2004	SSC-FA-03	1.835	1419.9	(M-H)-
2005	SSC-FA-03	1.775	1387.6	(M-H)-
2006	SSC-FA-03	1.808	1401.6	(M-H)-
2007	SSC-A-FA-02	6.119	1465.7	(M+H)+
2008	SSC-A-FA-02	5.992	1443.7	(M+H)+
2009	SSC-FA-03	1.867	1298.5	(M-H)-
2010	SSC-AF-00	2.117	1272.9	(M-H)-
2011	SSC-A-FA-02	5.859	1463.5	(M-H)-
2012	SSC-AF-00	2.199	1300.9	(M-H)-
2013	SSC-FA-03	1.796	1284.5	(M-H)-
2014	SSC-FA-03	2.105	1300.5	(M-H)-
2015	SSC-FA-03	2.127	1368.7	(M-H)-
2016	SSC-FA-03	2.021	1344.9	(M-H)-
2017	SSC-FA-03	2.012	1328.9	(M-H)-
2018	SSC-AF-00	2.241	1328.6	(M-H)-
2019	SSC-FA-03	2.019	1362.9	(M-H)-
2020	SSC-A-FA-02	5.791	1457.6	(M-H)-
2021	SSC-A-AF-01	8.403	1560.9	(M-H)-
2022	SSC-A-AF-01	8.377	1546.9	(M-H)-
2023	SSC-A-AF-01	7.795	1487.9	(M-H)-
2024	SSC-A-FA-01	7.003	1526.0	(M-H)-
2025	SSC-A-FA-01	6.751	1501.8	(M-H)-
2026	SSC-A-AF-01	8.057	1491.0	(M-H)-
2027	SSC-A-FA-01	5.683	1396.6	(M+H)+
2028	SSC-A-FA-01	5.761	1477.8	(M+H)+
2029	SSC-A-AF-01	8.036	1504.9	(M-H)-
2030	SSC-AF-00	2.200	1495.9	(M-H)-
2031	SSC-FA-03	1.979	1469.8	(M-H)-
2032	SSC-A-AF-01	8.084	1504.9	(M-H)-
2033	SSC-A-AF-01	7.992	1491.0	(M-H)-
2034	SSC-A-FA-01	5.313	1485.8	(M+H)+
2035	SSC-FA-03	2.117	1529.9	(M-H)-
2036	SSC-A-FA-01	6.809	1508.0	(M-H)-
2037	SSC-A-FA-01	6.308	1443.9	(M-H)-
2038	SSC-A-FA-01	6.261	1528.8	(M-H)-
2039	SSC-A-AF-01	7.985	1381.7	(M+H)+
2040	SSC-A-AF-01	7.727	1345.6	(M-H)-
2041	SSC-A-AF-01	7.716	1381.8	(M+H)+
2042	SSC-A-AF-01	7.679	1333.7	(M+H)+
2043	SSC-A-AF-01	7.745	1347.7	(M+H)+
2044	SSC-A-AF-01	7.796	1347.7	(M+H)+
2045	SSC-A-FA-01	5.783	1347.7	(M+H)+
2046	SSC-A-FA-01	6.255	1483.8	(M-H)-
2047	SSC-A-AF-01	8.128	1499.8	(M+H)+
2048	SSC-AF-00	2.244	1525.9	(M-H)-
2049	SSC-A-FA-01	6.192	1486.1	(M-H)-
2050	SQDAA05	0.89	1595.3	(M-H)-
2051	SSC-A-AF-01	8.191	1485.7	(M+H)+
2052	SSC-A-FA-01	6.256	1514.7	(M+H)+
2053	SSC-AF-00	2.245	1524.1	(M-H)-

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2054	SSC-A-AF-01	8.000	1511.1	(M-H)-
2055	SSC-A-AF-01	7.879	1379.8	(M+H)+
2056	SQDFA50	1.10	1597.5	(M-H)-
2057	SSC-AF-00	2.235	1467.7	(M-H)-
2058	SSC-AF-00	2.009	1416.1	(M-H)-
2059	SSC-AF-00	2.267	1397.7	(M-H)-
2060	SSC-FA-03	1.748	1401.0	(M-H)-
2061	SSC-AF-00	2.119	1353.6	(M-H)-
2062	SSC-FA-03	2.067	1421.6	(M-H)-
2063	SSC-AF-00	2.155	1389.6	(M-H)-
2064	SSC-FA-03	1.881	1403.1	(M-H)-
2065	SSC-FA-03	1.908	1403.2	(M-H)-
2066	SSC-FA-03	2.188	1435.6	(M-H)-
2067	SSC-FA-03	2.003	1451.7	(M-H)-
2068	SSC-FA-03	1.893	1357.7	(M-H)-
2069	SSC-AF-00	2.140	1419.0	(M-H)-
2070	SSC-AF-00	2.077	1401.2	(M-H)-
2071	SSC-FA-03	1.756	1350.5	(M+H)+
2072	SSC-AF-00	2.131	1443.0	(M-H)-
2073	SSC-FA-03	1.957	1395.7	(M-H)-
2074	SSC-FA-03	1.977	1430.0	(M-H)-
2075	SSC-FA-03	1.885	1388.8	(M-H)-
2076	SSC-FA-03	1.881	1434.0	(M-H)-
2077	SSC-AF-00	2.091	1403.1	(M+H)+
2078	SSC-AF-00	2.111	1418.6	(M-H)-
2079	SSC-FA-03	1.927	1381.8	(M-H)-
2080	SSC-AF-00	2.169	1448.0	(M-H)-
2081	SSC-AF-00	2.193	1393.8	(M-H)-
2082	SSC-AF-00	2.277	1437.6	(M+H)+
2083	SSC-FA-03	2.037	1395.8	(M-H)-
2084	SSC-FA-03	1.755	1381.0	(M-H)-
2085	SSC-AF-00	2.143	1419.7	(M+H)+
2086	SQDFA05	1.04	1306.7	(M+H)+
2087	SQDFA05	1.01	1308.7	(M+H)+
2088	SQDFA05	1.07	1356.7	(M+H)+
2089	SQDFA05	1.00	1290.7	(M+H)+
2090	SQDFA05	1.00	1308.7	(M+H)+
2091	SQDFA05	1.04	1344.7	(M+H)+
2092	SQDFA05	1.02	1306.7	(M+H)+
2093	SQDFA05	1.04	1340.6	(M+H)+
2094	SQDFA05	1.03	1306.7	(M+H)+
2095	SQDFA05	1.04	1322.7	(M+H)+
2096	SSC-TFA-07	1.363	1407.7	(M+H)+
2097	SSC-A-FA-01	5.915	1497.1	(M-H)-
2098	SSC-A-FA-01	5.805	1576.8	(M+H)+
2099	SSC-A-AF-01	7.441	1521.8	(M-H)-
2100	SSC-A-FA-01	5.575	1494.6	(M+H)+
2101	SSC-A-FA-01	5.523	1523.6	(M+H)+
2102	SSC-A-FA-01	5.717	1484.7	(M+H)+
2103	SSC-A-FA-01	5.472	1540.9	(M+H)+
2104	SSC-A-AF-01	7.816	1553.0	(M-H)-
2105	SSC-A-AF-01	8.048	1510.9	(M-H)-
2106	SSC-A-AF-01	7.720	1472.7	(M+H)+
2107	SSC-A-FA-01	5.476	1570.7	(M+H)+

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2108	SSC-A-FA-01	5.508	1528.7	(M+H)+
2109	SSC-A-FA-01	5.720	1513.1	(M-H)-
2110	SSC-A-FA-01	5.288	1535.1	(M-H)-
2111	SSC-A-FA-01	5.409	1512.8	(M-H)-
2112	SSC-A-FA-01	5.979	1568.7	(M+H)+
2113	SSC-AF-00	2.089	1452.9	(M-H)-
2114	SSC-FA-03	1.861	1483.8	(M-H)-
2115	SSC-AF-00	2.080	1452.9	(M-H)-
2116	SSC-TFA-07	1.576	1394.8	(M+H)+
2117	SSC-FA-03	1.961	1500.0	(M-H)-
2118	SSC-TFA-07	1.527	1443.8	(M+H)+
2119	SSC-FA-03	2.023	1520.0	(M-H)-
2120	SSC-FA-03	1.819	1546.9	(M-H)-
2121	SSC-AF-00	2.199	1547.0	(M-H)-
2122	SSC-FA-03	1.927	1499.9	(M-H)-
2123	SSC-FA-03	2.116	1519.9	(M-H)-
2124	SSC-FA-03	2.105	1552.0	(M-H)-
2125	SSC-TFA-07	1.640	1519.8	(M+H)+
2126	SSC-TFA-07	1.704	1539.8	(M+H)+
2127	SSC-TFA-07	1.580	1443.8	(M+H)+
2128	SSC-TFA-07	1.581	1571.9	(M+H)+
2129	SSC-TFA-07	1.700	1539.9	(M+H)+
2130	SSC-TFA-07	1.640	1519.9	(M+H)+
2131	SSC-TFA-07	1.588	1535.9	(M+H)+
2132	SSC-TFA-07	1.696	1539.9	(M+H)+
2133	SSC-TFA-07	1.640	1540.0	(M+H)+
2134	SSC-TFA-07	1.640	1539.7	(M+H)+
2135	SSC-TFA-07	1.611	1571.9	(M+H)+
2136	SSC-TFA-07	1.637	1535.9	(M+H)+
2137	SSC-TFA-07	1.692	1519.8	(M+H)+
2138	SSC-TFA-07	1.635	1540.0	(M+H)+
2139	SSC-TFA-07	1.632	1519.9	(M+H)+
2140	SSC-TFA-07	1.700	1519.9	(M+H)+
2141	SSC-TFA-07	1.704	1519.9	(M+H)+
2142	SSC-AF-00	2.084	1339.6	(M-H)-
2143	SSC-AF-00	2.133	1308.4	(M-H)-
2144	SSC-AF-00	2.069	1379.5	(M+H)+
2145	SSC-FA-03	1.812	1296.5	(M-H)-
2146	SSC-FA-03	1.861	1411.5	(M-H)-
2147	SSC-FA-03	1.873	1411.5	(M-H)-
2148	SSC-FA-03	1.752	1280.5	(M-H)-
2149	SSC-FA-03	1.893	1411.7	(M-H)-
2150	SSC-FA-03	1.851	1395.5	(M+H)+
2151	SSC-FA-03	1.911	1405.9	(M-H)-
2152	SSC-A-FA-01	5.337	1302.6	(M+H)+
2153	SSC-A-AF-01	7.408	1288.7	(M-H)-
2154	SSC-A-FA-01	4.595	1262.5	(M+H)+
2155	SSC-A-AF-01	7.603	1314.9	(M-H)-
2156	SSC-A-FA-01	5.383	1300.7	(M-H)-
2157	SSC-A-AF-01	7.243	1286.9	(M-H)-
2158	SSC-A-FA-01	5.564	1316.6	(M+H)+
2159	SSC-A-AF-01	7.513	1318.6	(M+H)+
2160	SSC-A-FA-01	5.204	1290.6	(M+H)+
2161	SSC-A-FA-02	6.656	1469.9	(M-H)-

[5150]

2162	SSC-A-FA-02	6.215	1455.6	(M-H)-
2163	SSC-A-AF-02	8.011	1477.9	(M-H)-
2164	SSC-A-FA-02	6.060	1429.8	(M-H)-
2165	SSC-A-AF-02	8.325	1519.9	(M-H)-
2166	SSC-A-FA-02	6.292	1479.6	(M+H)+
2167	SSC-A-FA-02	6.045	1471.8	(M-H)-
2168	SSC-AF-00	2.245	1471.9	(M-H)-
2169	SSC-FA-03	2.100	1529.6	(M-H)-
2170	SSC-AF-00	2.192	1537.9	(M-H)-
2171	SSC-AF-00	2.287	1533.7	(M-H)-
2172	SQDFA05long	1.480	1307.1	(M+H)+
2173	SQDFA05long	1.160	1303.1	(M+H)+
2174	SQDFA05long	1.100	1420.3	(M+H)+
2175	SQDFA05long	1.640	1434.3	(M+H)+
2176	SQDFA05long	1.880	1506.4	(M+H)+
2177	SQDFA05long	1.550	1468.3	(M+H)+
2178	SQDFA05long	1.430	1430.3	(M+H)+
2179	SQDFA05long	1.170	1416.3	(M+H)+
2180	SQDFA05	0.820	1528.3	(M+H)+
2181	SQDFA05	0.770	1485.2	(M+H)+
2182	SQDFA05long	2.420	1441.2	(M+H)+
2183	SQDFA05long	2.550	1475.2	(M+H)+
2184	SQDAA50	0.800	1511.7	(M-H)-
2185	SQDFA05long	2.730	1489.2	(M+H)+
2186	SQDFA05long	2.770	1473.3	(M+H)+

[5151] 实施例2 药理学实验例

[5152] 使用了AlphaScreen的、Kras与SOS1之间的蛋白质-蛋白质相互作用抑制活性 (KrasG12D-SOS PPI)

[5153] Kras和SOS1之间的蛋白质-蛋白质相互作用抑制活性 (Protein-protein interaction inhibition, PPI) 是使用在大肠杆菌中表达的、纯化后了担载GDP的带生物素标记的人类Kras和带His标记的人类SOS1酶, 通过从键合了镍的供体珠到键合了链霉亲和素的受体珠的能量转移来测定的。本测定利用的是, 通过向供体珠照射680nm的光, 会发生经由单重态氧向受体珠的能量转移, 可检测到来自受体珠的520~620nm的光。由相对于不含测试物质的对照组的抑制率来计算出50%抑制浓度 (IC50值)。

[5154] 各测试化合物的IC50值示于下表中。本发明的环状肽化合物组显示出抑制Kras和SOS之间的蛋白质-蛋白质相互作用。已知通过抑制K-ras和SOS1之间的键合会抑制Kras下游的信号传导。因此, 也教导了本发明的化合物具有细胞增殖抑制活性。

[5155] [表23]

[5156]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1	0.0059
2	0.015
3	0.31
4	0.013
5	0.00099
6	0.013
7	0.018
8	0.075
9	0.0015
10	0.018
11	0.0015
12	0.24
13	0.038
14	0.11
15	0.0033
16	0.00070
17	0.030
18	0.23
19	0.050
20	0.00076
21	0.25
22	0.11
23	0.0027
24	0.025
25	0.15
26	0.0043
27	0.0033
28	0.16
29	0.32
30	0.0046
31	0.38
32	0.020
33	0.0069
34	0.074
35	0.0021
36	0.0047
37	0.017
38	0.16
39	0.011
40	0.00096
41	0.011
42	0.19
43	0.031
44	0.0011
45	0.084

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
46	0.12
47	0.0015
48	0.00097
49	0.012
50	0.028
51	0.090
52	0.00066
53	0.12
54	0.0019
55	0.00077
56	0.0023
57	0.016
58	0.028
59	0.036
60	0.0079
61	0.016
62	0.0038
63	0.0037
64	0.13
65	0.24
66	0.0036
67	0.0083
68	0.00058
69	0.0088
70	0.16
71	0.15
72	0.00047
73	0.00033
74	0.0072
75	0.094
76	0.19
77	0.10
78	0.0016
79	0.0093
80	0.0028
81	0.014
82	0.14
83	0.11
84	0.073
85	0.015
86	0.0090
87	0.045
88	0.018
89	0.0019
90	0.0050

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
91	0.0015
92	0.0055
93	0.0069
94	0.0033
95	0.011
96	0.22
97	0.040
98	0.068
99	0.0029
100	0.0074
101	0.16
102	0.011
103	0.022
104	0.028
105	0.0053
106	0.0089
107	0.0040
108	0.0050
109	0.040
110	0.0038
111	0.10
112	0.073
113	0.28
114	0.020
115	0.0060
116	0.14
117	0.021
118	0.0019
119	0.039
120	0.00055
121	0.0054
122	0.0086
123	0.17
124	0.14
125	0.0028
126	0.00050
127	0.00043
128	0.0016
129	0.011
130	0.010
131	0.0033
132	0.00096
133	0.023
134	0.00061
135	0.038

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
136	0.0077
137	0.00076
138	0.044
139	0.0084
140	0.00081
141	0.032
142	0.038
143	0.068
144	0.0011
145	0.025
146	0.0040
147	0.0067
148	0.0018
149	0.051
150	0.0013
151	0.0050
152	0.11
153	0.060
154	0.0048
155	0.0016
156	0.00098
157	0.0075
158	0.010
159	0.0024
160	0.0010
161	0.00082
162	0.23
163	0.0061
164	0.0022
165	0.041
166	0.021
167	0.058
168	0.029
169	0.016
170	0.35
171	0.014
172	0.0040
173	0.00056
174	0.057
175	0.012
176	0.0014
177	0.045
178	0.022
179	0.042
180	0.011

[5157]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
181	0.13
182	0.00098
183	0.026
184	0.32
185	0.17
186	0.048
187	0.0032
188	0.0061
189	0.11
190	0.15
191	0.0034
192	0.022
193	0.42
194	0.027
195	0.0095
196	0.013
197	0.0068
198	0.0085
199	0.036
200	0.013
201	0.00058
202	0.039
203	0.031
204	0.18
205	0.00049
206	0.11
207	0.0030
208	0.12
209	0.0016
210	0.080
211	0.043
212	0.042
213	0.048
214	0.28
215	0.029
216	0.0080
217	0.066
218	0.0019
219	0.073
220	0.0031
221	0.0028
222	0.020
223	0.018
224	0.23
225	0.015

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
226	0.0035
227	0.082
228	0.024
229	0.0067
230	0.039
231	0.12
232	0.020
233	0.066
234	0.0021
235	0.011
236	0.0085
237	0.042
238	0.012
239	0.00077
240	0.14
241	0.018
242	0.027
243	0.00043
244	0.14
245	0.00037
246	0.00030
247	0.0070
248	0.031
249	0.0016
250	0.0098
251	0.0038
252	0.055
253	0.00099
254	0.015
255	0.0078
256	0.00098
257	0.097
258	0.036
259	0.021
260	0.050
261	0.052
262	0.043
263	0.0029
264	0.0045
265	0.28
266	0.0046
267	0.13
268	0.018
269	0.0034
270	0.00067

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
271	0.065
272	0.00052
273	0.036
274	0.00082
275	0.046
276	0.00076
277	0.0051
278	0.025
279	0.00099
280	0.024
281	0.0078
282	0.094
283	0.0068
284	0.071
285	0.052
286	0.096
287	0.0051
288	0.0017
289	0.00030
290	0.16
291	0.055
292	0.00045
293	0.12
294	0.0014
295	0.068
296	0.055
297	0.049
298	0.021
299	0.13
300	0.0095
301	0.00074
302	0.00068
303	0.00068
304	0.087
305	0.17
306	0.044
307	0.0044
308	0.00093
309	0.00075
310	0.096
311	0.0059
312	0.0010
313	0.0042
314	0.0026
315	0.12

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
316	0.0033
317	0.030
318	0.019
319	0.0082
320	0.0099
321	0.011
322	0.031
323	0.14
324	0.38
325	0.014
326	0.00070
327	0.00047
328	0.094
329	0.040
330	0.080
331	0.030
332	0.21
333	0.11
334	0.00050
335	0.067
336	0.093
337	0.016
338	0.22
339	0.00038
340	0.0047
341	0.0029
342	0.00095
343	0.00087
344	0.00083
345	0.058
346	0.011
347	0.027
348	0.0060
349	0.19
350	0.064
351	0.28
352	0.0055
353	0.00069
354	0.0016
355	0.053
356	0.00092
357	0.022
358	0.033
359	0.0032
360	0.0028

[5158]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
361	0.34
362	0.00066
363	0.00065
364	0.0097
365	0.038
366	0.0040
367	0.00060
368	0.0027
369	0.35
370	0.00035
371	0.0013
372	0.13
373	0.33
374	0.0065
375	0.012
376	0.044
377	0.024
378	0.00068
379	0.013
380	0.0056
381	0.0016
382	0.035
383	0.26
384	0.0010
385	0.0047
386	0.010
387	0.0042
388	0.00050
389	0.045
390	0.00077
391	0.00040
392	0.012
393	0.0053
394	0.013
395	0.047
396	0.22
397	0.0023
398	0.12
399	0.0089
400	0.00085
401	0.0036
402	0.026
403	0.0011
404	0.0048
405	0.27

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
406	0.25
407	0.039
408	0.011
409	0.0024
410	0.00048
411	0.00062
412	0.12
413	0.050
414	0.11
415	0.0015
416	0.054
417	0.015
418	0.017
419	0.0024
420	0.0034
421	0.010
422	0.00087
423	0.064
424	0.011
425	0.00057
426	0.0087
427	0.00071
428	0.0091
429	0.099
430	0.039
431	0.25
432	0.0045
433	0.0022
434	0.00052
435	0.25
436	0.16
437	0.00047
438	0.0060
439	0.052
440	0.0029
441	0.00073
442	0.070
443	0.030
444	0.018
445	0.00067
446	0.0018
447	0.014
448	0.091
449	0.030
450	0.0066

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
451	0.010
452	0.080
453	0.017
454	0.0027
455	0.059
456	0.034
457	0.069
458	0.0059
459	0.0095
460	0.0010
461	0.0012
462	0.012
463	0.0044
464	0.13
465	0.055
466	0.0031
467	0.20
468	0.0025
469	0.0036
470	0.0022
471	0.058
472	0.14
473	0.41
474	0.28
475	0.051
476	0.0041
477	0.0043
478	0.0030
479	0.30
480	0.0014
481	0.0020
482	0.17
483	0.017
484	0.11
485	0.16
486	0.0048
487	0.0059
488	0.029
489	0.0081
490	0.24
491	0.00035
492	0.012
493	0.30
494	0.0086
495	0.0032

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
496	0.010
497	0.0043
498	0.049
499	0.085
500	0.0048
501	0.16
502	0.047
503	0.0071
504	0.053
505	0.086
506	0.00068
507	0.00048
508	0.012
509	0.0013
510	0.0040
511	0.090
512	0.15
513	0.046
514	0.014
515	0.00055
516	0.062
517	0.028
518	0.00067
519	0.0020
520	0.017
521	0.071
522	0.0053
523	0.0058
524	0.082
525	0.0023
526	0.0066
527	0.038
528	0.020
529	0.0082
530	0.14
531	0.0016
532	0.00048
533	0.0085
534	0.013
535	0.00065
536	0.23
537	0.082
538	0.11
539	0.19
540	0.15

[5159]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
541	0.0043
542	0.061
543	0.00056
544	0.0022
545	0.0011
546	0.13
547	0.0010
548	0.0016
549	0.0040
550	0.11
551	0.00052
552	0.00063
553	0.027
554	0.0053
555	0.0026
556	0.030
557	0.0044
558	0.0018
559	0.0017
560	0.11
561	0.0034
562	0.00056
563	0.0011
564	0.0096
565	0.055
566	0.16
567	0.0015
568	0.0080
569	0.073
570	0.027
571	0.00083
572	0.039
573	0.010
574	0.0086
575	0.00056
576	0.23
577	0.021
578	0.12
579	0.017
580	0.066
581	0.032
582	0.024
583	0.37
584	0.031
585	0.094

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
586	0.16
587	0.0012
588	0.36
589	0.00049
590	0.0014
591	0.0021
592	0.026
593	0.034
594	0.00054
595	0.29
596	0.034
597	0.011
598	0.30
599	0.012
600	0.0045
601	0.087
602	0.28
603	0.00089
604	0.016
605	0.0090
606	0.0083
607	0.22
608	0.0059
609	0.11
610	0.15
611	0.0033
612	0.12
613	0.50
614	0.024
615	0.22
616	0.0039
617	0.11
618	0.0024
619	0.019
620	0.011
621	0.059
622	0.0017
623	0.0018
624	0.16
625	0.070
626	0.0024
627	0.013
628	0.020
629	0.010
630	0.0017

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
631	0.0010
632	0.073
633	0.12
634	0.26
635	0.19
636	0.0011
637	0.026
638	0.045
639	0.014
640	0.00086
641	0.018
642	0.054
643	0.027
644	0.017
645	0.058
646	0.12
647	0.00058
648	0.0032
649	0.36
650	0.00060
651	0.086
652	0.0043
653	0.044
654	0.11
655	0.0049
656	0.017
657	0.31
658	0.15
659	0.13
660	0.21
661	0.013
662	0.0032
663	0.016
664	0.025
665	0.037
666	0.025
667	0.0051
668	0.0019
669	0.22
670	0.0051
671	0.052
672	0.0025
673	0.011
674	0.0056
675	0.059

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
676	0.031
677	0.0041
678	0.0017
679	0.037
680	0.0099
681	0.0059
682	0.020
683	0.00061
684	0.0019
685	0.13
686	0.17
687	0.016
688	0.0023
689	0.0021
690	0.0018
691	0.0071
692	0.0069
693	0.0016
694	0.014
695	0.0023
696	0.040
697	0.012
698	0.023
699	0.00083
700	0.0050
701	0.00069
702	0.13
703	0.0085
704	0.013
705	0.36
706	0.066
707	0.014
708	0.011
709	0.041
710	0.0044
711	0.035
712	0.0027
713	0.0040
714	0.0023
715	0.0061
716	0.0011
717	0.00086
718	0.039
719	0.0059
720	0.039

[5160]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
721	0.0015
722	0.42
723	0.017
724	0.024
725	0.0078
726	0.0013
727	0.0069
728	0.016
729	0.043
730	0.012
731	0.0035
732	0.0014
733	0.051
734	0.0022
735	0.00044
736	0.037
737	0.11
738	0.015
739	0.036
740	0.011
741	0.086
742	0.017
743	0.040
744	0.0075
745	0.029
746	0.13
747	0.011
748	0.13
749	0.0028
750	0.028
751	0.082
752	0.20
753	0.035
754	0.024
755	0.0056
756	0.00058
757	0.0037
758	0.14
759	0.16
760	0.0052
761	0.00057
762	0.0055
764	0.083
765	0.050

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
766	0.13
767	0.024
768	0.0011
769	0.052
770	0.020
771	0.025
772	0.15
773	0.14
774	0.00055
775	0.0046
776	0.0073
777	0.33
778	0.00070
779	0.16
780	0.021
781	0.060
782	0.021
783	0.0098
784	0.0040
785	0.0035
786	0.0060
787	0.0029
788	0.013
789	0.00061
790	0.0025
791	0.32
792	0.0035
793	0.024
794	0.011
795	0.072
796	0.0093
797	0.019
798	0.059
799	0.0014
800	0.086
801	0.45
802	0.39
803	0.30
804	0.00099
805	0.038
806	0.0011
807	0.00074
808	0.099
809	0.047
810	0.049

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
811	0.059
812	0.036
813	0.069
814	0.00041
815	0.026
816	0.0039
817	0.015
818	0.0012
819	0.053
820	0.00073
821	0.012
822	0.15
823	0.016
824	0.0056
825	0.00035
826	0.11
827	0.0028
828	0.040
829	0.0023
830	0.28
831	0.18
832	0.12
833	0.0091
834	0.057
835	0.00054
836	0.00066
837	0.0060
838	0.010
839	0.22
840	0.0012
841	0.024
842	0.043
843	0.049
844	0.028
845	0.0082
847	0.054
848	0.016
849	0.0019
850	0.024
851	0.027
852	0.19
853	0.00062
854	0.011
855	0.0084

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
856	0.014
857	0.017
858	0.33
859	0.064
860	0.21
861	0.0045
862	0.0027
863	0.0025
864	0.073
865	0.055
866	0.0012
867	0.0034
868	0.0029
869	0.0098
870	0.015
871	0.00078
872	0.0019
873	0.051
874	0.025
875	0.0031
876	0.018
877	0.0025
878	0.32
879	0.036
880	0.0029
881	0.00056
882	0.00047
883	0.049
884	0.063
885	0.0019
886	0.10
887	0.0062
888	0.0039
889	0.070
890	0.00047
891	0.0096
892	0.068
893	0.021
894	0.011
895	0.0084
896	0.0011
897	0.15
898	0.012
899	0.0019
900	0.00084

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化合物 编号	KRAS G12D- SOS PPI IC50(μM)
901	0.035
902	0.14
903	0.024
904	0.0073
905	0.18
906	0.0027
907	0.0014
908	0.039
909	0.020
910	0.0043
911	0.0045
912	0.012
913	0.053
914	0.0011
915	0.040
916	0.042
917	0.0020
918	0.00089
919	0.052
920	0.015
921	0.0011
922	0.23
923	0.23
924	0.13
925	0.36
926	0.00099
927	0.023
928	0.027
929	0.0041
930	0.039
931	0.27
932	0.0054
933	0.083
934	0.034
935	0.0060
936	0.0011
937	0.25
938	0.00069
939	0.0080
940	0.15
941	0.0033
942	0.0010
943	0.00083
944	0.018
945	0.0098

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
946	0.0075
947	0.075
948	0.0031
949	0.0013
950	0.0090
951	0.0079
952	0.12
953	0.18
954	0.0019
955	0.026
956	0.080
957	0.00044
958	0.0021
959	0.0014
960	0.0079
961	0.012
962	0.0078
963	0.013
964	0.011
965	0.00086
966	0.11
967	0.058
968	0.0031
969	0.0020
970	0.25
971	0.016
972	0.33
973	0.0028
974	0.00091
975	0.022
976	0.18
977	0.00033
978	0.17
979	0.037
980	0.0038
981	0.00037
982	0.048
983	0.0018
984	0.025
985	0.042
986	0.025
987	0.00096
988	0.012
989	0.034
990	0.083

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
991	0.076
992	0.18
993	0.016
994	0.011
995	0.0057
996	0.090
997	0.024
998	0.017
999	0.0017
1000	0.0026
1001	0.00044
1002	0.0021
1003	0.0084
1004	0.013
1005	0.0035
1006	0.0063
1007	0.013
1008	0.00076
1009	0.043
1010	0.0043
1011	0.038
1012	0.0012
1013	0.031
1014	0.013
1015	0.018
1016	0.024
1017	0.00088
1018	0.011
1019	0.014
1020	0.051
1021	0.24
1022	0.00042
1023	0.020
1024	0.0019
1025	0.0043
1026	0.00079
1027	0.0082
1029	0.0014
1030	0.0017
1031	0.32
1032	0.060
1033	0.36
1034	0.0017
1035	0.011

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1036	0.0077
1037	0.00066
1038	0.018
1039	0.045
1040	0.014
1041	0.0016
1042	0.00072
1043	0.060
1044	0.055
1045	0.0067
1046	0.0046
1047	0.0063
1048	0.018
1049	0.0037
1050	0.049
1051	0.0029
1052	0.11
1053	0.0067
1054	0.12
1055	0.0022
1056	0.018
1057	0.0012
1058	0.014
1059	0.00064
1060	0.00065
1061	0.014
1062	0.00092
1063	0.043
1064	0.0043
1065	0.070
1066	0.024
1067	0.29
1068	0.12
1069	0.017
1070	0.00091
1071	0.0013
1072	0.0012
1073	0.0021
1074	0.011
1075	0.14
1076	0.019
1077	0.034
1078	0.19
1079	0.015
1080	0.0010

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化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1081	0.025
1082	0.27
1083	0.019
1084	0.053
1085	0.050
1086	0.18
1087	0.015
1088	0.17
1089	0.0016
1090	0.088
1091	0.0010
1092	0.041
1093	0.00073
1094	0.0022
1095	0.046
1096	0.0026
1097	0.23
1098	0.0056
1099	0.00092
1100	0.0063
1101	0.0090
1102	0.16
1103	0.016
1104	0.011
1105	0.021
1106	0.035
1107	0.093
1108	0.011
1109	0.023
1110	0.13
1111	0.041
1112	0.0060
1113	0.41
1114	0.011
1115	0.0025
1116	0.00044
1117	0.0022
1118	0.20
1119	0.18
1120	0.0025
1121	0.0014
1122	0.067
1123	0.18
1124	0.0070
1125	0.0025

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1126	0.25
1127	0.26
1128	0.0021
1129	0.15
1130	0.0044
1131	0.013
1132	0.0013
1133	0.056
1134	0.0060
1135	0.0058
1136	0.070
1137	0.0046
1138	0.067
1139	0.00059
1140	0.0020
1141	0.00097
1142	0.0065
1143	0.00073
1144	0.00049
1145	0.0011
1146	0.0019
1148	0.0012
1149	0.00062
1150	0.00052
1151	0.0052
1152	0.0012
1153	0.0025
1154	0.0024
1155	0.17
1156	0.14
1157	0.0016
1158	0.00052
1159	0.0028
1160	0.00042
1161	0.060
1162	0.00057
1163	0.00046
1164	0.0014
1165	0.00073
1166	0.00047
1167	0.0087
1168	0.10
1169	0.053
1170	0.00054

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1171	0.00099
1172	0.0068
1173	0.00074
1174	0.062
1175	0.00079
1176	0.00080
1177	0.012
1178	0.0010
1179	0.00052
1180	0.00050
1181	0.0060
1182	0.00056
1183	0.00073
1184	0.13
1185	0.011
1186	0.0086
1187	0.099
1188	0.033
1189	0.00074
1190	0.00083
1191	0.0067
1192	0.00039
1193	0.0021
1194	0.00052
1195	0.038
1196	0.00048
1197	0.00060
1198	0.0012
1199	0.00070
1200	0.045
1201	0.00053
1202	0.24
1203	0.0021
1204	0.00044
1205	0.0028
1206	0.00057
1207	0.0027
1208	0.00069
1209	0.00085
1210	0.00074
1211	0.031
1212	0.12
1213	0.017
1214	0.077
1215	0.0018

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1216	0.12
1217	0.0010
1218	0.0049
1219	0.016
1220	0.00064
1221	0.038
1222	0.025
1223	0.0012
1224	0.00067
1225	0.034
1226	0.015
1227	0.0013
1228	0.00059
1229	0.046
1230	0.098
1231	0.00059
1232	0.00047
1233	0.0025
1234	0.0045
1235	0.0055
1236	0.0073
1237	0.00086
1238	0.0099
1239	0.18
1240	0.29
1241	0.00050
1242	0.00052
1243	0.027
1244	0.00063
1245	0.00054
1246	0.055
1247	0.0048
1248	0.00067
1249	0.033
1250	0.00063
1251	0.0026
1252	0.0025
1253	0.00081
1254	0.00054
1255	0.0014
1256	0.0091
1257	0.0065
1258	0.026
1259	0.00049
1260	0.00054

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化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1261	0.00065
1262	0.0013
1263	0.0027
1264	0.00054
1265	0.28
1266	0.0012
1267	0.00036
1268	0.019
1269	0.0010
1270	0.00061
1271	0.00049
1272	0.0020
1273	0.0072
1274	0.0038
1275	0.00065
1276	0.017
1277	0.0067
1278	0.00065
1279	0.016
1280	0.074
1281	0.00042
1282	0.00081
1283	0.00063
1284	0.00069
1285	0.00053
1286	0.024
1287	0.0011
1288	0.031
1289	0.00067
1290	0.00063
1291	0.0054
1292	0.0020
1293	0.00096
1294	0.050
1295	0.00050
1296	0.00059
1297	0.00051
1298	0.028
1299	0.0036
1300	0.094
1301	0.00067
1302	0.00075
1303	0.00072
1304	0.085
1305	0.24

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1306	0.00050
1307	0.0027
1308	0.00065
1309	0.00085
1310	0.00087
1311	0.00051
1312	0.00074
1313	0.065
1314	0.090
1315	0.0010
1316	0.0032
1317	0.00057
1318	0.078
1319	0.00082
1320	0.0014
1321	0.00055
1322	0.00082
1323	0.0043
1324	0.0012
1325	0.00096
1326	0.0051
1327	0.072
1328	0.22
1329	0.0017
1330	0.00062
1331	0.0011
1332	0.023
1333	0.00048
1334	0.0030
1335	0.00049
1336	0.00066
1337	0.00055
1338	0.017
1339	0.00057
1340	0.0012
1341	0.00082
1342	0.00053
1343	0.00061
1344	0.19
1345	0.040
1346	0.00060
1347	0.0013
1348	0.00062
1349	0.15
1350	0.017

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1351	0.00082
1352	0.11
1353	0.011
1354	0.0077
1355	0.0032
1356	0.0011
1357	0.00052
1358	0.019
1359	0.0062
1360	0.00097
1361	0.024
1362	0.00081
1363	0.00057
1364	0.0012
1365	0.0012
1366	0.00063
1367	0.00065
1368	0.00067
1369	0.00055
1370	0.00060
1371	0.0016
1372	0.017
1373	0.0077
1374	0.00054
1375	0.0093
1376	0.00071
1377	0.0058
1378	0.38
1379	0.064
1380	0.016
1381	0.15
1382	0.23
1383	0.13
1384	0.23
1385	0.20
1386	0.0100
1387	0.014
1388	0.010
1389	0.24
1390	0.28
1391	0.065
1392	0.028
1393	0.38
1394	0.13
1395	0.27

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1396	0.016
1397	0.0064
1398	0.0066
1399	0.070
1400	0.21
1401	0.12
1402	0.057
1403	0.032
1404	0.017
1405	0.082
1406	0.16
1407	0.17
1408	0.16
1409	0.17
1410	0.27
1411	0.082
1412	0.31
1413	0.19
1414	0.038
1415	0.034
1416	0.097
1417	0.029
1418	0.11
1419	0.046
1420	0.089
1421	0.032
1422	0.016
1423	0.19
1424	0.20
1425	0.019
1426	0.048
1427	0.25
1428	0.042
1429	0.044
1430	0.40
1431	0.22
1432	0.26
1433	0.029
1434	0.15
1435	0.0074
1436	0.039
1437	0.081
1438	0.036
1439	0.0037
1440	0.016

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化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1441	0.0064
1442	0.28
1443	0.023
1444	0.0088
1445	0.25
1446	0.15
1447	0.10
1448	0.0011
1449	0.014
1450	0.22
1451	0.020
1452	0.038
1453	0.11
1454	0.011
1455	0.030
1456	0.012
1457	0.011
1458	0.0072
1459	0.29
1460	0.13
1461	0.037
1462	0.00079
1463	0.00068
1464	0.19
1465	0.051
1466	0.0010
1467	0.12
1468	0.090
1469	0.23
1470	0.21
1471	0.0017
1472	0.067
1473	0.39
1474	0.24
1475	0.0027
1476	0.046
1477	0.028
1478	0.0030
1479	0.12
1480	0.0089
1481	0.0050
1482	0.088
1483	0.034
1484	0.19
1485	0.00084

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1486	0.00050
1487	0.34
1488	0.26
1489	0.018
1490	0.32
1491	0.0037
1492	0.24
1493	0.10
1494	0.14
1495	0.12
1496	0.0020
1497	0.025
1498	0.0017
1499	0.019
1500	0.0039
1501	0.014
1502	0.024
1503	0.016
1504	0.057
1505	0.22
1506	0.0029
1507	0.024
1508	0.0013
1509	0.023
1510	0.11
1511	0.19
1512	0.0012
1513	0.27
1514	0.0010
1515	0.077
1516	0.34
1517	0.049
1518	0.37
1519	0.12
1520	0.059
1521	0.11
1522	0.090
1523	0.00075
1524	0.0019
1525	0.10
1526	0.10
1527	0.19
1528	0.041
1529	0.011
1530	0.13

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1531	0.23
1532	0.0048
1533	0.068
1534	0.062
1535	0.041
1536	0.021
1537	0.0039
1538	0.11
1539	0.054
1540	0.23
1541	0.0040
1542	0.17
1543	0.16
1544	0.0056
1545	0.042
1546	0.040
1547	0.022
1548	0.14
1549	0.0036
1550	0.019
1551	0.0049
1552	0.061
1553	0.012
1554	0.20
1555	0.0061
1556	0.017
1557	0.0057
1558	0.071
1559	0.028
1560	0.16
1561	0.033
1562	0.0048
1563	0.0062
1564	0.038
1565	0.014
1566	0.020
1567	0.033
1568	0.094
1569	0.016
1570	0.0043
1571	0.0048
1572	0.0098
1573	0.057
1574	0.035
1575	0.045

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1576	0.0051
1577	0.050
1578	0.028
1579	0.0082
1580	0.011
1581	0.23
1582	0.035
1583	0.012
1584	0.0095
1585	0.043
1586	0.059
1587	0.031
1588	0.0041
1589	0.039
1590	0.0032
1591	0.097
1592	0.21
1593	0.14
1594	0.0032
1595	0.015
1596	0.023
1597	0.011
1598	0.0092
1599	0.017
1600	0.31
1601	0.022
1602	0.0063
1603	0.094
1604	0.0058
1605	0.012
1606	0.015
1607	0.028
1608	0.0058
1609	0.0053
1610	0.0067
1611	0.0032
1612	0.39
1613	0.11
1614	0.051
1615	0.040
1616	0.012
1617	0.0027
1618	0.29
1619	0.36
1620	0.0054

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化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1621	0.0072
1622	0.13
1623	0.054
1624	0.092
1625	0.0072
1626	0.0044
1627	0.015
1628	0.067
1629	0.0025
1630	0.0062
1631	0.0050
1632	0.0029
1633	0.050
1634	0.013
1635	0.14
1636	0.011
1637	0.017
1638	0.0073
1639	0.0058
1640	0.0066
1641	0.0083
1642	0.058
1643	0.0072
1644	0.0031
1645	0.0010
1646	0.0046
1647	0.0030
1648	0.010
1649	0.00042
1650	0.0026
1651	0.0049
1652	0.0031
1653	0.00089
1654	0.022
1655	0.085
1656	0.0014
1657	0.0028
1658	0.00055
1659	0.00038
1660	0.016
1661	0.0027
1662	0.00065
1663	0.0016
1664	0.0088
1665	0.019

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1666	0.0011
1667	0.013
1668	0.00085
1669	0.0018
1670	0.0010
1671	0.0011
1672	0.0043
1673	0.0054
1674	0.058
1675	0.0012
1676	0.0016
1677	0.0086
1678	0.026
1679	0.00085
1680	0.00061
1681	0.0031
1682	0.0024
1683	0.052
1684	0.0043
1685	0.00060
1686	0.0015
1687	0.0042
1688	0.024
1689	0.0011
1690	0.097
1691	0.12
1692	0.0035
1693	0.0017
1694	0.00055
1695	0.0080
1696	0.00057
1697	0.11
1698	0.0012
1699	0.0011
1700	0.00066
1701	0.00075
1702	0.031
1703	0.00041
1704	0.0060
1705	0.0098
1706	0.14
1707	0.18
1708	0.010
1709	0.010
1710	0.33

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1711	0.00078
1712	0.0098
1713	0.00049
1714	0.0023
1715	0.0024
1716	0.0079
1717	0.0033
1718	0.00080
1719	0.018
1720	0.00058
1721	0.022
1722	0.0028
1723	0.0036
1724	0.016
1725	0.023
1726	0.00068
1727	0.0012
1728	0.0012
1729	0.00044
1730	0.035
1731	0.0019
1732	0.0055
1733	0.13
1734	0.071
1735	0.0011
1736	0.0043
1737	0.0083
1738	0.011
1739	0.0047
1740	0.00079
1741	0.0038
1742	0.020
1743	0.0013
1744	0.0040
1745	0.0013
1746	0.00089
1747	0.016
1748	0.00061
1749	0.00074
1750	0.0013
1751	0.0073
1752	0.017
1753	0.0025
1754	0.067
1755	0.0079

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1756	0.00054
1757	0.00043
1758	0.0012
1759	0.0027
1760	0.032
1761	0.00041
1762	0.00037
1763	0.0045
1764	0.0032
1765	0.074
1766	0.0036
1767	0.0072
1768	0.14
1769	0.011
1770	0.00071
1771	0.078
1772	0.00075
1773	0.051
1774	0.00084
1775	0.0040
1776	0.024
1777	0.00063
1778	0.0073
1779	0.00052
1780	0.12
1781	0.049
1782	0.0022
1783	0.052
1784	0.011
1785	0.00045
1786	0.00072
1787	0.0011
1788	0.0043
1789	0.0065
1790	0.00070
1791	0.0030
1792	0.00092
1793	0.0019
1794	0.040
1795	0.00099
1796	0.00076
1797	0.0037
1798	0.0010
1799	0.015
1800	0.011

[5166]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1801	0.0029
1802	0.021
1803	0.0053
1804	0.00051
1805	0.00092
1806	0.014
1807	0.00089
1808	0.047
1809	0.0014
1810	0.00065
1811	0.056
1812	0.00056
1813	0.036
1814	0.17
1815	0.0025
1816	0.012
1817	0.0014
1818	0.00040
1819	0.0038
1820	0.014
1821	0.00099
1822	0.050
1823	0.059
1824	0.00075
1825	0.0034
1826	0.099
1827	0.0066
1828	0.0027
1829	0.0015
1830	0.0016
1831	0.071
1832	0.0010
1833	0.0075
1834	0.00081
1835	0.0011
1836	0.00047
1837	0.0020
1838	0.0026
1839	0.055
1840	0.0012
1841	0.0044
1842	0.00066
1843	0.00084
1844	0.017
1845	0.00084

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1846	0.0011
1847	0.00063
1848	0.0014
1849	0.23
1850	0.00060
1851	0.0025
1852	0.00094
1853	0.0089
1854	0.0055
1855	0.34
1856	0.0054
1857	0.019
1858	0.0011
1859	0.015
1860	0.011
1861	0.0013
1862	0.0020
1863	0.010
1864	0.048
1865	0.00043
1866	0.0028
1867	0.00073
1868	0.10
1869	0.00076
1870	0.00074
1871	0.00048
1872	0.00065
1873	0.033
1874	0.40
1875	0.00042
1876	0.098
1877	0.00086
1878	0.0088
1879	0.00066
1880	0.013
1881	0.0014
1882	0.0097
1883	0.065
1884	0.00041
1885	0.032
1886	0.00093
1887	0.18
1888	0.053
1889	0.098
1890	0.00055

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1891	0.23
1892	0.0015
1893	0.014
1894	0.00055
1895	0.36
1896	0.00049
1897	0.0099
1898	0.00093
1899	0.22
1900	0.00099
1901	0.00056
1902	0.054
1903	0.0040
1904	0.00057
1905	0.00033
1906	0.00055
1907	0.0013
1908	0.00065
1909	0.11
1910	0.060
1911	0.00067
1912	0.027
1913	0.0011
1914	0.0077
1915	0.00038
1916	0.00099
1917	0.028
1918	0.28
1919	0.21
1920	0.021
1921	0.00083
1922	0.0031
1923	0.00089
1924	0.0051
1925	0.00055
1926	0.021
1927	0.0033
1928	0.00050
1929	0.00061
1930	0.0036
1931	0.00056
1932	0.0011
1933	0.00059
1934	0.0010
1935	0.011

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1936	0.00068
1937	0.0031
1938	0.00076
1939	0.00071
1940	0.0016
1941	0.0015
1942	0.29
1943	0.0080
1944	0.045
1945	0.018
1946	0.0015
1947	0.0012
1948	0.00054
1949	0.00060
1950	0.0028
1951	0.0099
1952	0.0081
1953	0.051
1954	0.0023
1955	0.0015
1956	0.00076
1957	0.0012
1958	0.00045
1959	0.0052
1960	0.056
1961	0.0018
1962	0.0014
1963	0.00063
1964	0.036
1965	0.00055
1966	0.00092
1967	0.077
1968	0.0012
1969	0.00061
1970	0.052
1971	0.0011
1972	0.00037
1973	0.0071
1974	0.045
1975	0.00051
1976	0.0015
1977	0.00047
1978	0.00051
1979	0.00064
1980	0.0015

[5167]

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
1981	0.0051
1982	0.047
1983	0.00068
1984	0.00038
1985	0.00070
1986	0.011
1987	0.015
1988	0.00069
1989	0.46
1990	0.00043
1991	0.0092
1992	0.28
1993	0.00064
1994	0.00058
1995	0.34
1996	0.00064
1997	0.22
1998	0.00075
1999	0.00082
2000	0.015
2001	0.00048
2002	0.0030
2003	0.0086
2004	0.00033
2005	0.00064
2006	0.00062
2007	0.23
2008	0.14
2009	0.082
2010	0.22
2011	0.017
2012	0.20
2013	0.15
2014	0.34
2015	0.26
2016	0.27
2017	0.35
2018	0.32
2019	0.11
2020	0.27
2021	0.0028
2022	0.0038
2023	0.0017
2024	0.0043
2025	0.0014

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
2026	0.0013
2027	0.11
2028	0.011
2029	0.00083
2030	0.0023
2031	0.00082
2032	0.0012
2033	0.00065
2034	0.0020
2035	0.024
2036	0.0011
2037	0.00058
2038	0.0083
2039	0.018
2040	0.15
2041	0.11
2042	0.070
2043	0.012
2044	0.0079
2045	0.015
2046	0.0037
2047	0.0057
2048	0.0035
2049	0.0040
2050	0.051
2051	0.0025
2052	0.0049
2053	0.010
2054	0.0041
2055	0.027
2056	0.013
2057	0.0011
2058	0.38
2059	0.00096
2060	0.11
2061	0.021
2062	0.0069
2063	0.0088
2064	0.012
2065	0.016
2066	0.063
2067	0.00084
2068	0.0017
2069	0.078
2070	0.018

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
2071	0.0092
2072	0.00042
2073	0.012
2074	0.0027
2075	0.0011
2076	0.0025
2077	0.047
2078	0.011
2079	0.017
2080	0.00033
2081	0.0020
2082	0.041
2083	0.052
2084	0.13
2085	0.0029
2086	0.10
2087	0.13
2088	0.030
2089	0.30
2090	0.38
2091	0.27
2092	0.35
2093	0.037
2094	0.20
2095	0.24
2096	0.019
2097	0.00057
2098	0.0080
2099	0.025
2100	0.015
2101	0.053
2102	0.00092
2103	0.0083
2104	0.010
2105	0.0026
2106	0.0020
2107	0.0048
2108	0.0079
2109	0.0018
2110	0.0098
2111	0.0082
2112	0.011
2113	0.00047
2114	0.11
2115	0.0011

化合物 编号	KRAS G12D- SOS PPI IC50(μM)
2116	0.11
2117	0.00041
2118	0.0032
2119	0.00039
2120	0.0010
2121	0.00056
2122	0.00046
2123	0.0015
2124	0.00091
2125	0.016
2126	0.037
2127	0.0045
2128	0.015
2129	0.046
2130	0.010
2131	0.0098
2132	0.091
2133	0.012
2134	0.0098
2135	0.088
2136	0.039
2137	0.069
2138	0.0086
2139	0.023
2140	0.032
2141	0.072
2142	0.044
2143	0.041
2144	0.0069
2145	0.022
2146	0.0051
2147	0.0080
2148	0.063
2149	0.0040
2150	0.0057
2151	0.0025
2152	0.071
2153	0.0069
2154	0.033
2155	0.028
2156	0.0045
2157	0.0069
2158	0.089
2159	0.0035
2160	0.0038

[5168]

化合物 编号	KRAS G12D- SOS PPI IC50(μ M)
2161	0.48
2162	0.20
2163	0.073
2164	0.30
2165	0.22
2166	0.33
2167	0.38
2168	0.0013
2169	0.0061
2170	0.069
2171	0.12

化合物 编号	KRAS G12D- SOS PPI IC50(μ M)
2172	0.014
2173	0.0060
2174	0.87
2175	0.18
2176	0.12
2177	0.25
2178	0.16
2179	0.54
2180	0.00093
2181	0.0055
2182	0.0036

化合物 编号	KRAS G12D- SOS PPI IC50(μ M)
2183	0.0019
2184	0.0079
2185	0.0024
2186	0.0075

[5169] AsPC-1细胞生长抑制活性的测定(AsPC-1 CGI)

[5170] 将测试化合物用二甲亚砜连续稀释,然后使用Labcyte Echo将200nL分配到U形底96孔板中。对于人胰腺癌细胞株AsPC-1,在于RPMI-1640培养基中添加了15%胎牛血清的培养基中,按照1000个细胞/100 μ L的方式制备细胞悬浮液。将细胞悬浮液以每孔100 μ L的浓度分配到添加有测试化合物的平板中,在37℃、5%二氧化碳气体培养箱中进行培养。96小时后,将80 μ L的CellTiter-Glo (Promega) 添加到每个孔中并测定荧光。根据相对于未添加测试化合物的对照的、添加测试化合物时的增殖抑制率,以50%增殖抑制浓度(IC50值)来计算测试化合物的细胞生长抑制活性(cell growth inhibition CGI)。以下示出将各测试化合物的IC50值(μ M)按照范围来分类后的结果。

[5171] 化合物序号5、9、16、20、27、33、40、47、54、55、66、120、132、134、144、150、176、209、245、253、270、276、279、289、301、302、303、308、316、334、342、343、344、362、363、370、371、374、378、381、390、391、400、404、415、422、432、466、481、506、509、515、529、545、547、555、567、571、574、587、589、594、626、630、640、668、678、690、693、695、713、717、721、731、734、775、799、806、816、835、836、840、863、866、871、882、896、907、926、938、965、973、974、981、987、999、1017、1042、1059、1070、1080、1091、1099、1116、1117、1120、1132、1139、1141、1143、1144、1148、1149、1151、1152、1158、1160、1162、1163、1165、1166、1170、1173、1175、1179、1182、1183、1190、1192、1194、1196、1199、1201、1204、1205、1206、1208、1209、1210、1215、1217、1220、1224、1231、1232、1234、1237、1241、1242、1244、1245、1248、1250、1259、1260、1261、1264、1267、1269、1270、1271、1272、1281、1282、1283、1285、1289、1290、1293、1295、1296、1297、1301、1303、1306、1308、1310、1311、1312、1317、1319、1320、1322、1324、1325、1330、1333、1335、1336、1337、1339、1341、1342、1343、1346、1348、1351、1356、1357、1360、1362、1363、1364、1365、1366、1367、1368、1369、1370、1371、1645、1649、1659、1661、1662、1750、1756、1772、1777、1779、1787、1792、1793、1809、1818、1836、1842、1843、1858、1865、1875、1886、1894、1898、1962、1977、1979、1985、1990、2001、以及2080的环状肽化合物显示了0.02(μ M)以下的IC50值。

[5172] 化合物序号44、48、49、56、73、79、89、127、128、155、173、182、201、236、243、263、272、311、313、339、340、366、386、388、403、410、441、469、531、558、563、622、647、684、694、726、768、774、776、778、790、807、814、818、827、868、885、890、900、918、921、958、959、977、1000、1001、1002、1008、1029、1030、1046、1060、1062、1073、1093、1098、1137、1142、1146、1154、1159、1164、1171、1193、1197、1198、1223、1228、1236、1251、1253、1254、1275、1278、

1287、1292、1299、1326、1340、1355、1658、1675、1679、1685、1694、1700、1701、1722、1726、1727、1729、1757、1761、1762、1790、1821、1840、1850、1851、1852、1870、1871、1872、1884、1890、1904、1905、1907、1925、1930、1936、1938、1948、1950、1958、1972、1978、1983、1984、1996、2004、2067、2072、以及2119的环状肽化合物显示了大于0.02 (μM) 且0.05 (μM) 以下的IC₅₀值。

[5173] 化合物序号11、68、88、126、137、160、161、163、239、246、274、292、326、327、353、385、408、409、411、420、425、434、437、438、453、486、518、532、535、543、551、562、608、616、650、652、662、674、677、683、699、701、708、712、735、783、820、825、837、845、859、881、904、909、912、948、1023、1037、1047、1112、1150、1176、1178、1180、1189、1233、1309、1321、1331、1338、1359、1374、1463、1475、1496、1512、1524、1537、1549、1550、1551、1563、1570、1571、1572、1590、1597、1604、1610、1617、1620、1621、1629、1634、1637、1653、1654、1668、1671、1680、1689、1696、1714、1717、1720、1728、1735、1740、1746、1748、1770、1784、1785、1786、1795、1798、1800、1801、1804、1805、1807、1812、1824、1835、1861、1869、1879、1881、1892、1901、1906、1908、1911、1915、1923、1932、1933、1941、1947、1963、1965、1966、1968、1969、1975、1988、1993、1994、2005、2006、2057、2063、2074、2076、2118、2121、以及2122的环状肽化合物显示了大于0.05 (μM) 且0.1 (μM) 以下的IC₅₀值。

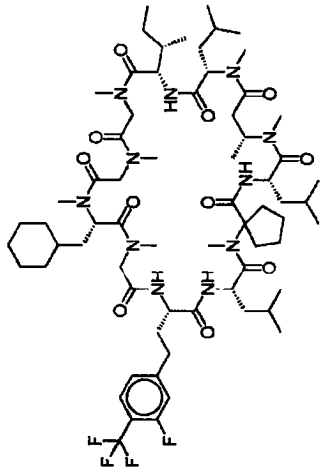
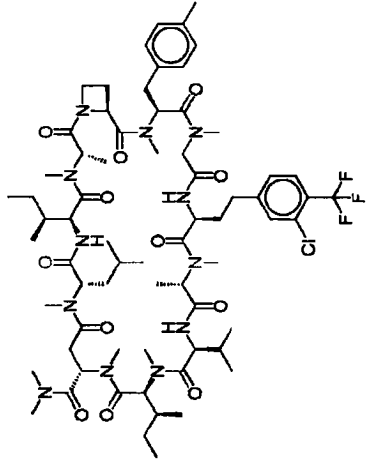
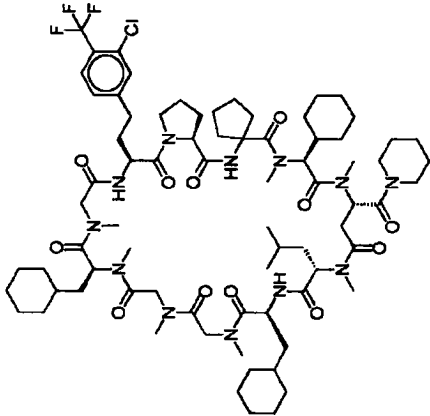
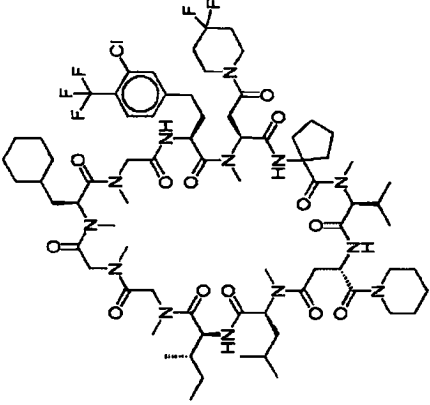
[5174] 化合物序号2、15、23、30、35、36、37、39、52、58、60、64、72、78、80、81、86、90、94、100、106、108、110、119、121、122、131、136、140、147、157、164、168、207、211、212、216、220、221、223、225、229、238、249、250、256、264、273、285、287、288、294、300、309、319、321、328、337、341、348、354、356、360、364、367、384、387、393、395、397、399、416、428、439、445、446、449、455、456、461、470、476、478、480、488、491、496、497、520、523、526、544、548、552、559、561、568、572、575、580、599、600、606、618、620、629、631、644、663、667、672、676、680、689、700、714、732、740、747、749、755、756、757、762、771、787、789、798、804、809、811、815、824、838、849、853、854、872、873、877、880、888、893、901、910、911、916、920、929、930、943、944、957、960、961、968、971、980、983、985、988、995、997、1005、1012、1014、1018、1019、1022、1026、1035、1036、1038、1040、1051、1055、1057、1064、1066、1069、1071、1072、1109、1114、1115、1124、1128、1130、1140、1145、1153、1167、1172、1181、1203、1207、1213、1218、1227、1235、1252、1255、1262、1266、1273、1284、1291、1302、1315、1323、1329、1332、1334、1347、1353、1376、1439、1454、1457、1458、1462、1466、1471、1477、1481、1482、1485、1486、1497、1498、1499、1500、1501、1504、1508、1514、1523、1544、1555、1557、1561、1564、1565、1567、1569、1576、1579、1583、1584、1588、1589、1594、1596、1598、1599、1601、1602、1605、1607、1608、1609、1611、1615、1616、1625、1626、1630、1631、1632、1633、1636、1638、1639、1640、1641、1643、1646、1648、1650、1652、1656、1657、1663、1669、1670、1672、1673、1682、1684、1686、1693、1699、1704、1705、1709、1711、1712、1713、1716、1731、1737、1738、1739、1744、1749、1751、1758、1763、1764、1766、1767、1773、1774、1789、1791、1796、1797、1803、1817、1825、1828、1829、1830、1832、1833、1838、1845、1846、1847、1854、1859、1860、1863、1866、1867、1877、1896、1900、1913、1916、1921、1924、1926、1928、1929、1931、1934、1939、1940、1949、1954、1955、1956、1957、1971、1976、1980、1998、1999、2031、2059、2064、2065、2077、2078、2084、2085、2097、2102、2117、2120、2123、2124、2131、2138、2139、以及2168的环状肽

化合物显示了大于0.1 (μM) 且0.5 (μM) 以下的IC₅₀值。

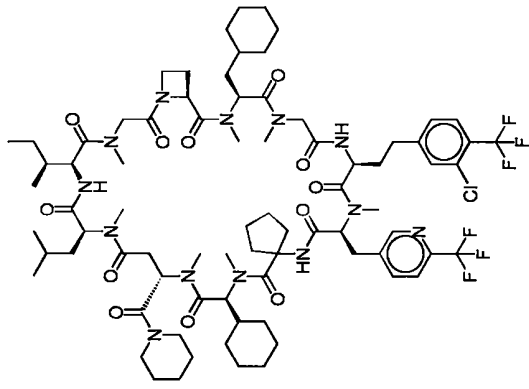
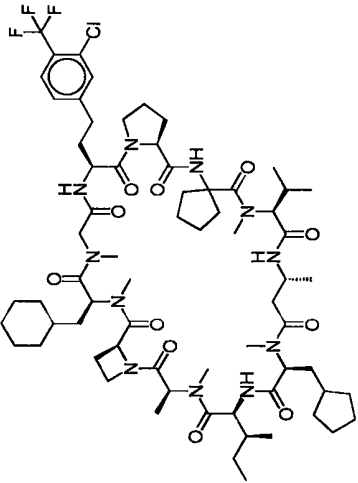
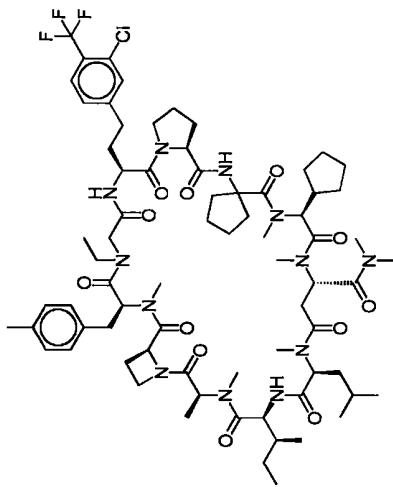
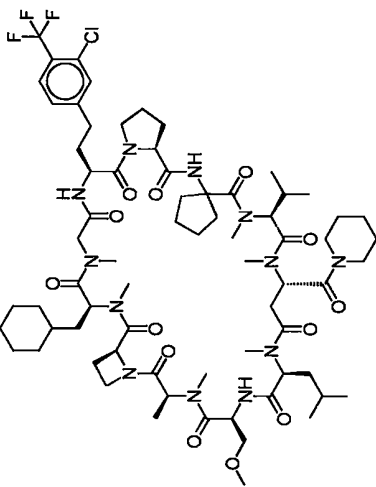
[5175] 化合物序号1、4、6、7、10、12、13、14、17、22、24、32、43、45、57、59、61、63、67、69、71、75、76、83、87、91、92、93、95、97、102、103、109、111、114、115、116、117、118、123、124、125、133、135、139、141、142、143、145、146、148、149、151、156、158、159、162、165、166、169、171、172、174、175、177、178、179、180、183、185、186、187、188、191、192、194、195、196、197、200、202、204、205、208、210、213、217、218、226、228、230、231、232、234、235、237、247、248、251、254、255、257、259、262、265、266、268、275、277、278、280、281、283、284、295、297、298、304、305、307、312、314、317、318、320、325、329、330、332、335、336、346、347、352、357、358、368、376、379、380、382、389、392、394、402、405、407、417、418、419、421、423、426、427、433、440、442、443、444、447、450、451、454、457、458、459、460、463、468、471、477、483、484、485、487、489、492、495、498、500、501、504、507、508、511、514、516、519、522、524、527、528、533、534、538、540、542、549、553、554、556、557、564、565、569、570、577、581、584、585、586、590、591、592、593、596、597、598、603、604、605、614、619、623、627、635、636、638、641、643、645、648、653、656、661、664、665、666、670、681、682、687、688、691、692、696、697、703、705、706、707、709、710、711、715、716、718、720、722、723、725、727、728、729、730、736、741、742、744、745、753、754、760、765、766、767、769、770、772、781、782、784、786、788、792、794、796、797、800、801、803、805、810、812、813、819、821、822、823、829、841、842、844、848、850、851、855、856、857、858、861、862、864、867、874、875、876、879、883、887、892、894、895、897、903、905、906、908、913、914、915、917、933、934、935、936、939、940、941、942、945、946、950、954、955、956、963、964、967、969、970、975、979、982、986、991、993、994、998、1004、1007、1009、1010、1011、1015、1016、1020、1021、1024、1025、1027、1033、1034、1041、1043、1044、1045、1050、1053、1054、1056、1058、1061、1063、1068、1076、1077、1079、1081、1083、1084、1087、1089、1094、1095、1096、1100、1101、1103、1105、1106、1110、1111、1121、1123、1125、1129、1133、1134、1135、1138、1157、1169、1174、1177、1185、1186、1187、1188、1191、1195、1200、1202、1211、1214、1216、1219、1221、1222、1225、1226、1229、1230、1238、1239、1243、1246、1247、1249、1256、1257、1258、1263、1268、1274、1276、1277、1279、1286、1288、1294、1298、1300、1304、1305、1307、1313、1314、1316、1318、1327、1328、1345、1350、1354、1358、1361、1372、1377、1380、1386、1387、1388、1392、1396、1397、1398、1403、1404、1411、1414、1415、1417、1419、1421、1422、1424、1425、1426、1428、1429、1432、1433、1435、1436、1438、1440、1441、1443、1444、1448、1449、1451、1452、1453、1455、1456、1459、1460、1461、1465、1467、1469、1472、1474、1476、1478、1480、1483、1484、1489、1490、1491、1493、1495、1502、1503、1506、1507、1509、1511、1515、1517、1518、1519、1520、1526、1527、1528、1529、1532、1533、1534、1535、1536、1539、1541、1545、1546、1547、1553、1556、1559、1562、1566、1573、1574、1575、1578、1580、1582、1585、1587、1591、1595、1606、1613、1614、1623、1627、1635、1644、1647、1651、1660、1664、1665、1666、1667、1674、1676、1677、1678、1681、1687、1688、1690、1692、1695、1697、1698、1702、1703、1706、1707、1708、1715、1718、1719、1721、1723、1724、1725、1730、1732、1733、1736、1741、1742、1743、1745、1747、1752、1753、1754、1755、1759、1760、1768、1769、1771、1775、1776、1778、1780、1782、1788、1799、1802、1806、1808、1810、1811、1813、1815、1816、1819、1820、1822、1823、1826、1827、1831、1834、1837、1841、1844、1848、1849、

1853、1855、1856、1857、1862、1864、1880、1897、1917、1937、1946、1973、1982、2030、2035、2058、2060、2061、2062、2066、2068、2069、2070、2071、2073、2075、2079、2081、2082、2083、2113、2115、2116、2125、2127、2128、2129、2130、2132、2135、2136、2137、2140、2141、2142、2143、2144、2145、2146、2147、2149、2150、2151、2169、2172、2173、2174、2175、2176、2177、2178、以及2179的环状肽化合物显示了大于0.5 (μM) 的IC₅₀值。

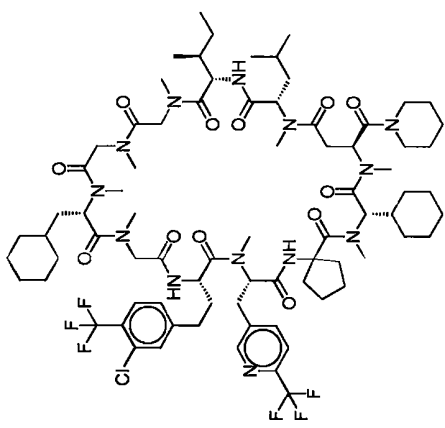
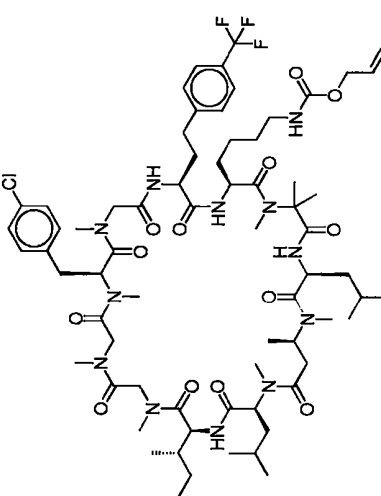
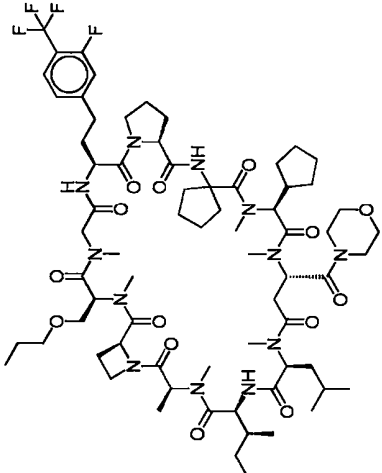
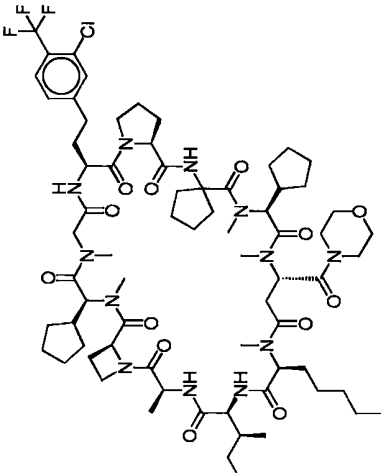
[5176] [表24]

化合物 编号	结构式	化合物 编号	结构式
2		4	
1		3	

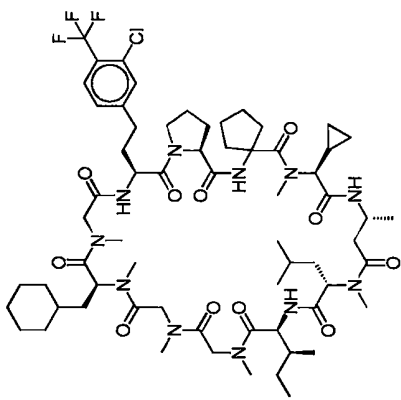
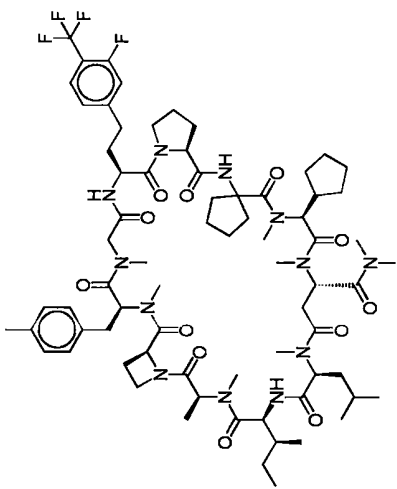
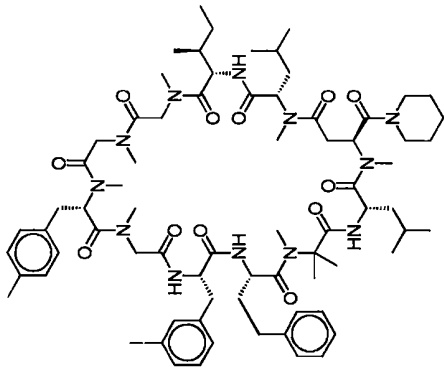
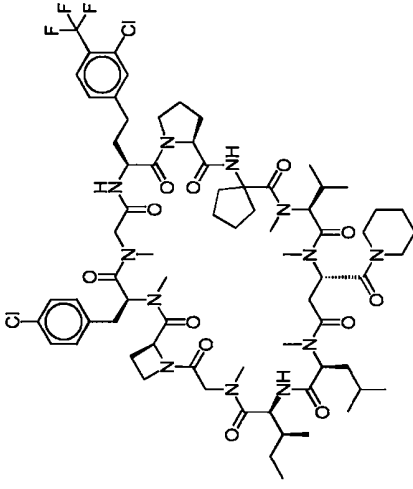
[5177]

	
6	8
	
5	7

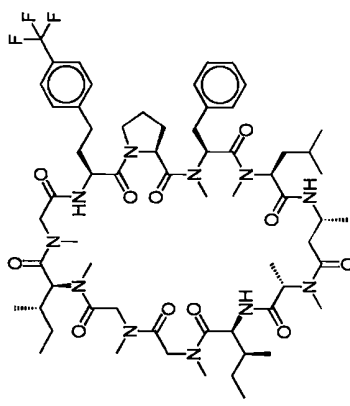
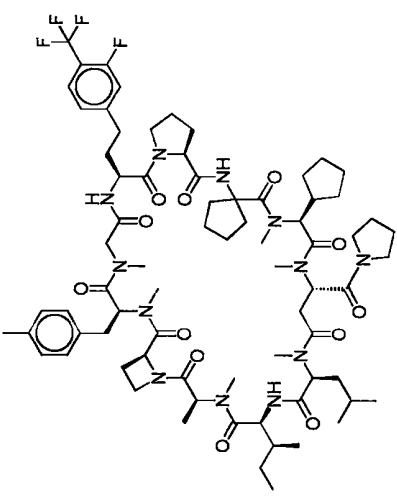
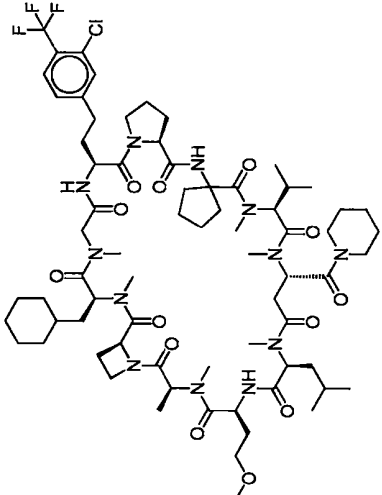
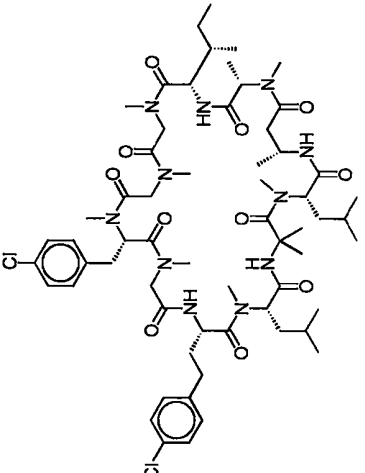
[5178]

	
10	12
	
9	11

[5179]

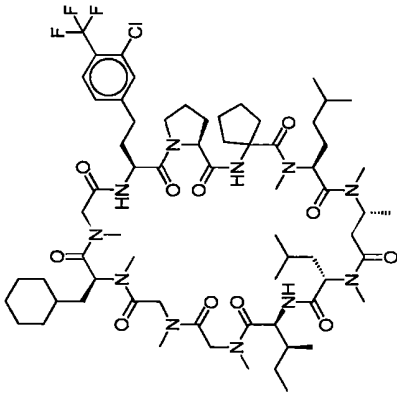
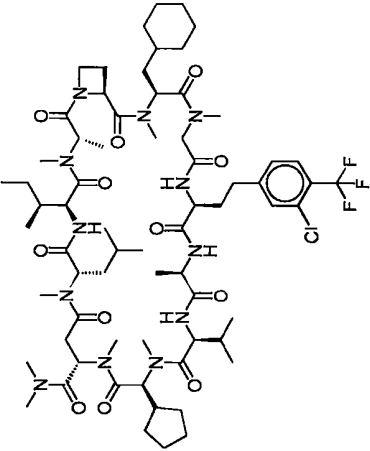
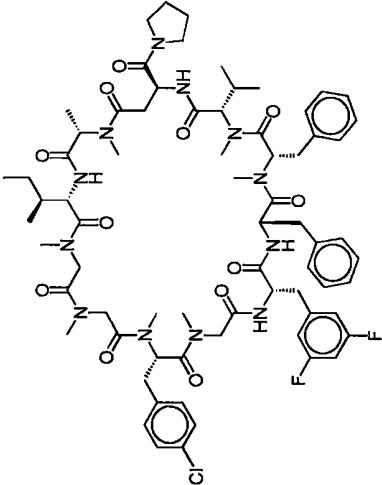
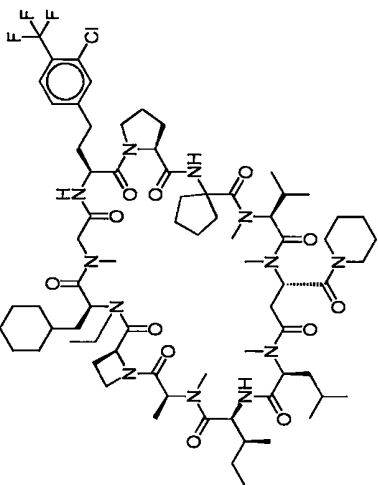
	
14	16
	
13	15

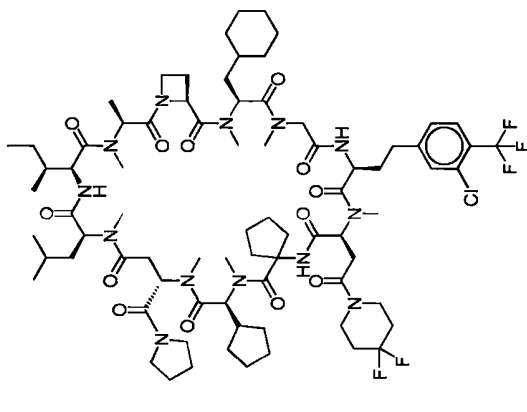
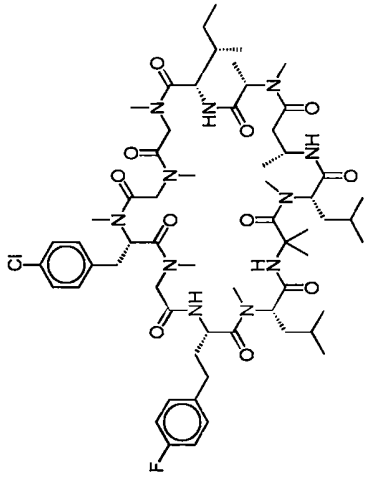
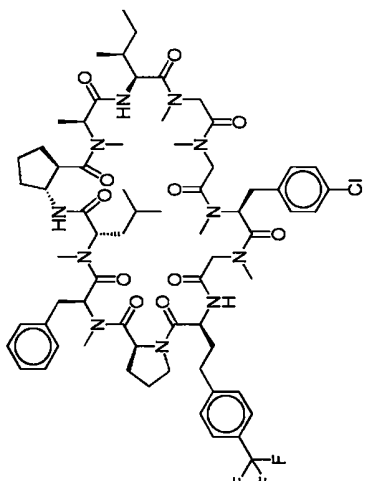
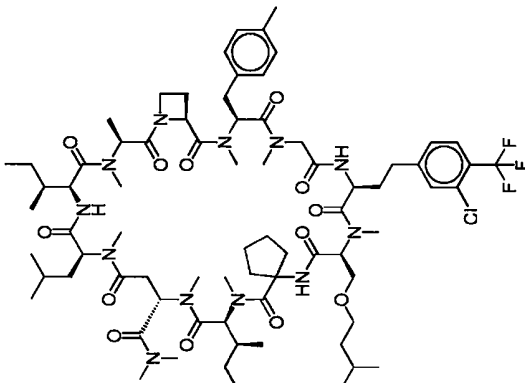
[5180]

	
18	20
	
17	19

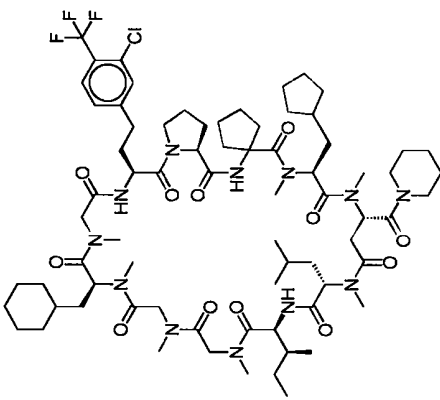
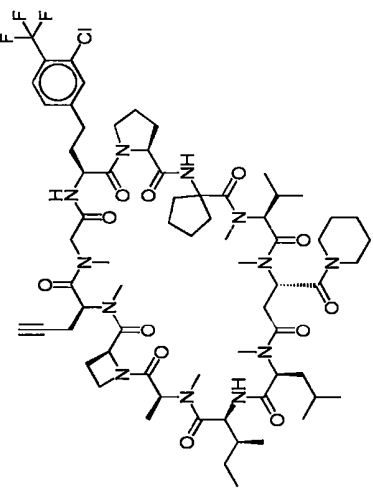
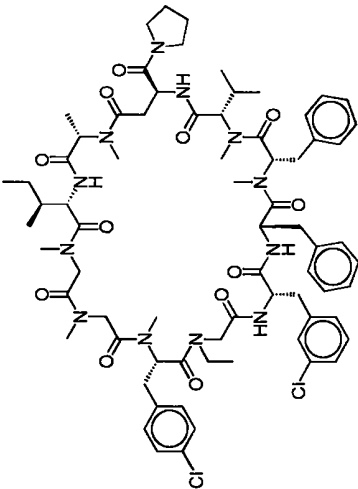
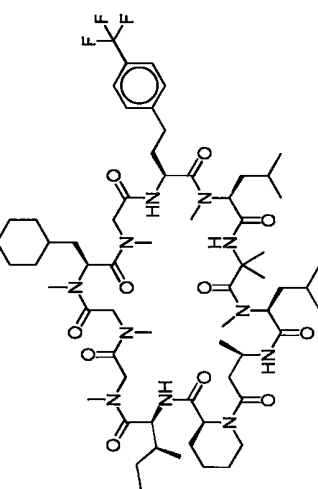
[5181]

[5182]

	
22	24
	
21	23

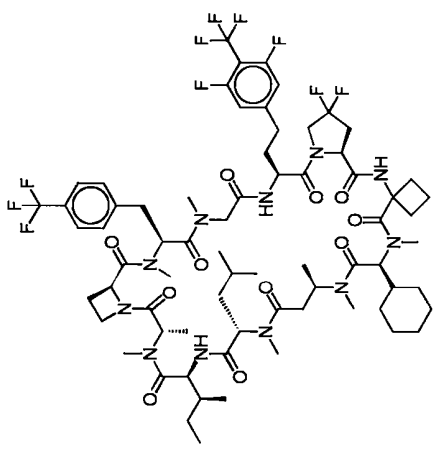
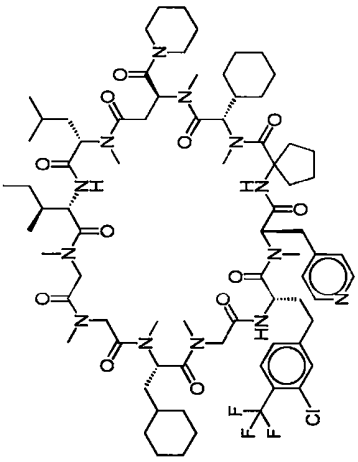
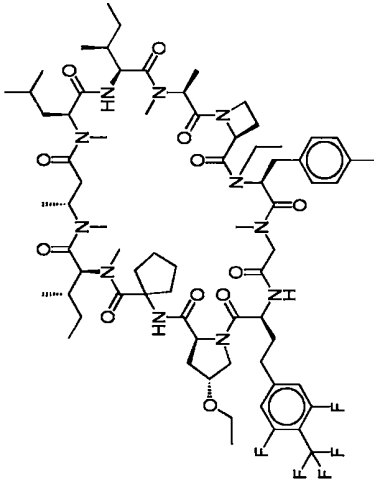
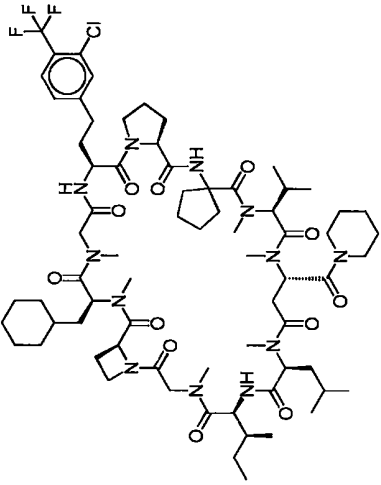
	
26	28
	
25	27

[5183]

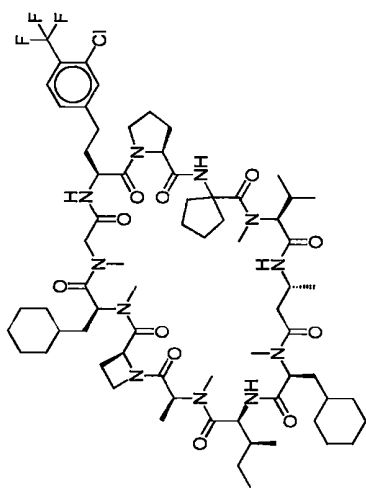
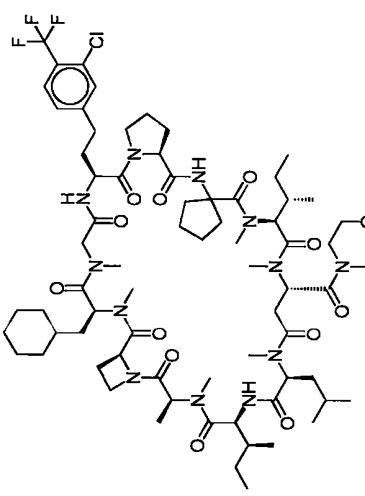
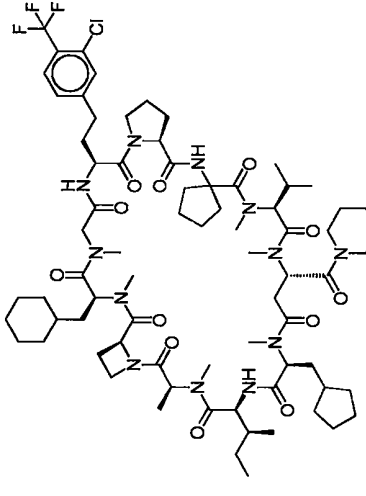
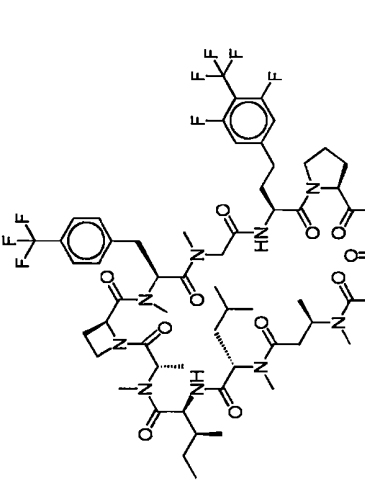
	
30	32
	
29	31

[5184]

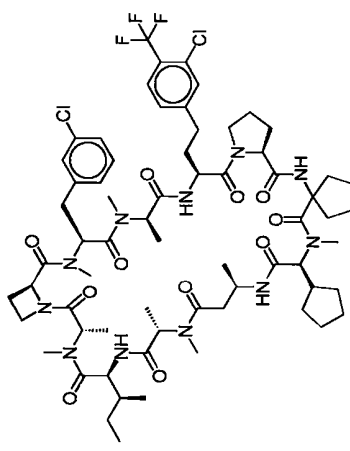
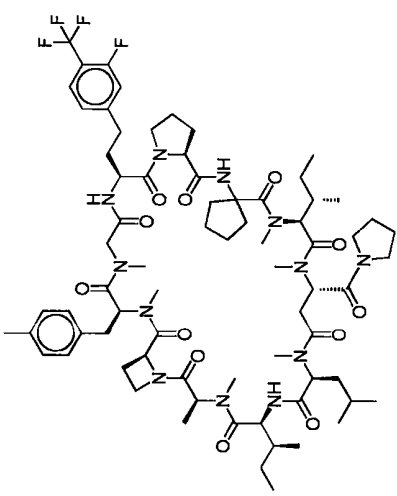
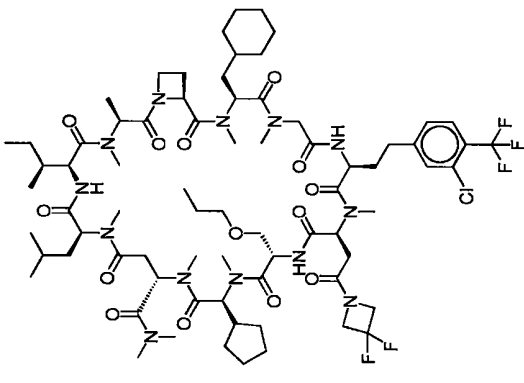
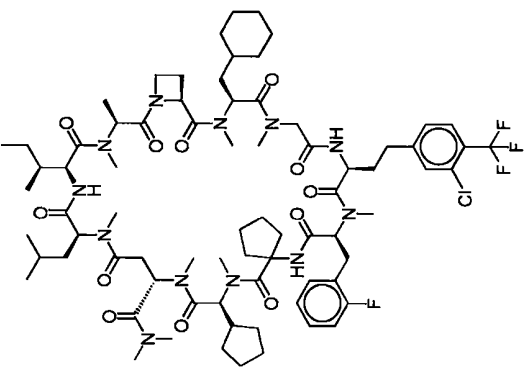
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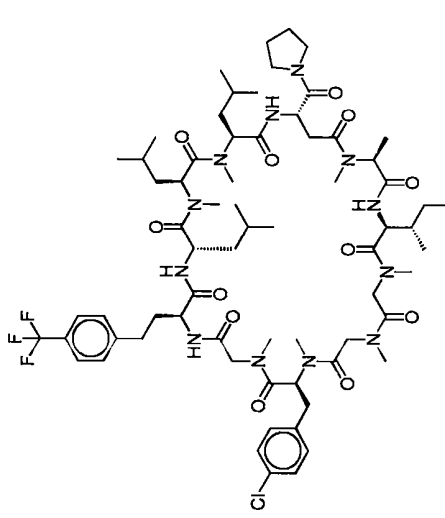
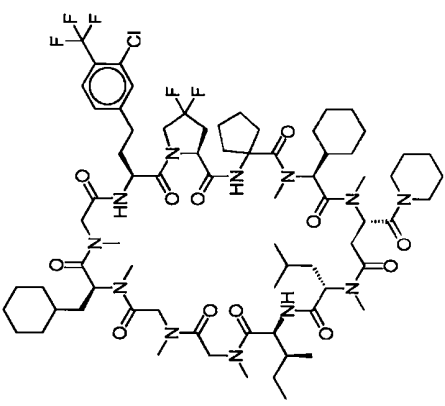
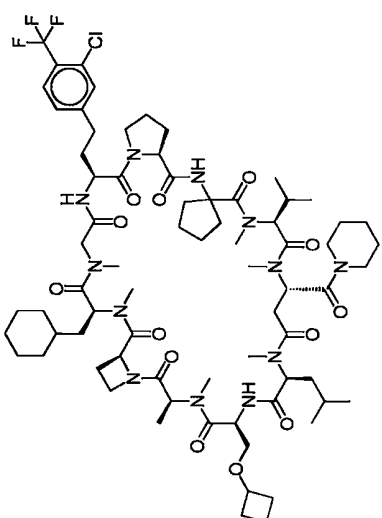
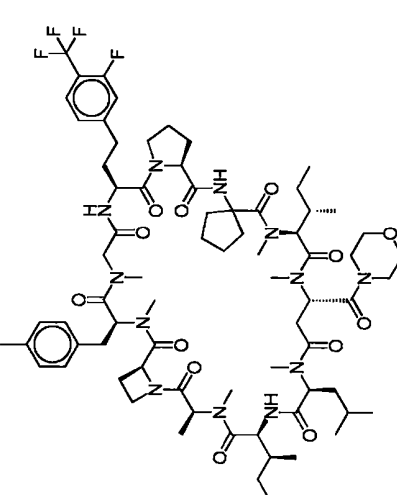
	
34	36
	
33	35

[5186]

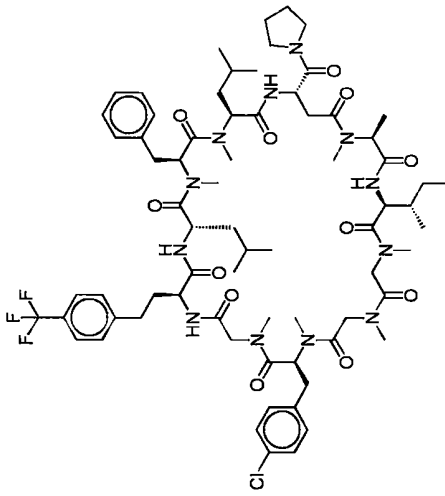
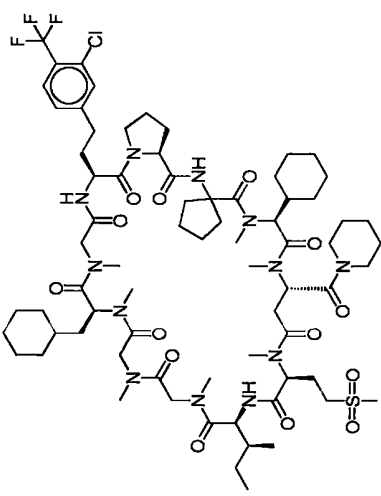
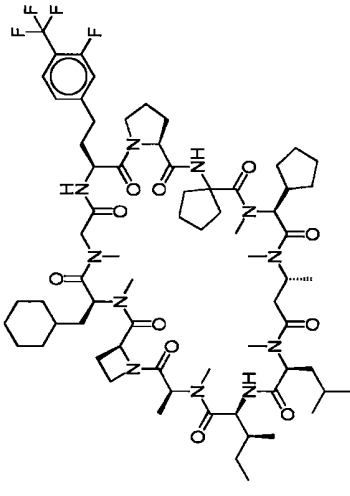
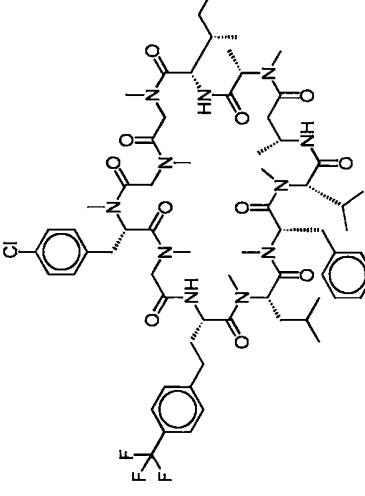
	
38	40
	
37	39

[5187]

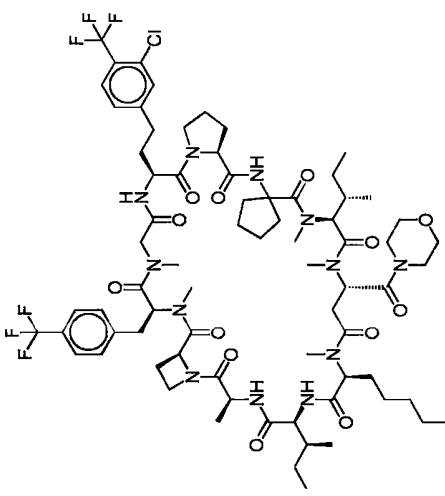
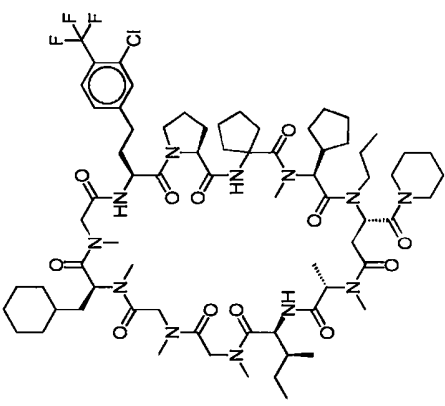
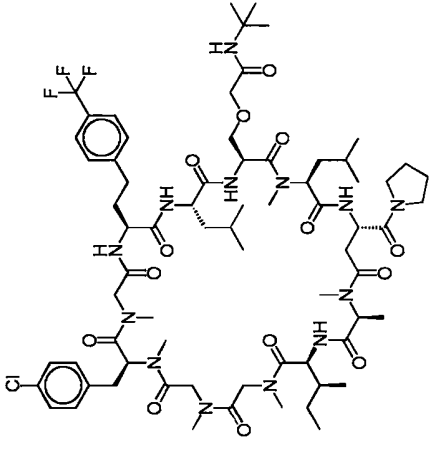
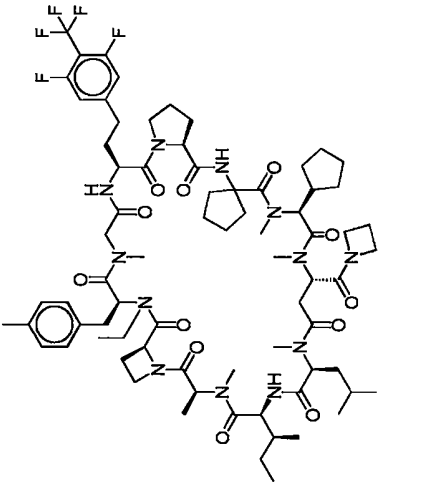
	
42	44
	
41	43

	
46	48
	
45	47

[5188]

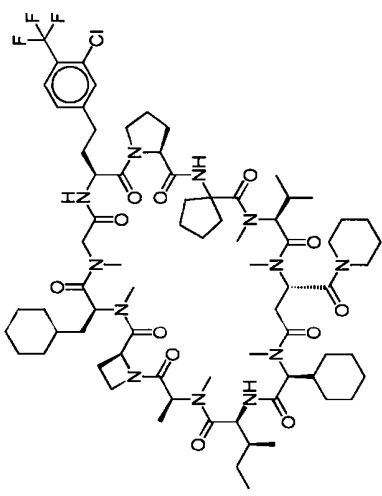
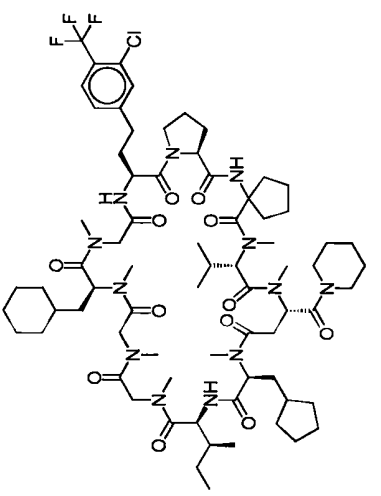
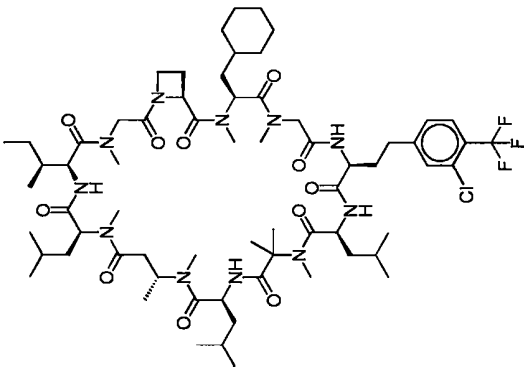
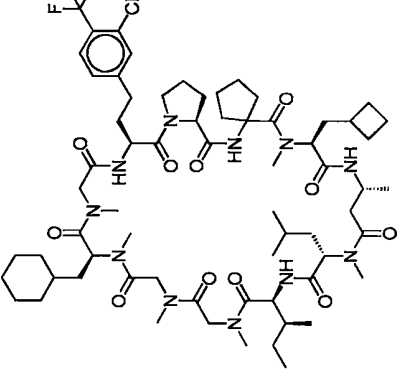
	
50	52
	
49	51

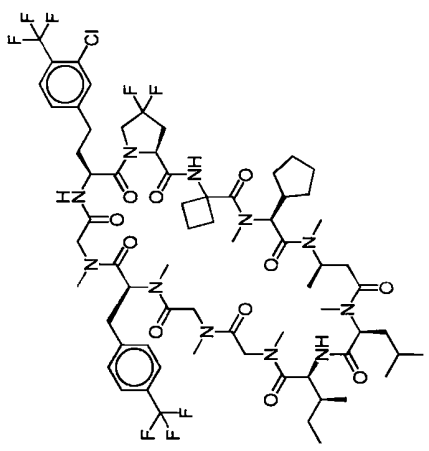
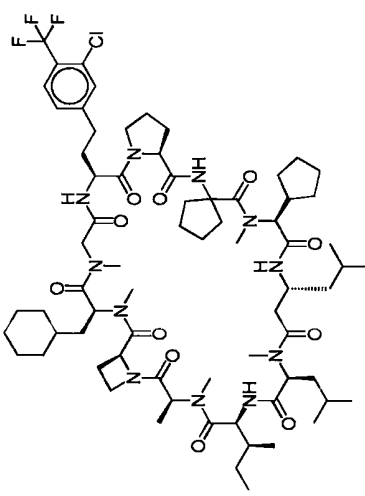
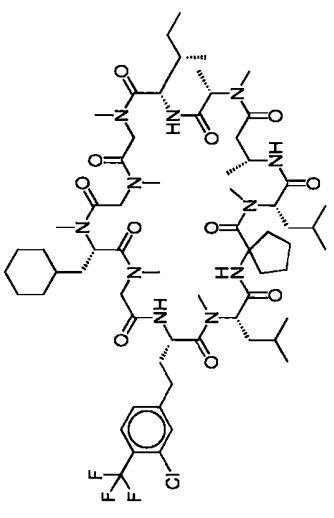
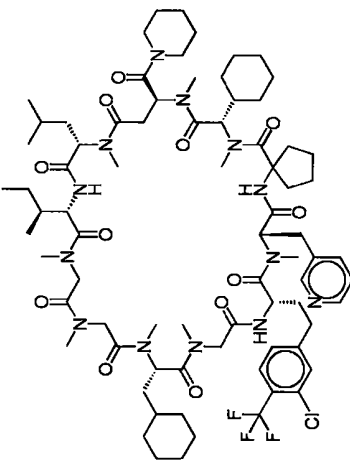
[5189]

	
54	56
	
53	55

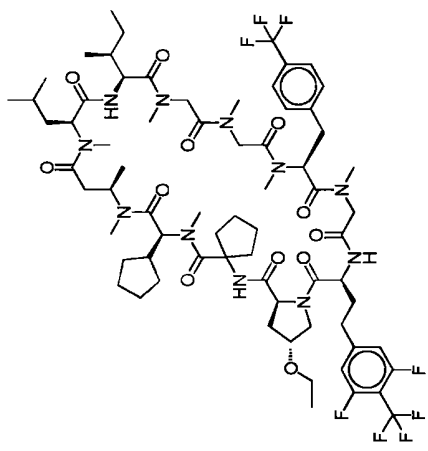
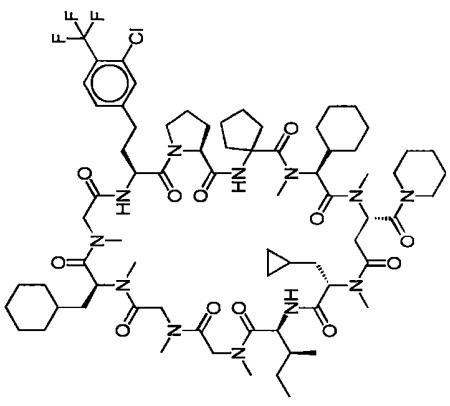
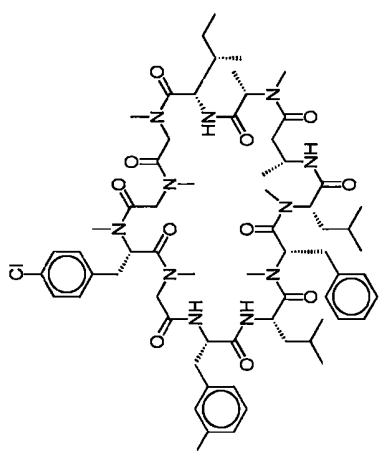
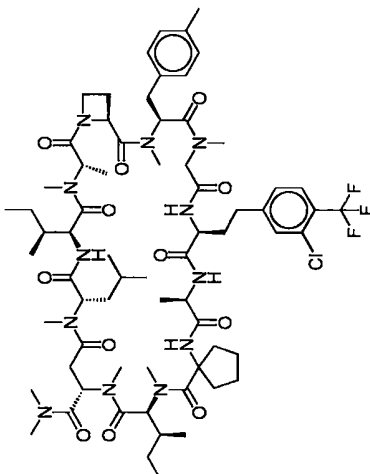
[5190]

[5191]

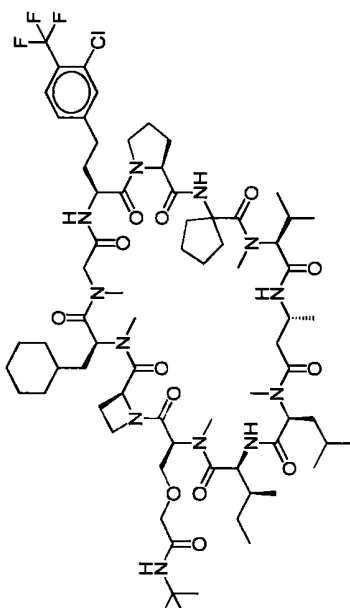
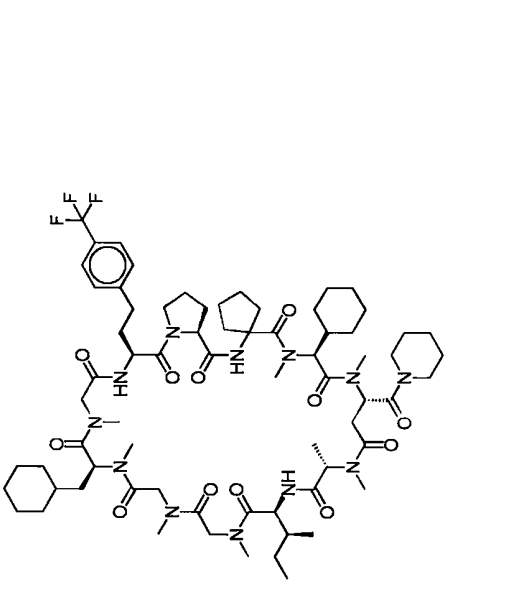
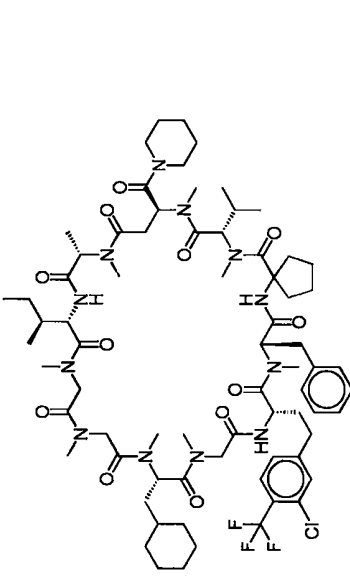
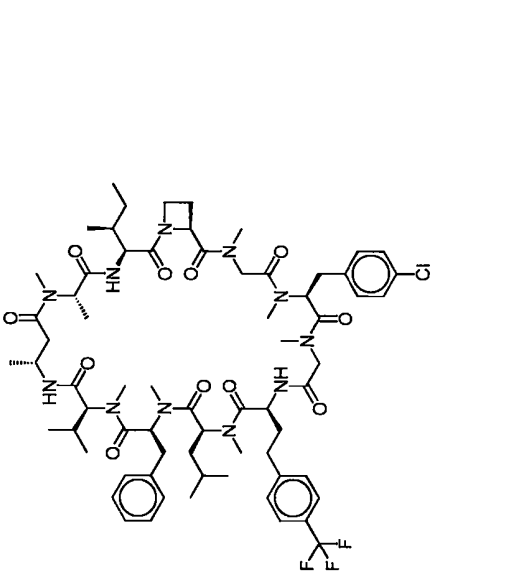
	
58	60
	
57	59

	
62	64
	
61	63

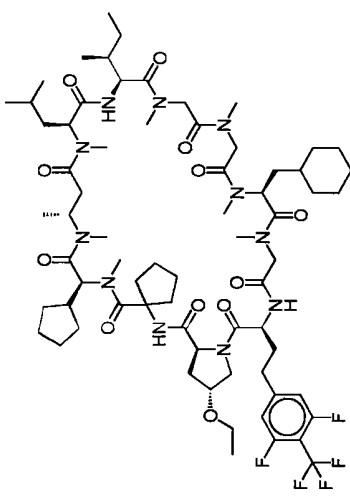
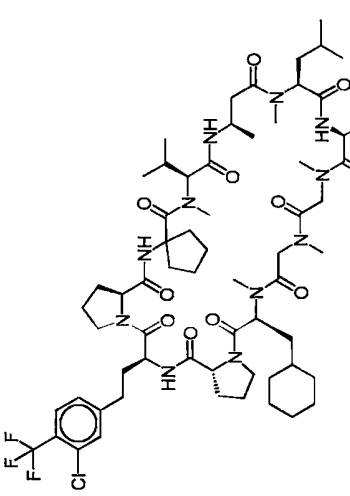
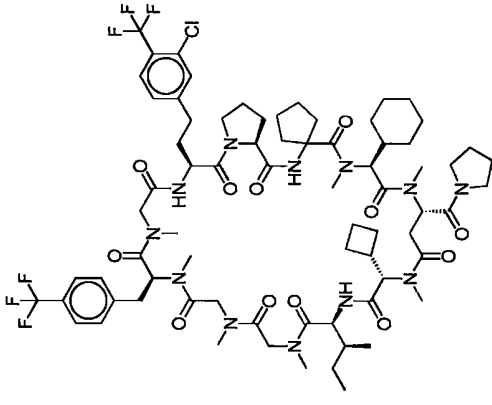
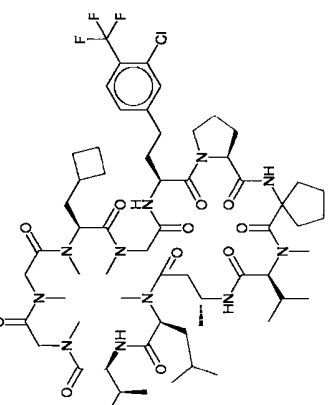
[5192]

	
66	68
	
65	67

[5193]

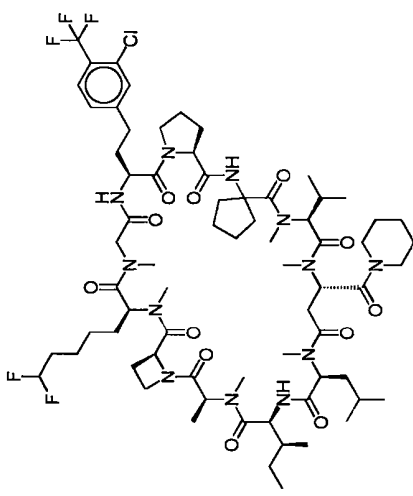
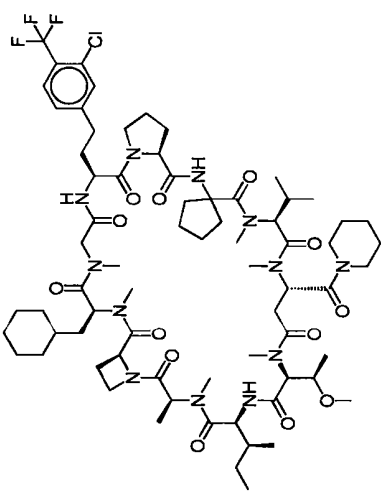
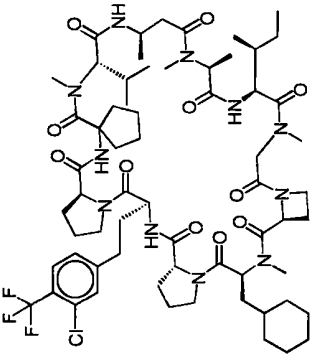
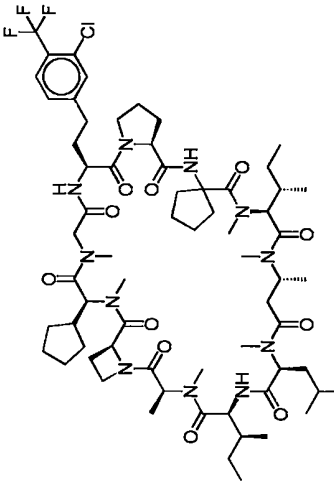
	
70	72
	
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[5194]

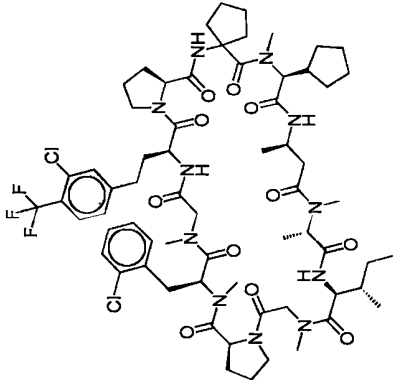
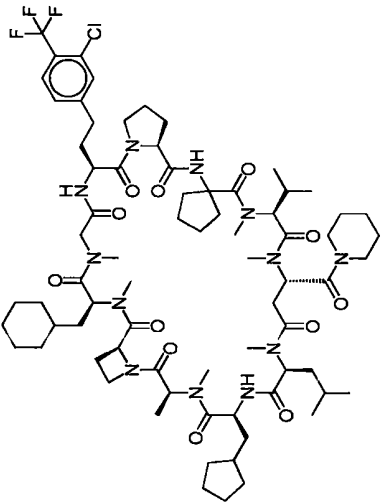
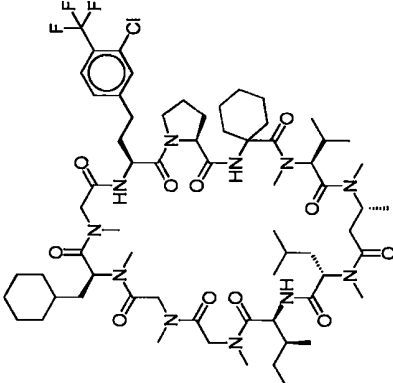
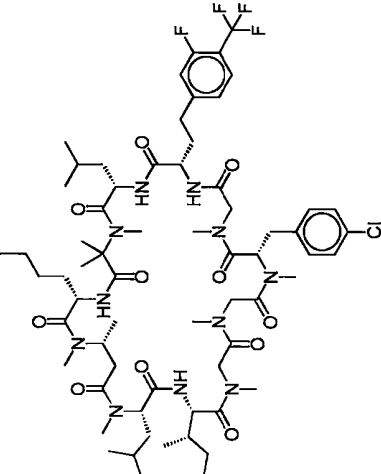
	
74	76
	
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[5195]

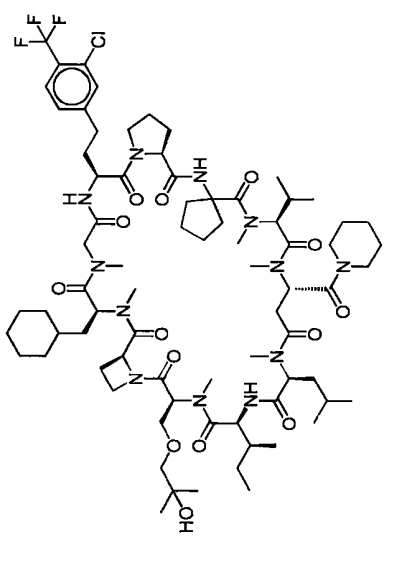
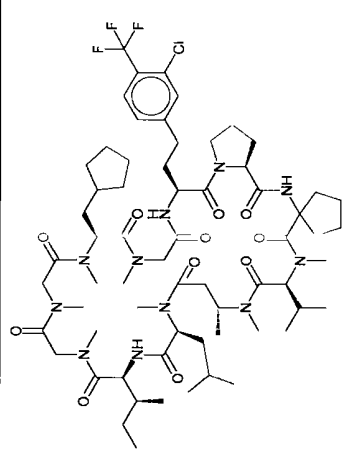
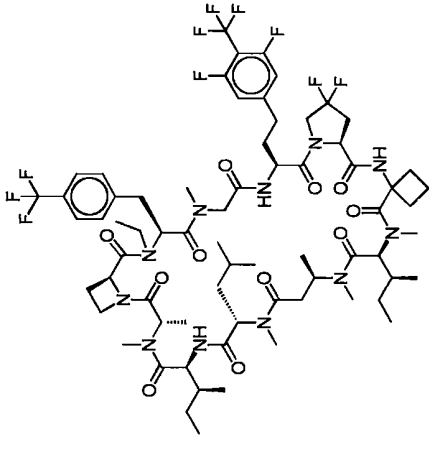
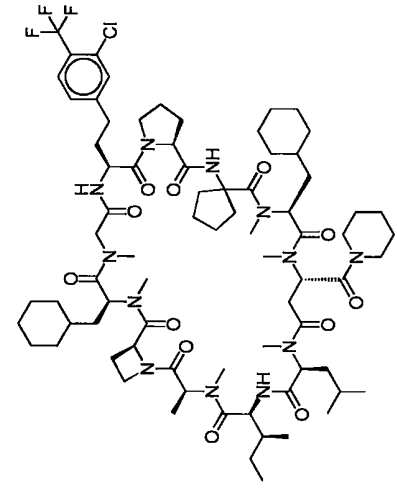
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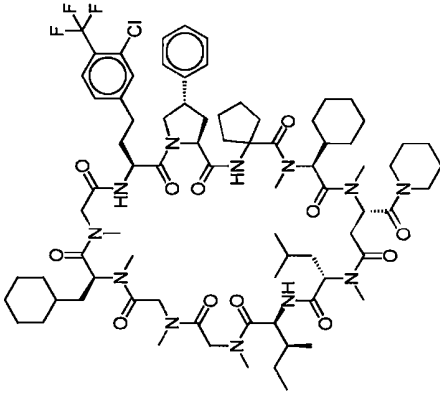
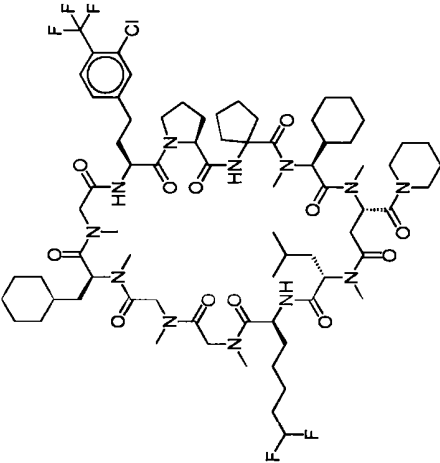
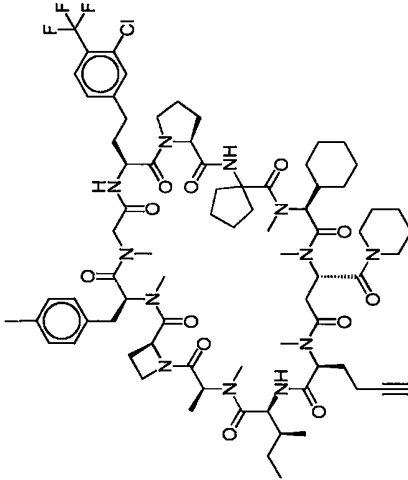
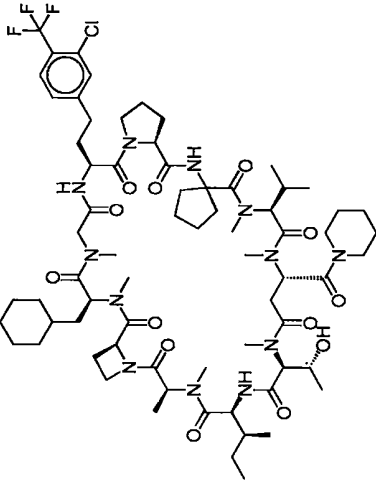
	
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[5197]

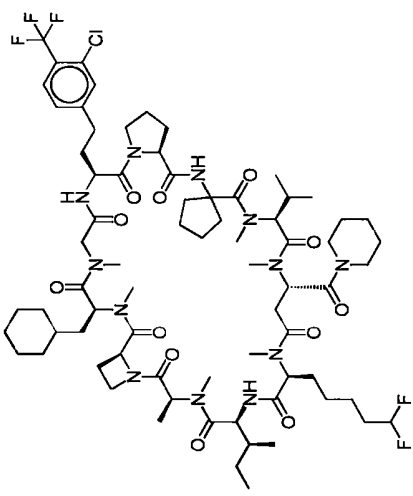
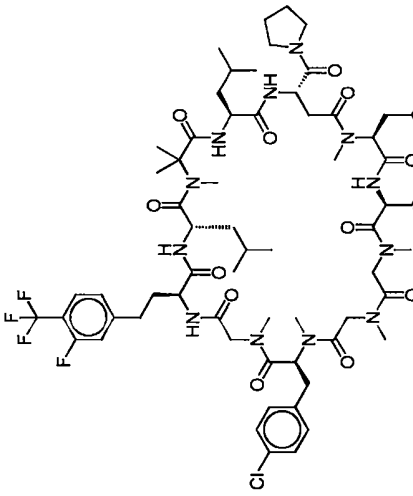
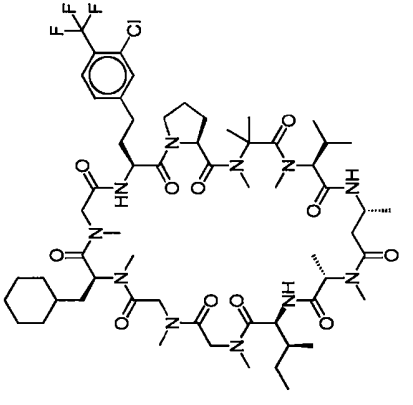
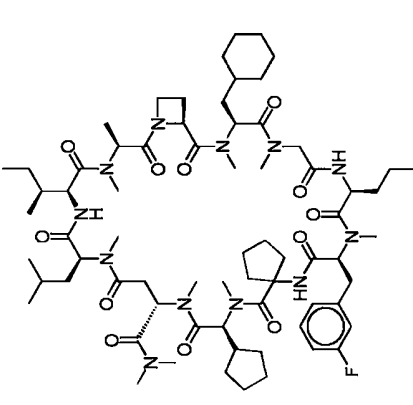
	
82	84
	
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[5198]

	
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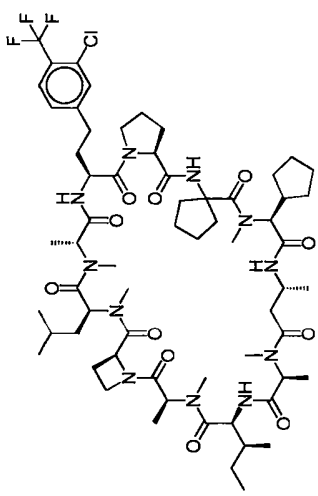
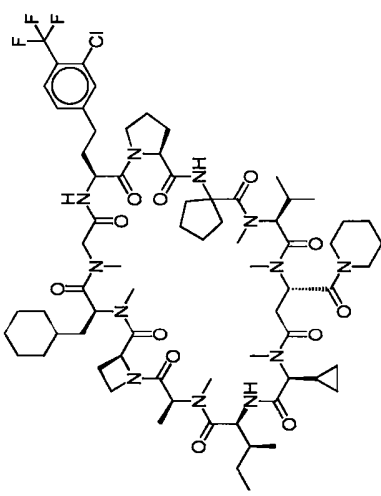
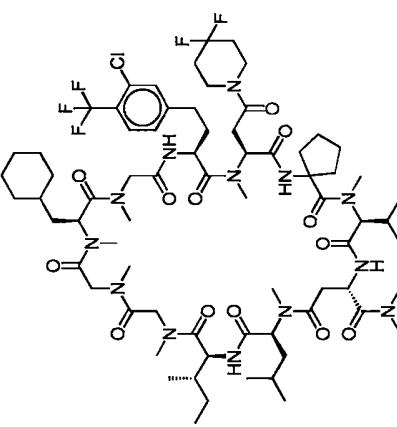
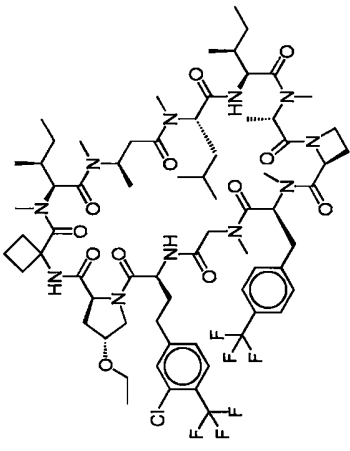
	
90	92
	
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[5199]

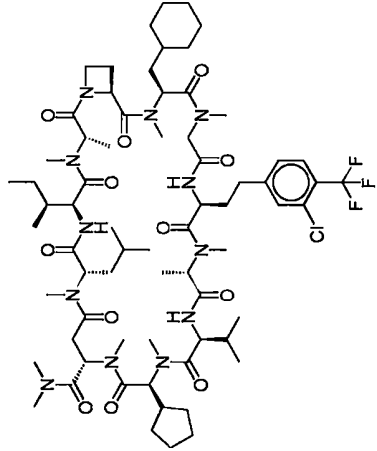
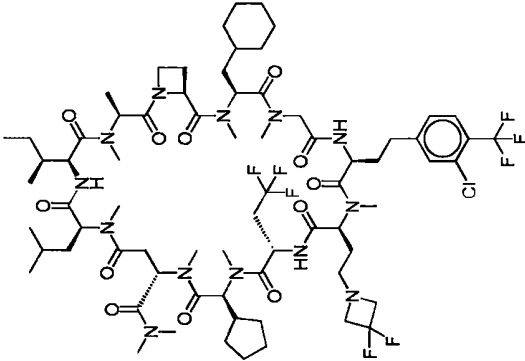
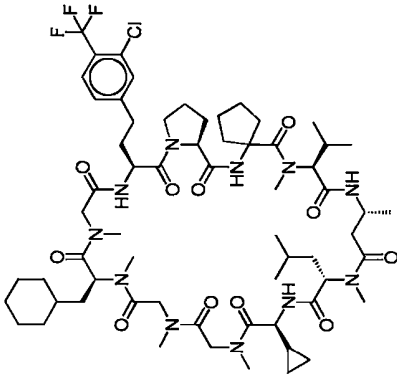
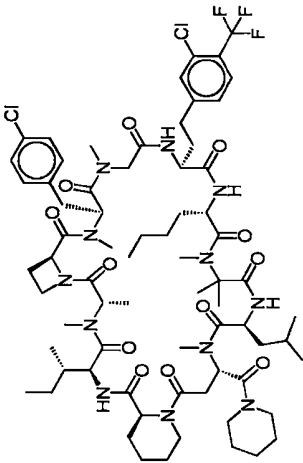
	
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[5200]

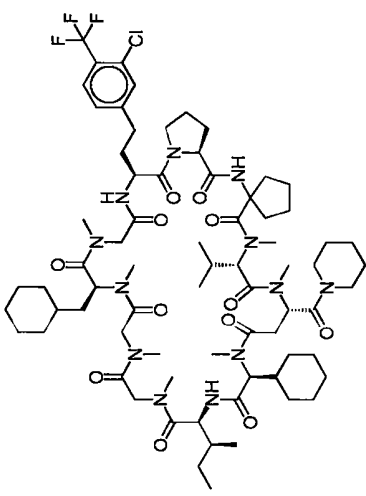
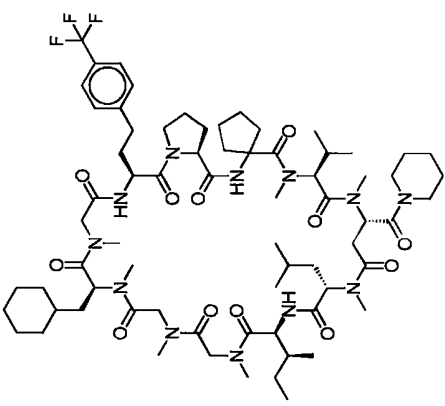
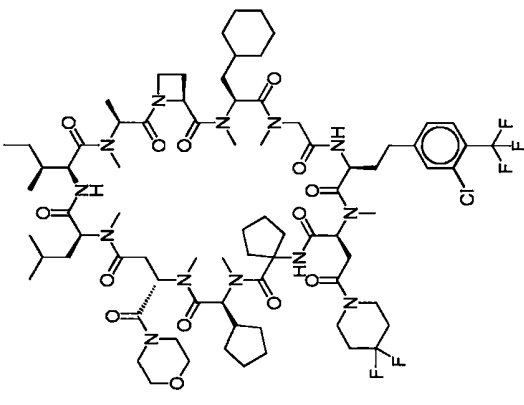
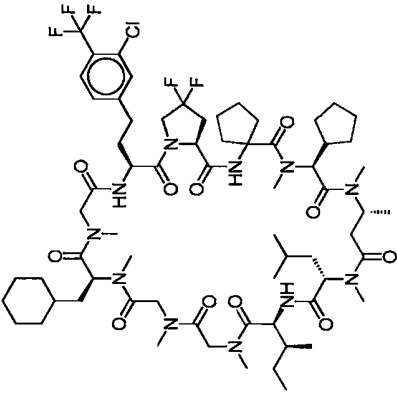
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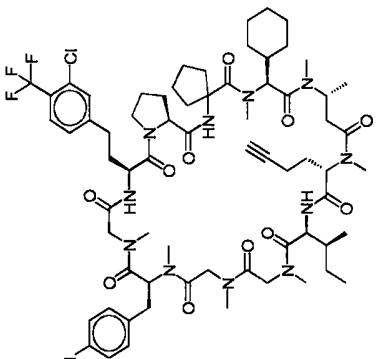
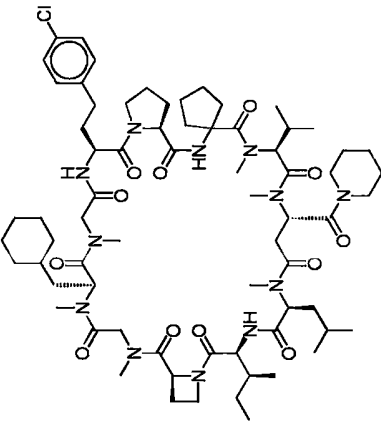
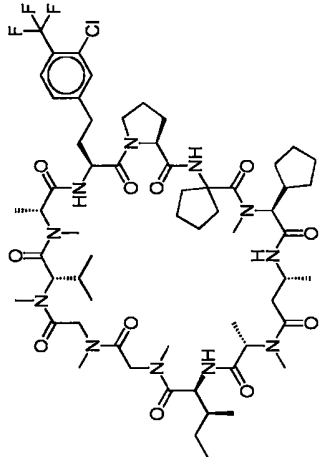
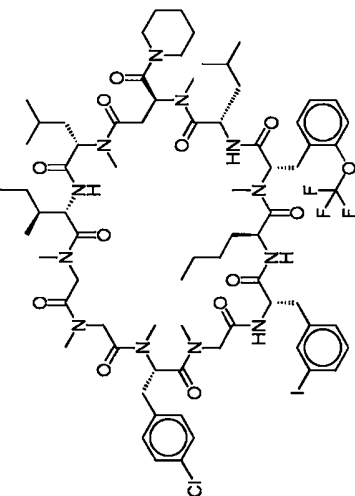
	
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[5202]

	
102	104
	
101	103

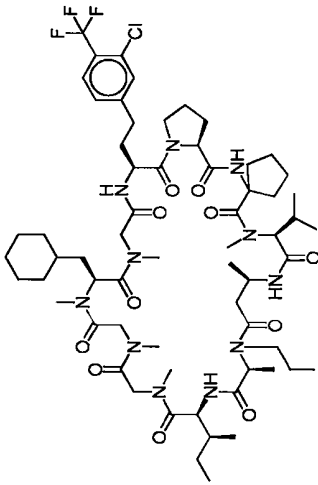
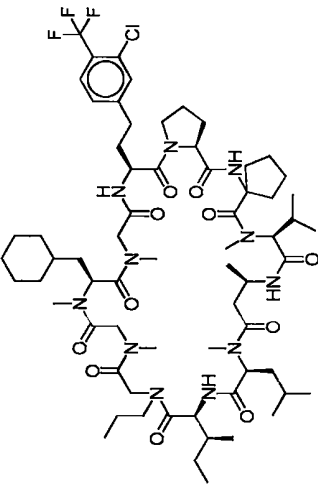
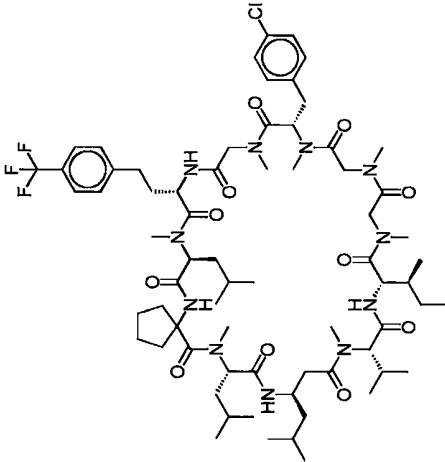
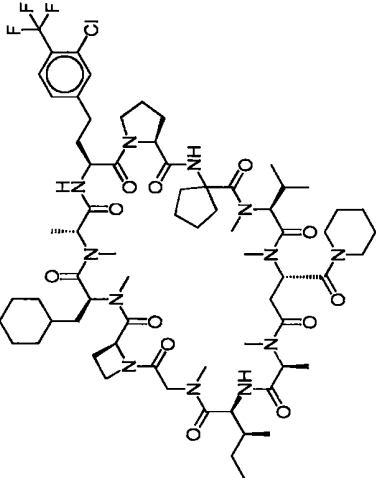
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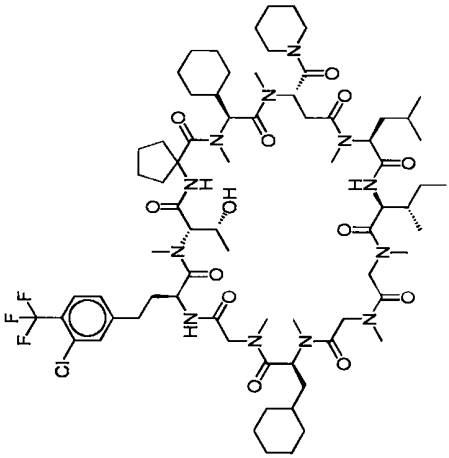
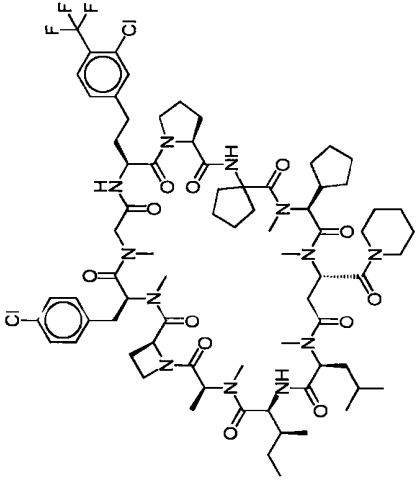
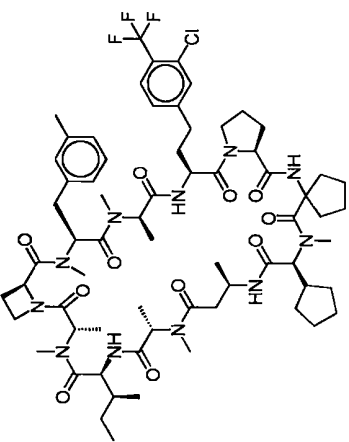
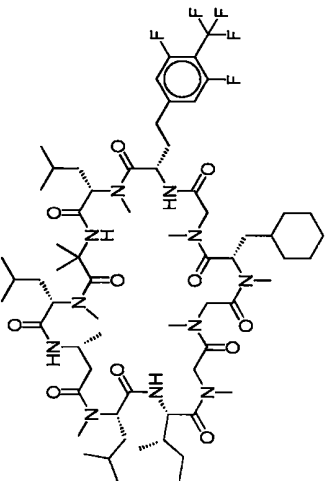
	
106	108
	
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[5204]

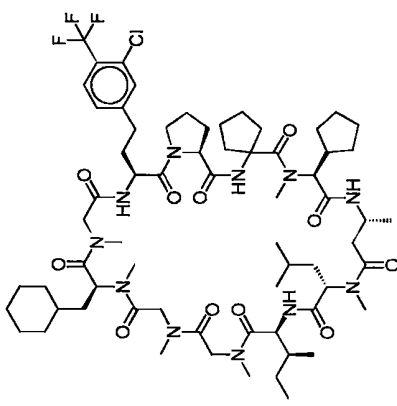
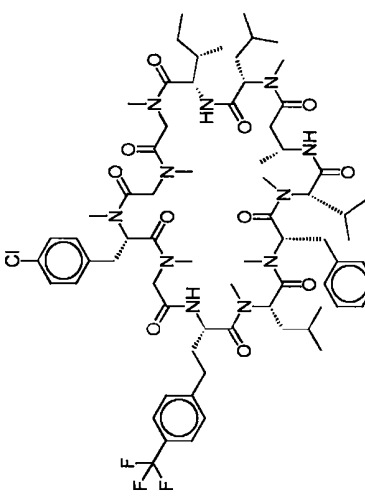
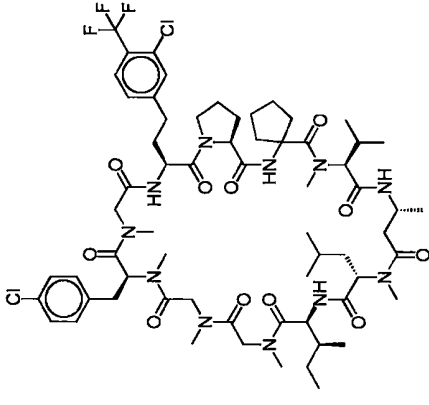
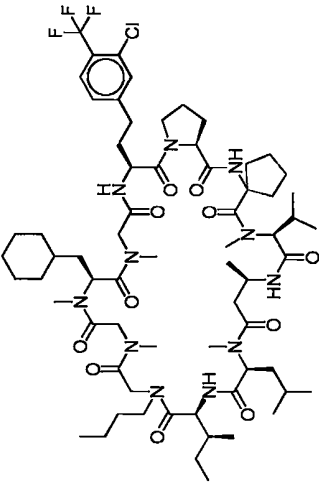
[5205]

	
114	116
	
113	115

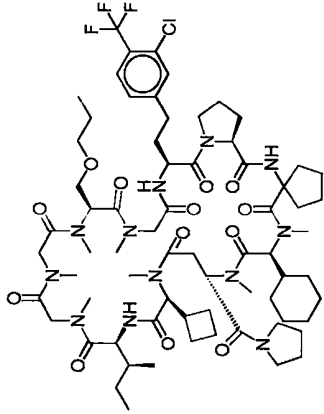
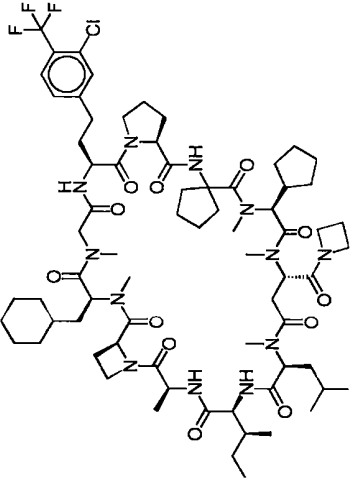
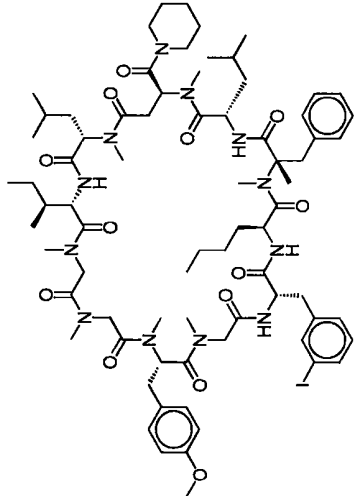
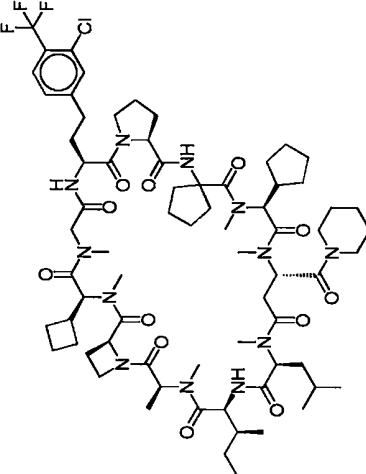
	
118	120
	
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[5206]

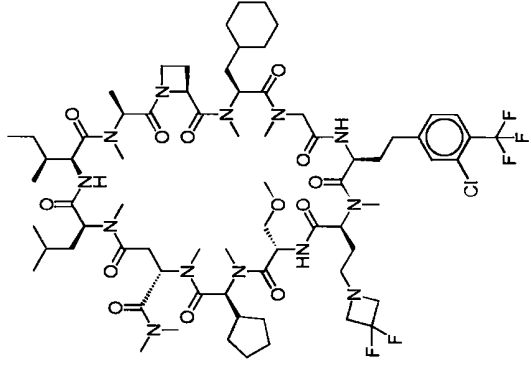
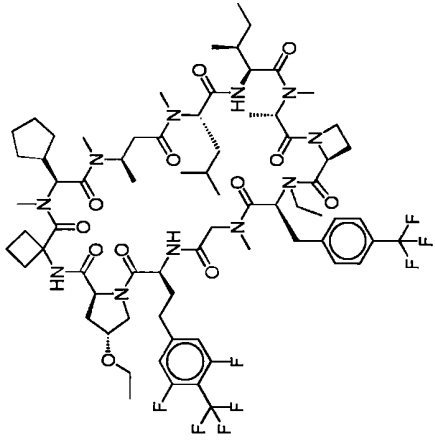
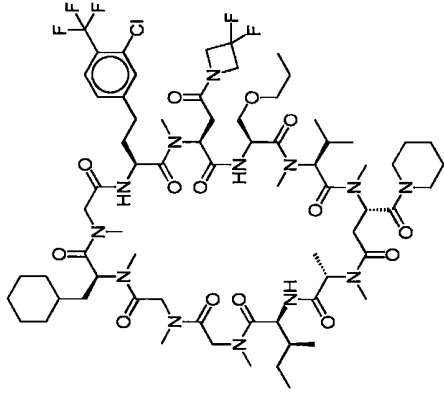
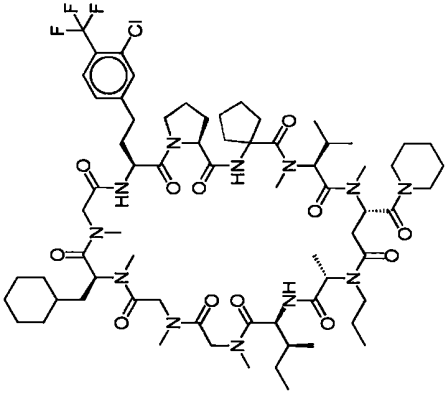
[5207]

	
122	124
	
121	123

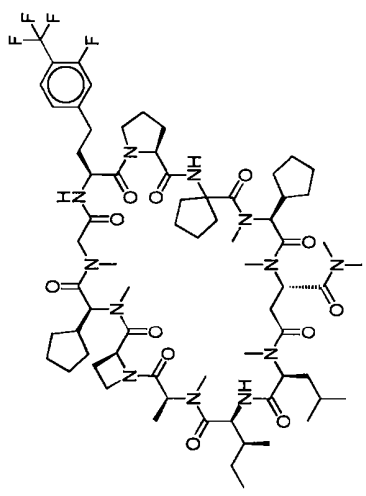
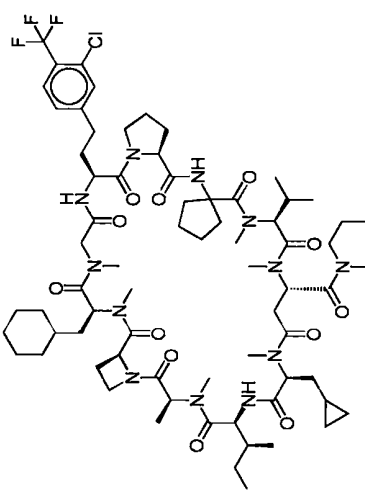
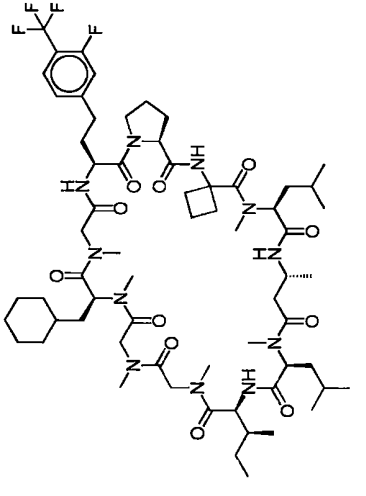
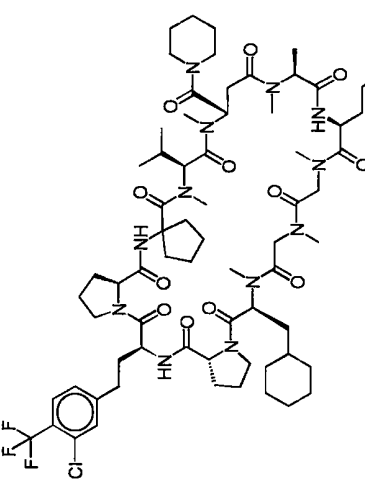
[5208]

	
126	128
	
125	127

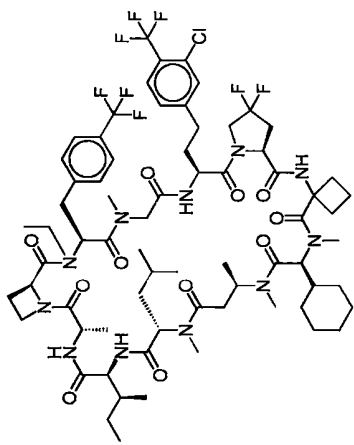
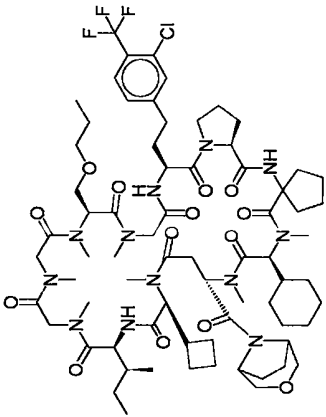
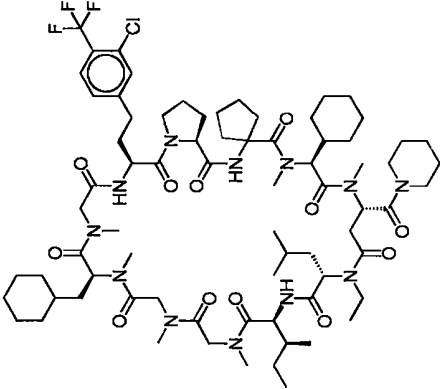
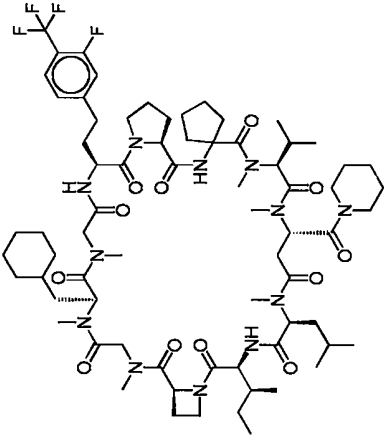
[5209]

	
130	132
	
129	131

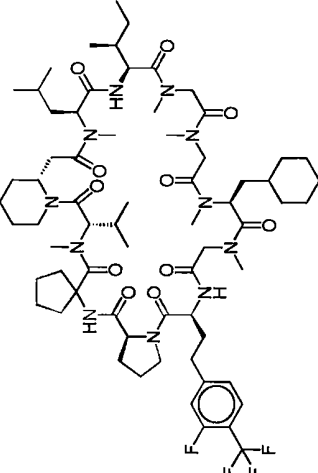
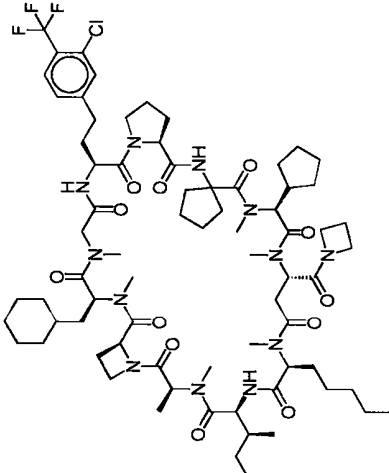
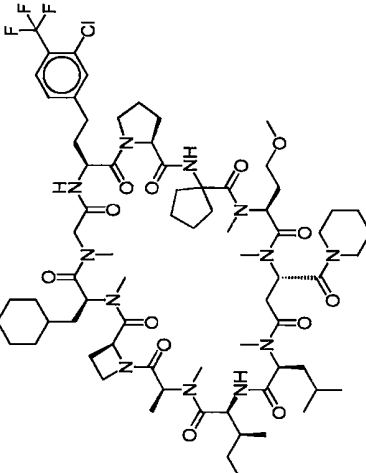
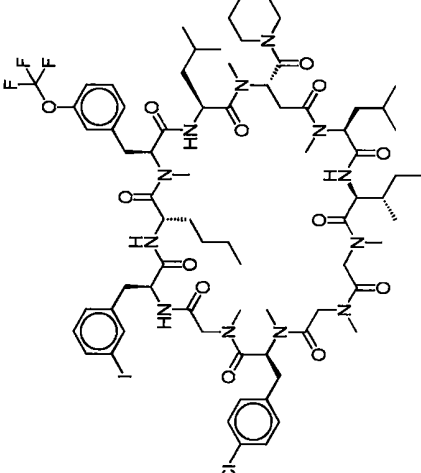
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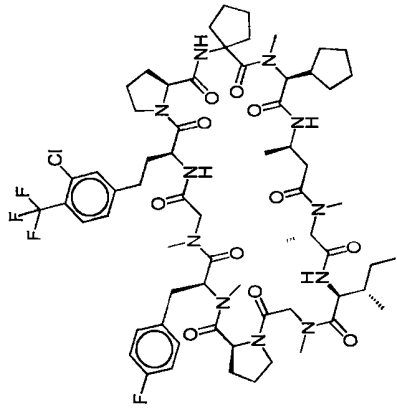
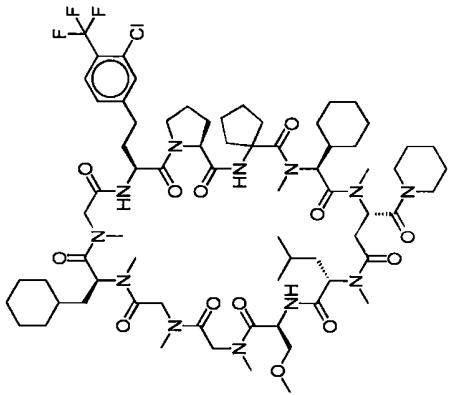
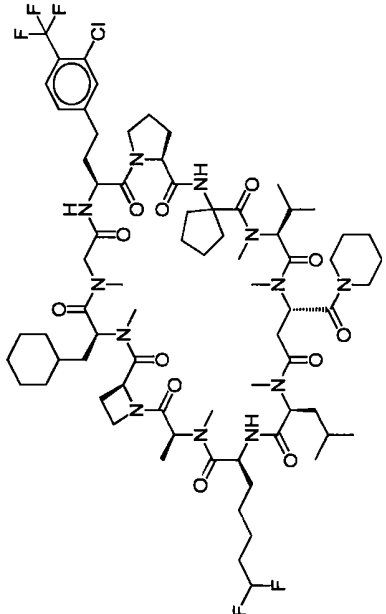
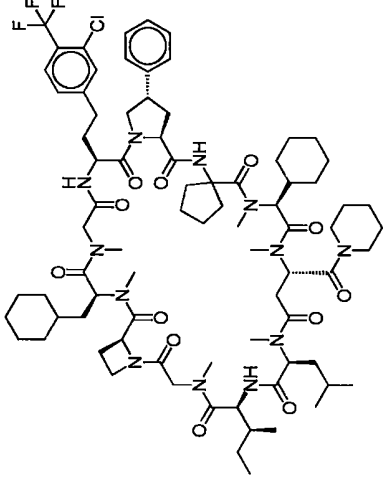
	
134	136
	
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[5211]

	
138	140
	
137	139

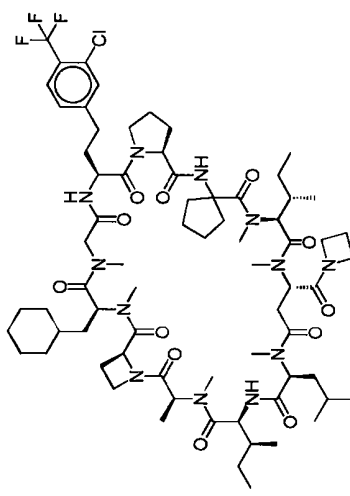
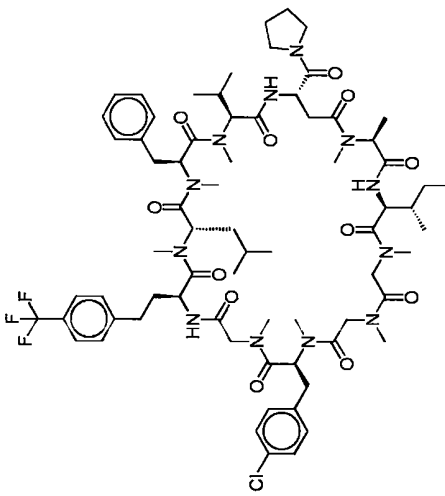
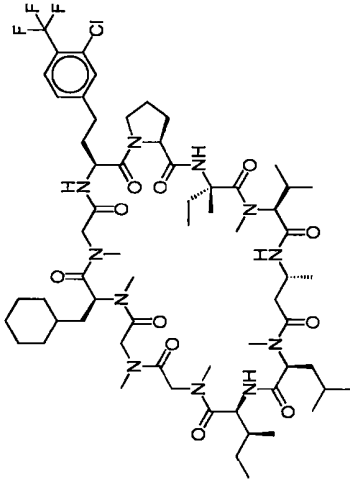
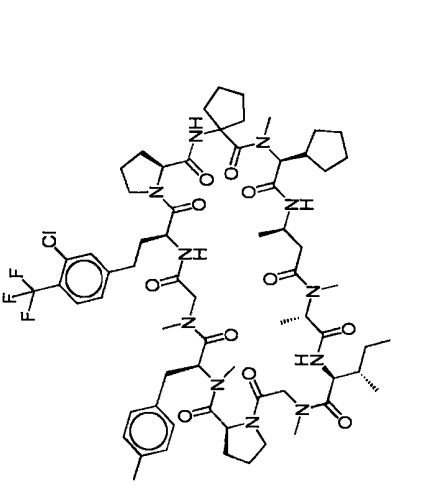
[5212]

	
142	144
	
141	143

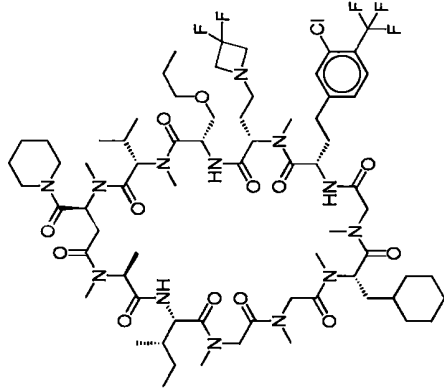
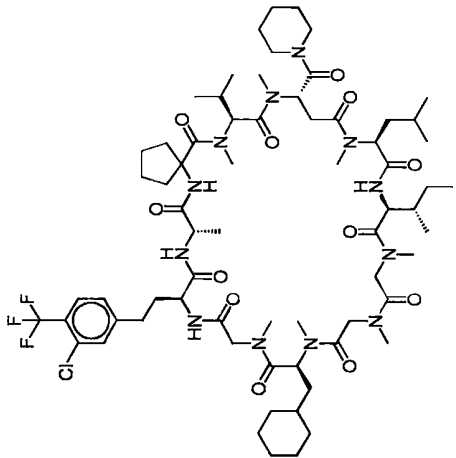
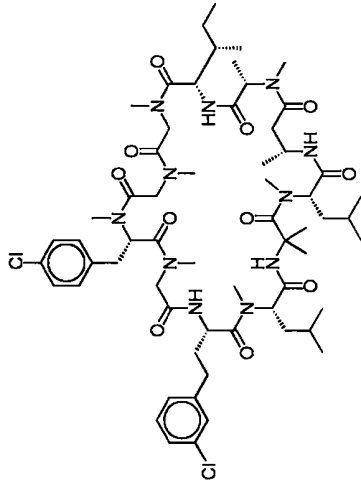
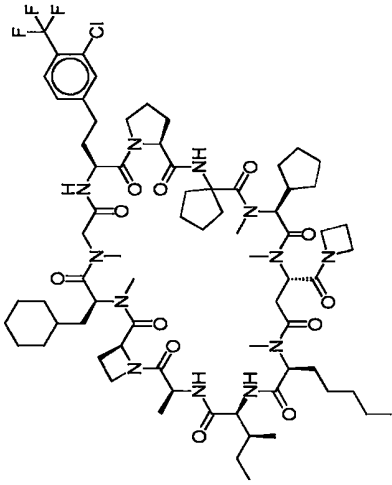
	
146	148
	
145	147

[5213]

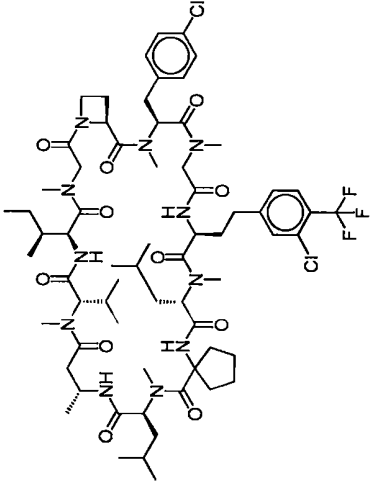
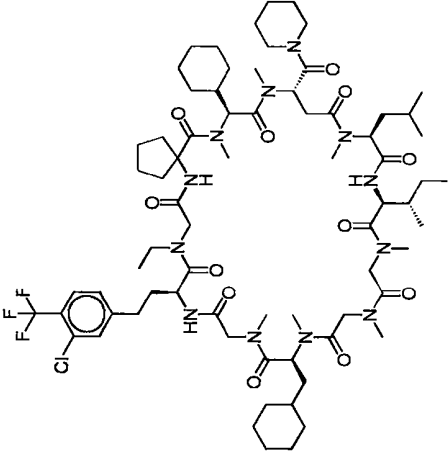
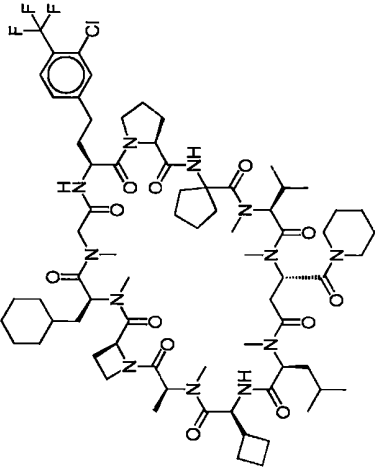
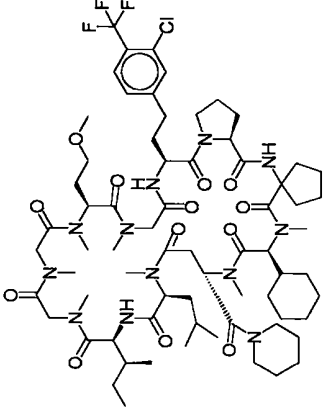
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150	152
	
149	151

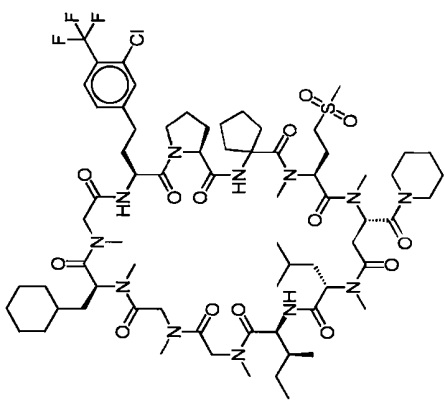
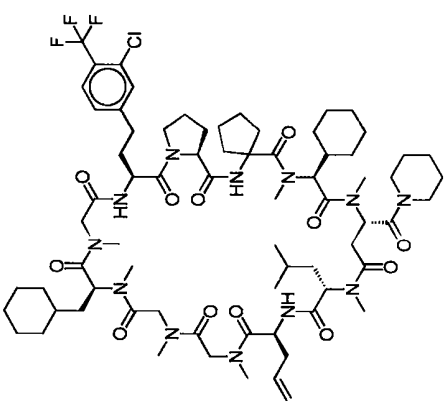
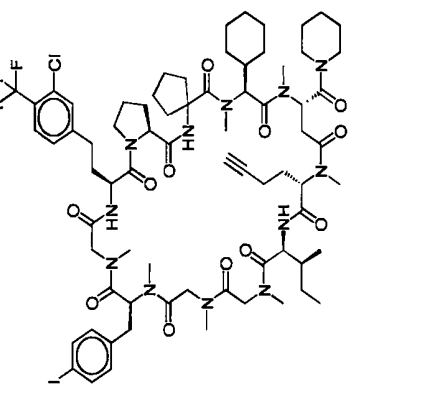
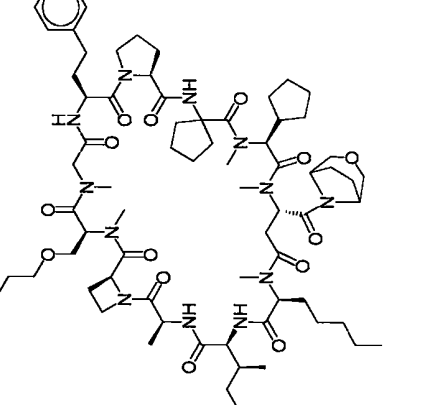
[5215]

	
154	156
	
153	155

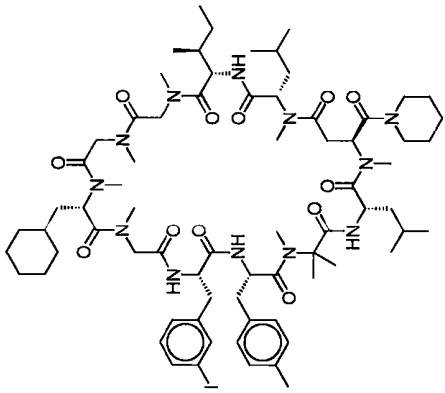
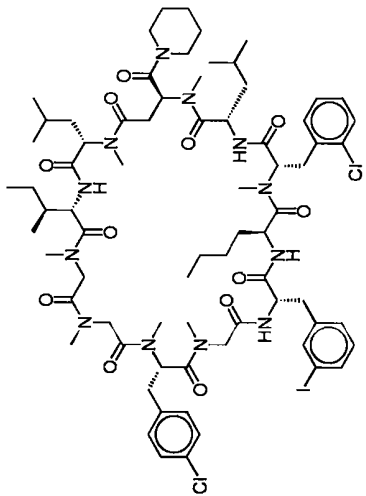
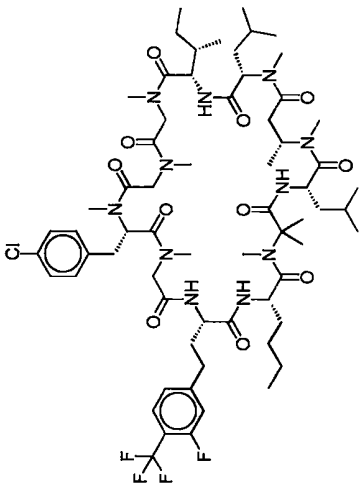
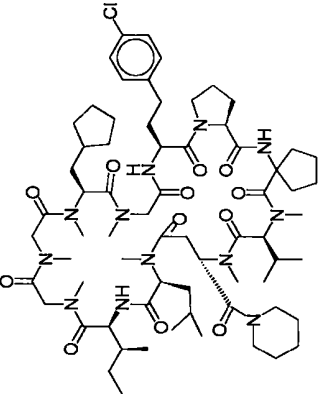
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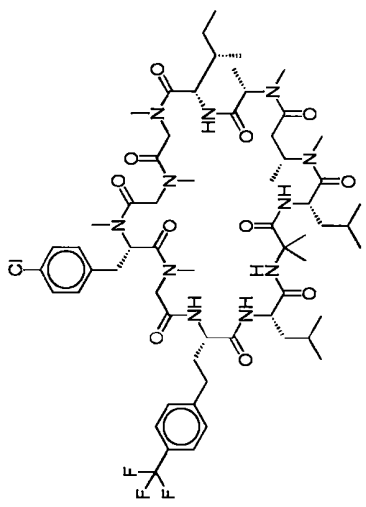
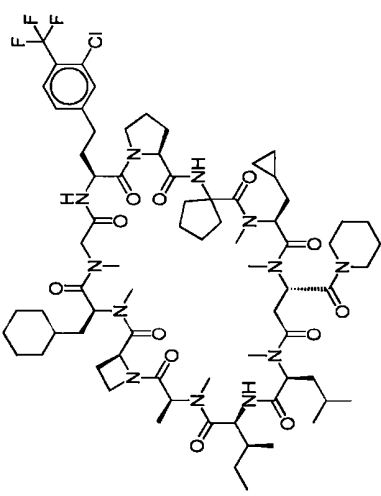
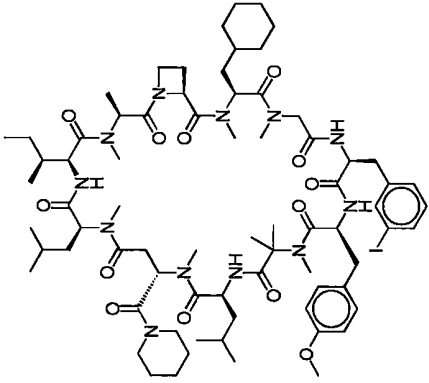
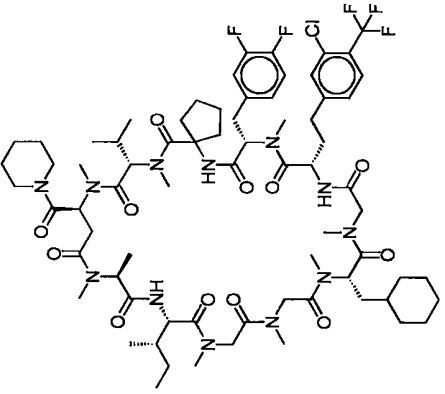
	
158	160
	
157	159

[5217]

	
162	164
	
161	163

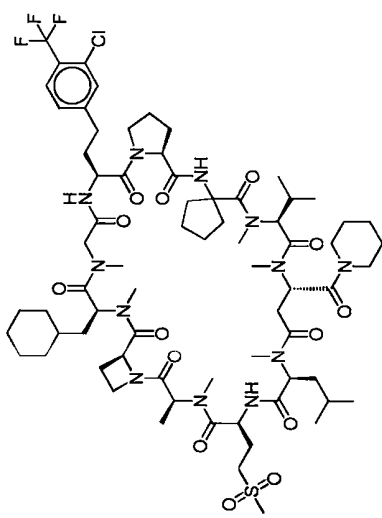
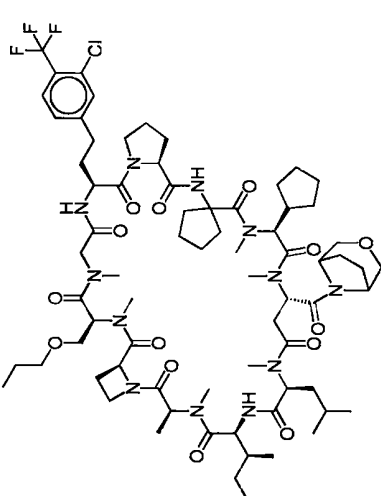
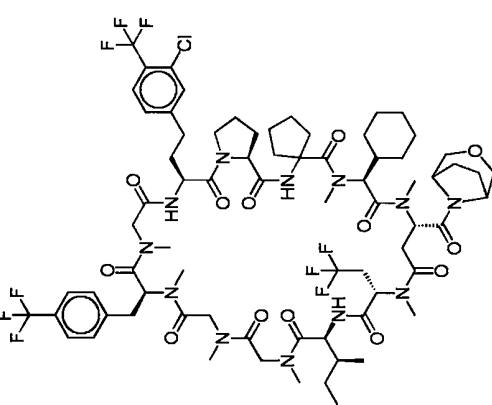
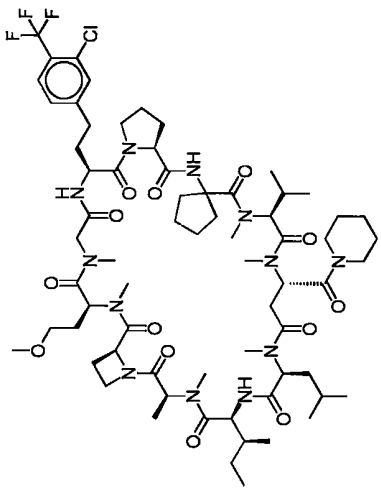
[5218]

	
166	168
	
165	167

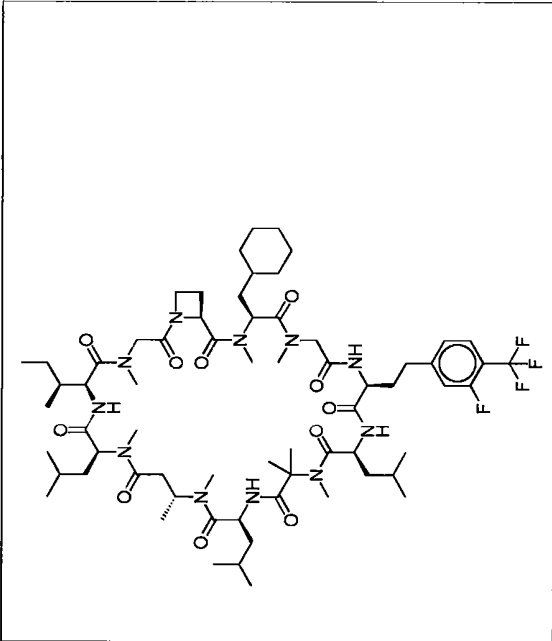
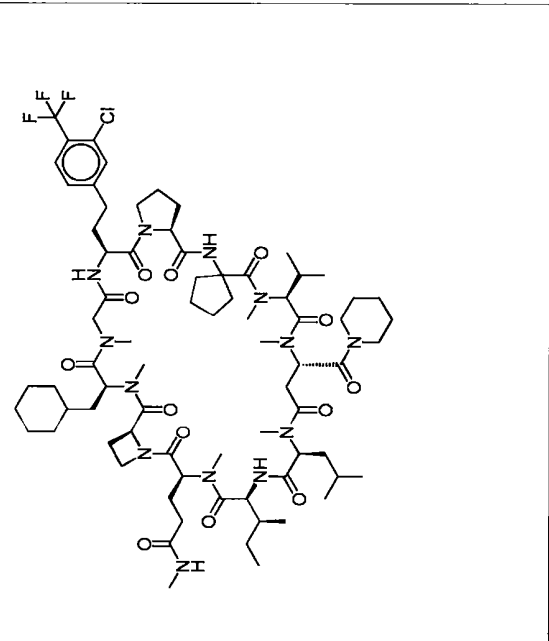
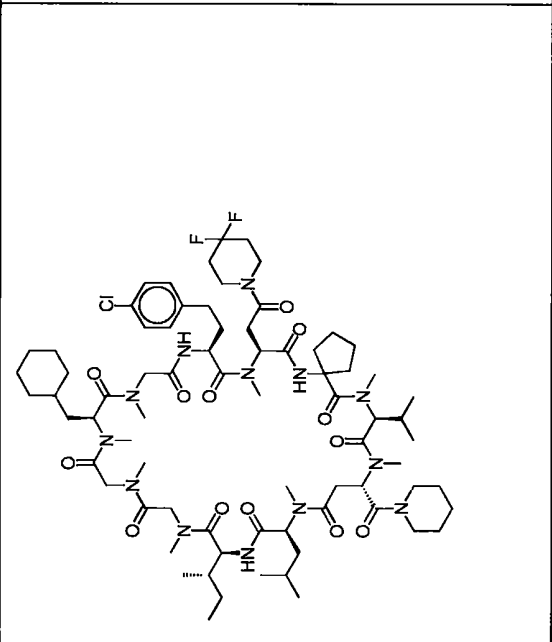
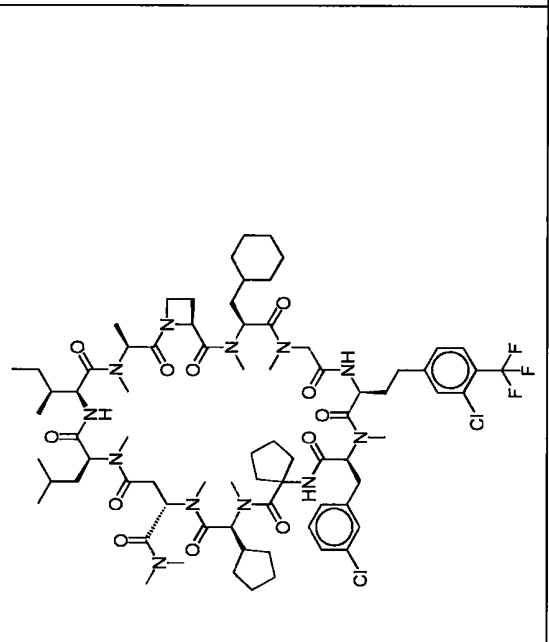
	
170	172
	
169	171

[5219]

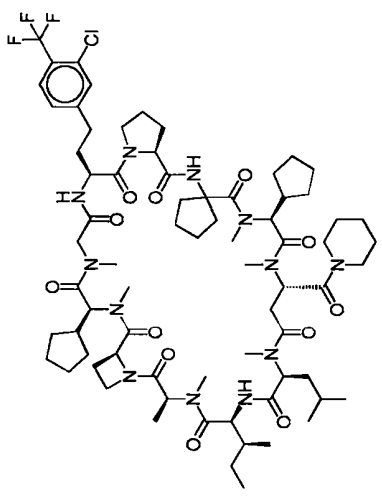
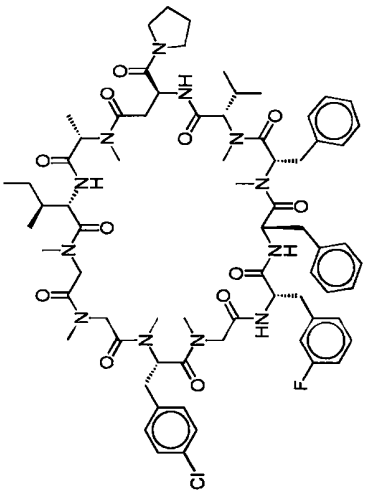
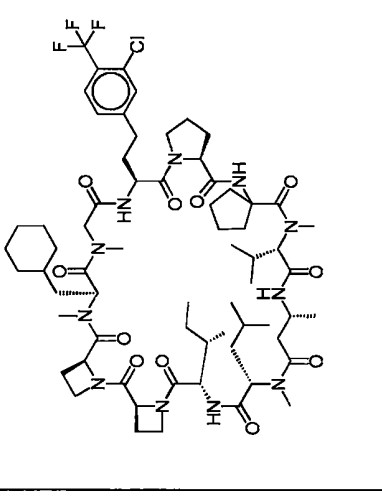
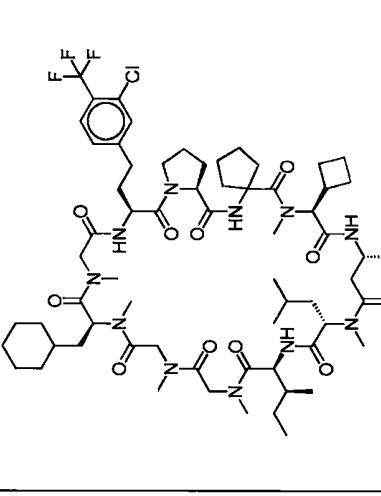
[5220]

	
174	176
	
173	175

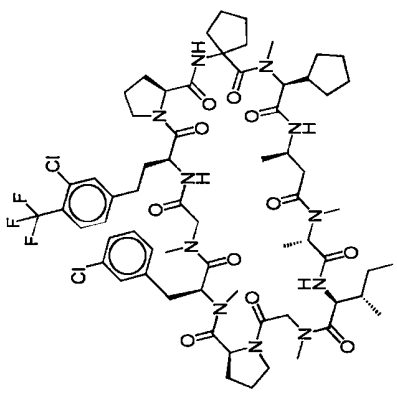
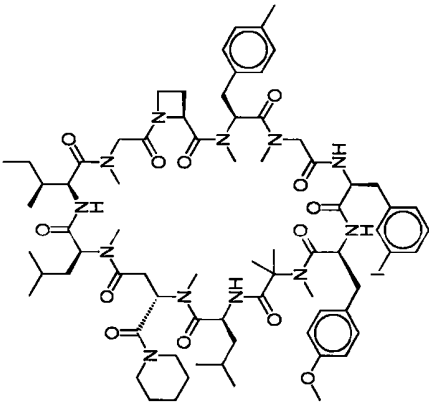
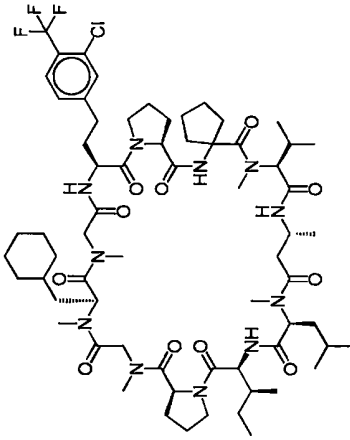
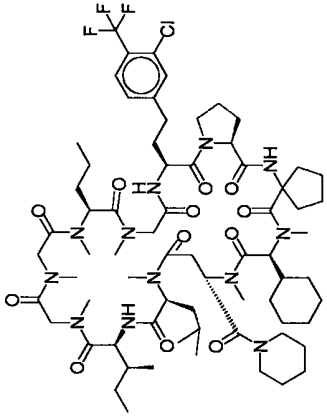
[5221]

	
178	180
	
177	179

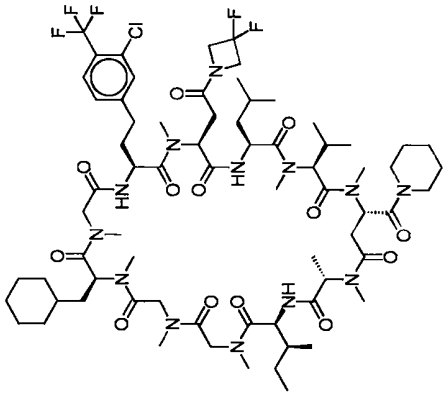
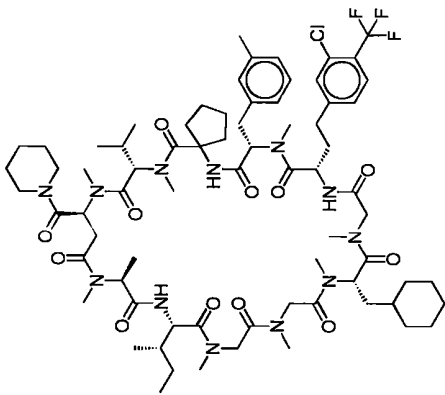
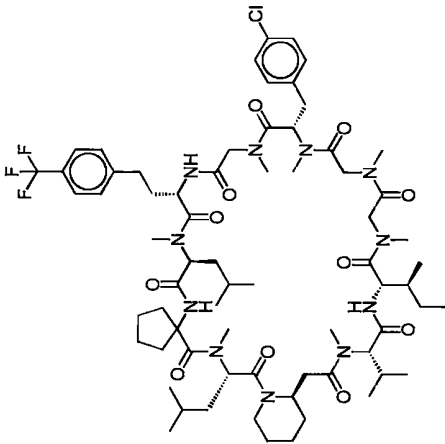
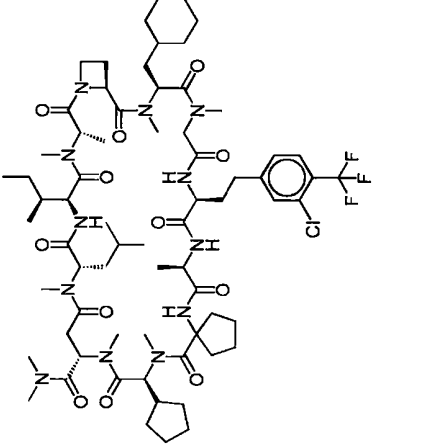
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182	184
	
181	183

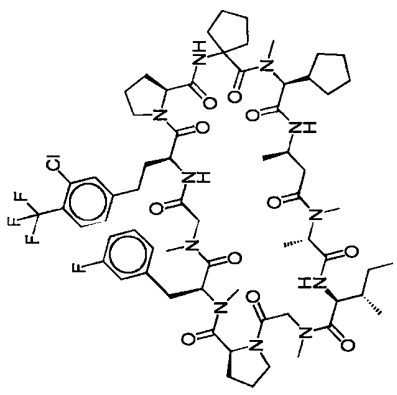
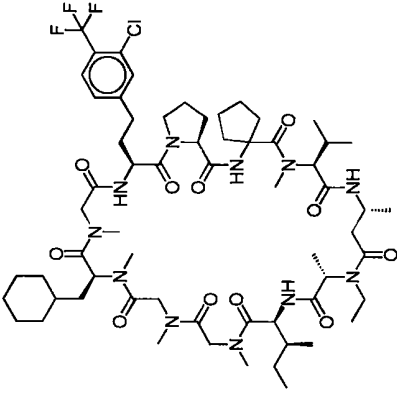
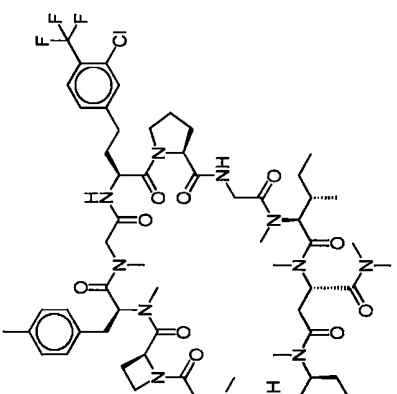
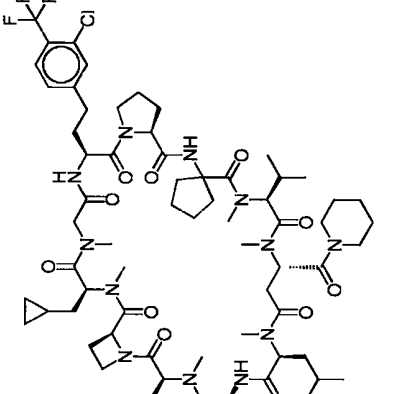
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186	188
	
185	187

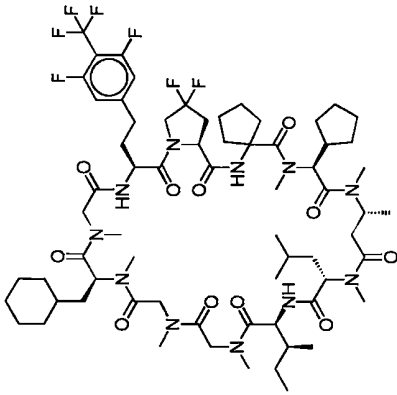
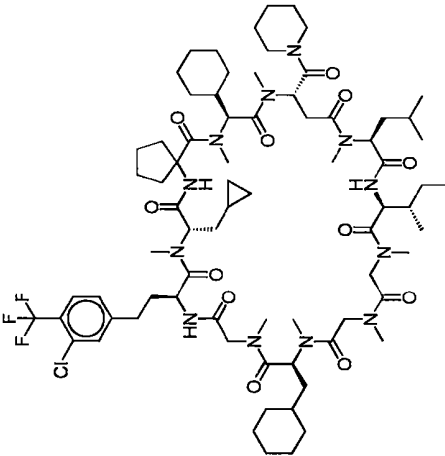
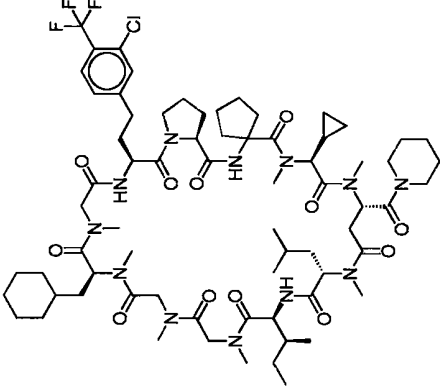
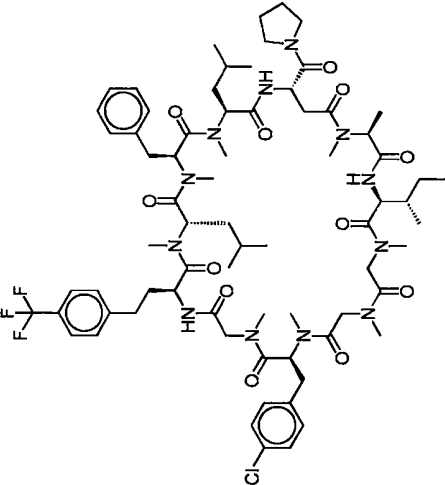
[5224]

	
190	192
	
189	191

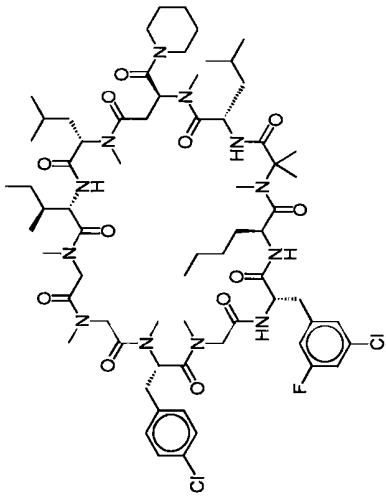
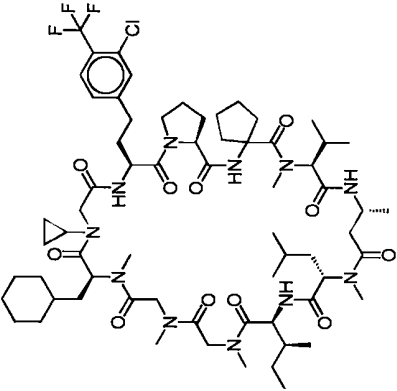
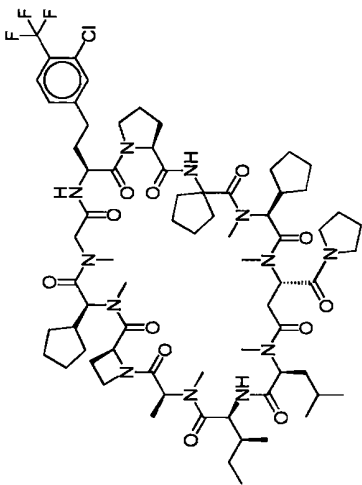
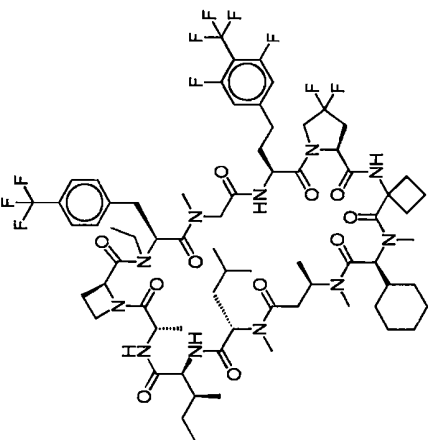
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194	196
	
193	195

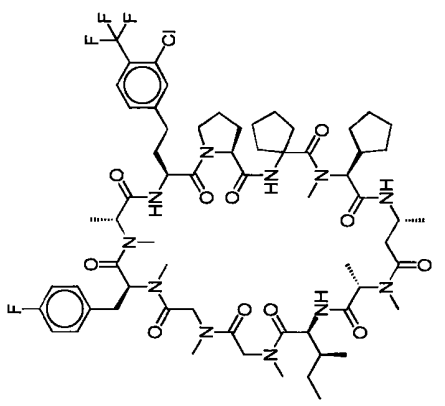
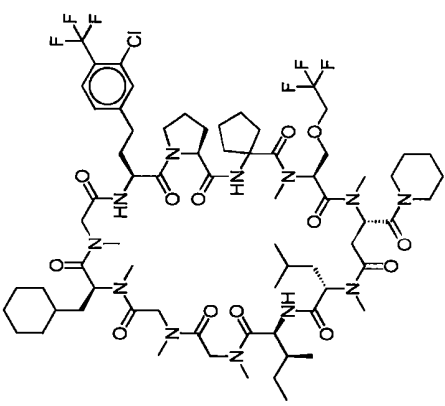
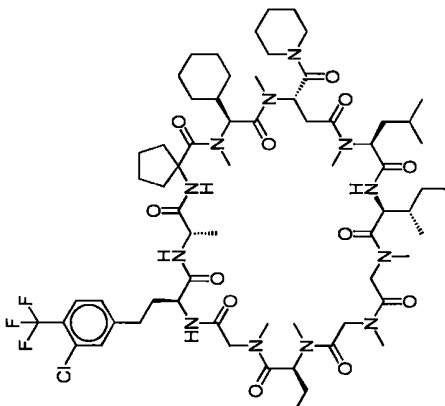
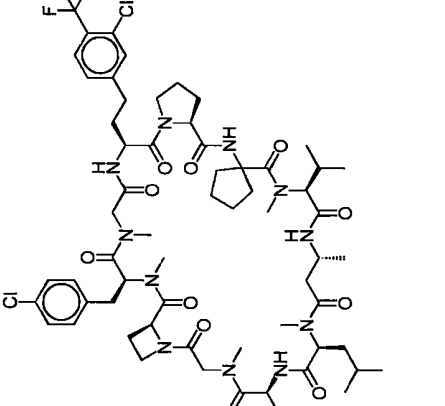
[5226]

	
198	200
	
197	199

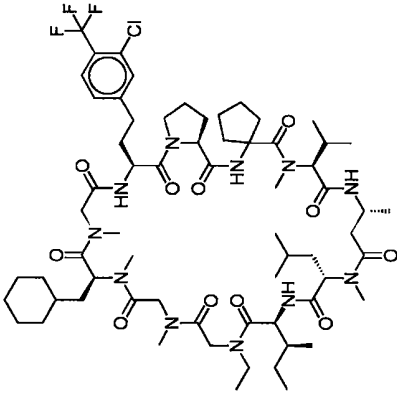
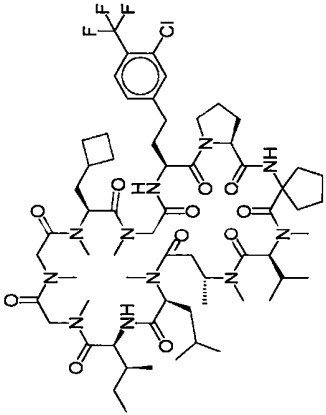
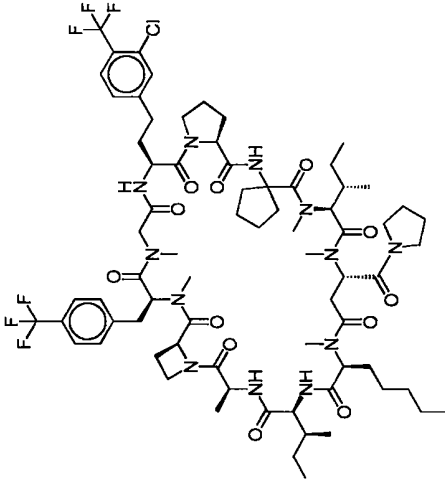
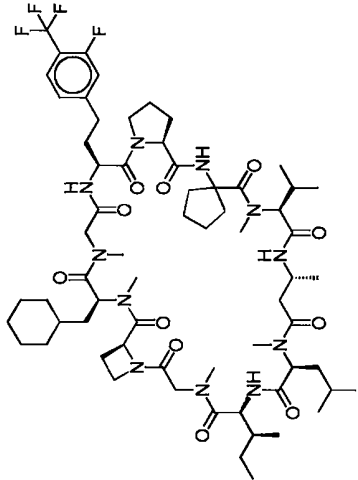
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202	204
	
201	203

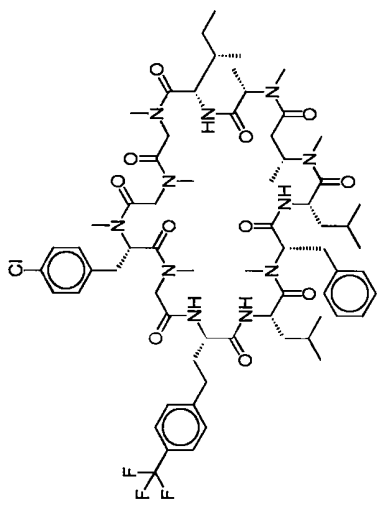
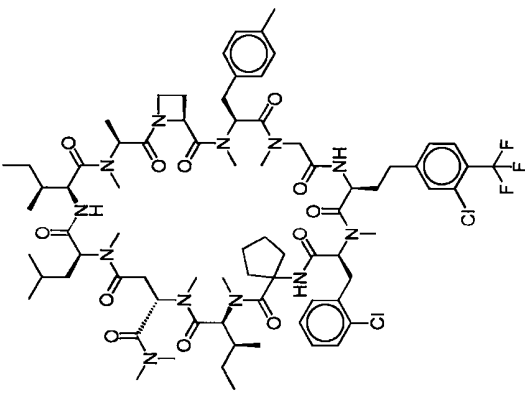
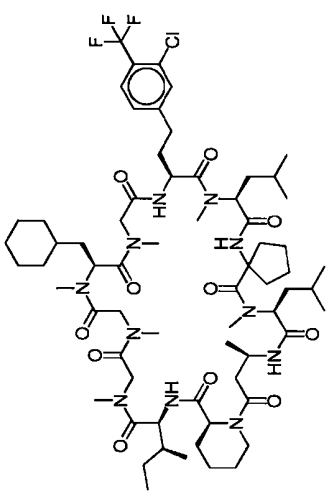
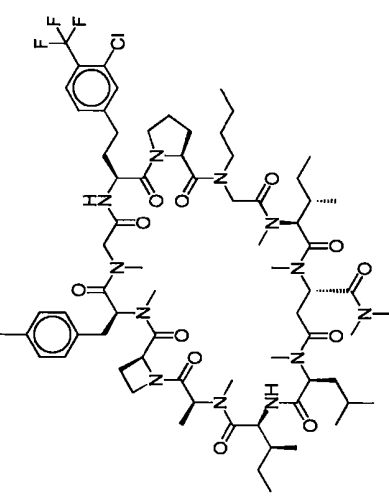
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206	208
	
205	207

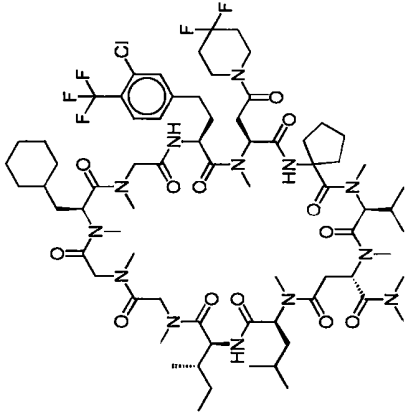
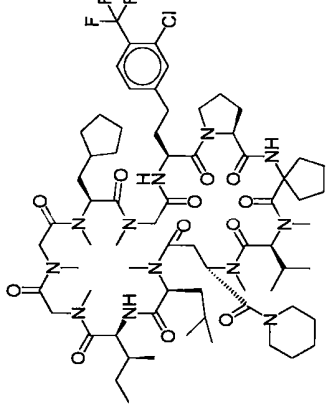
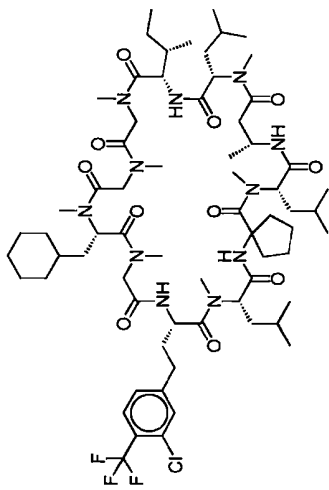
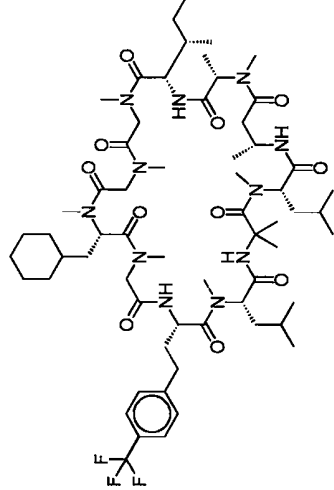
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210	212
	
209	211

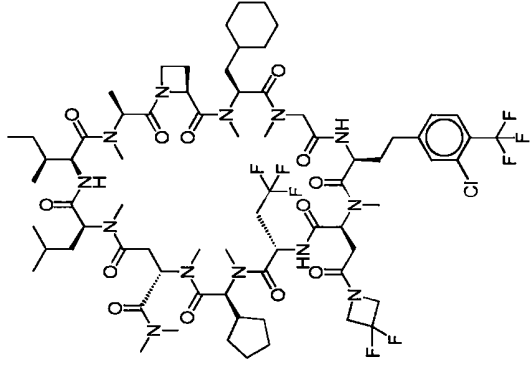
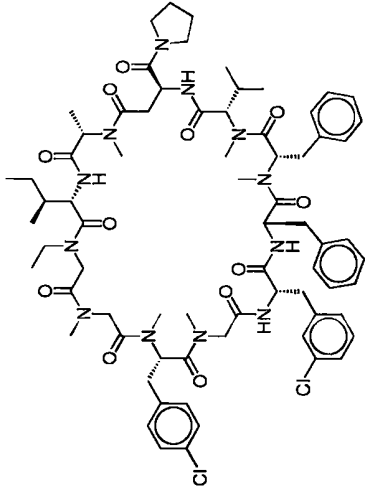
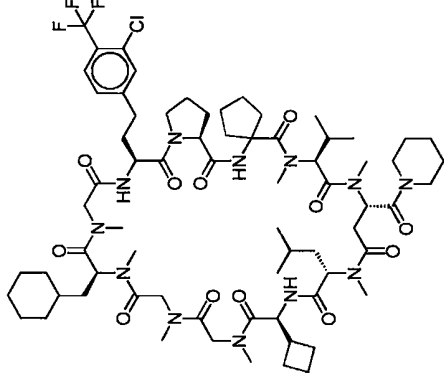
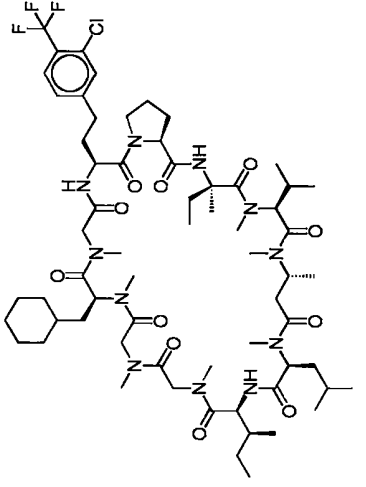
[5230]

	
214	216
	
213	215

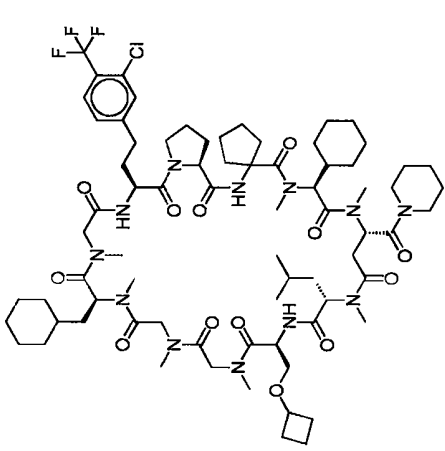
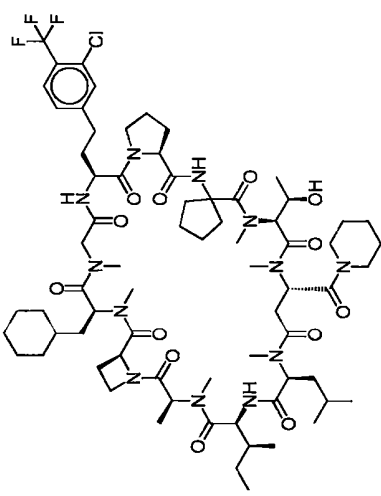
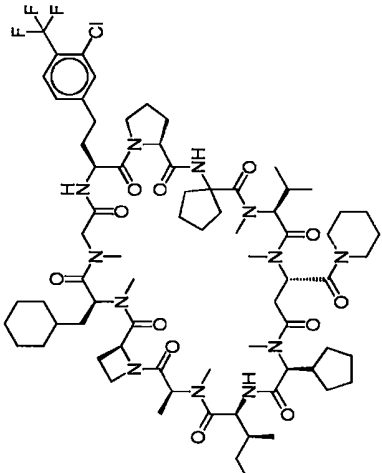
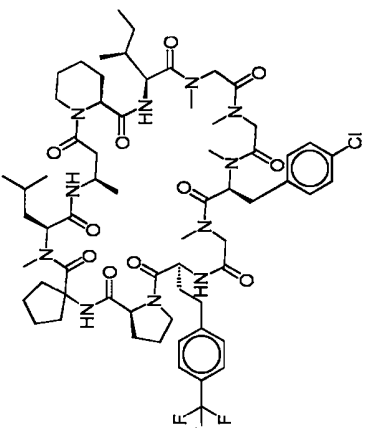
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218	220
	
217	219

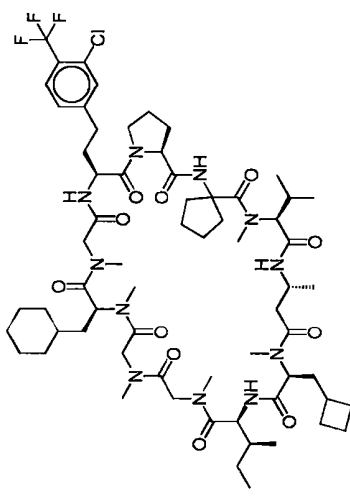
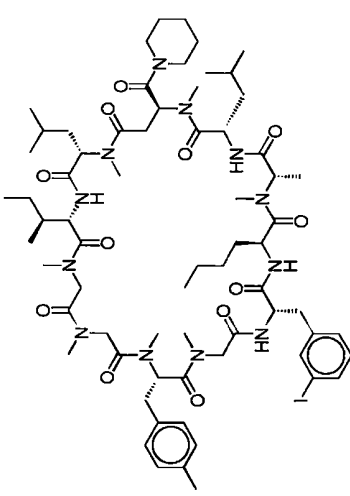
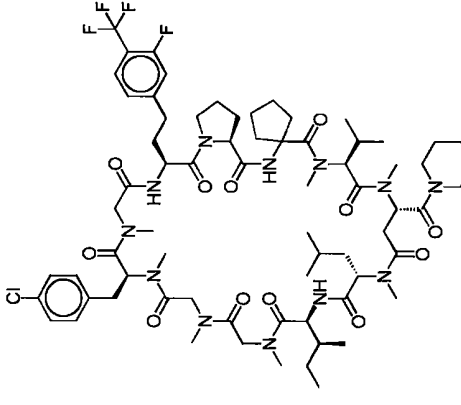
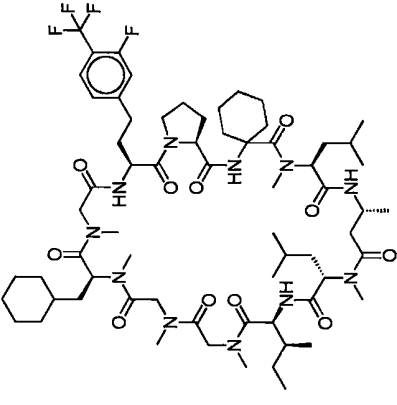
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222	224
	
221	223

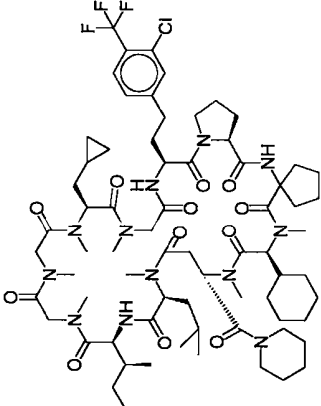
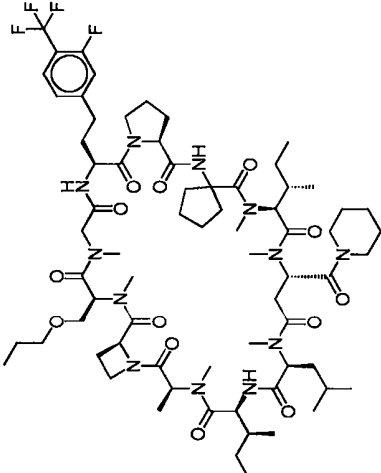
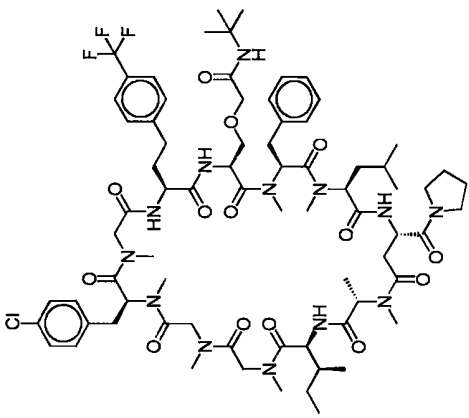
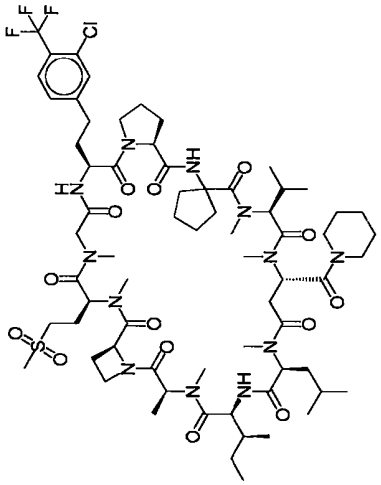
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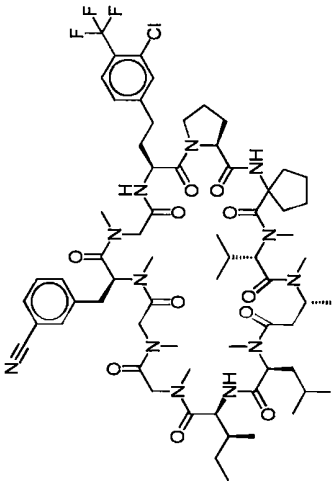
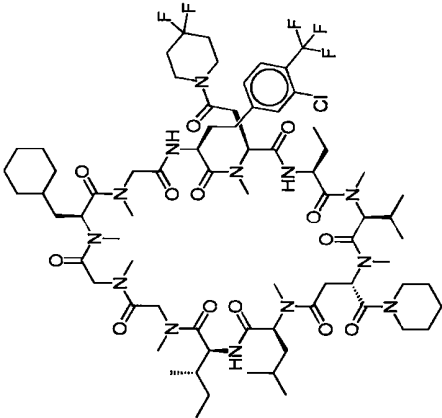
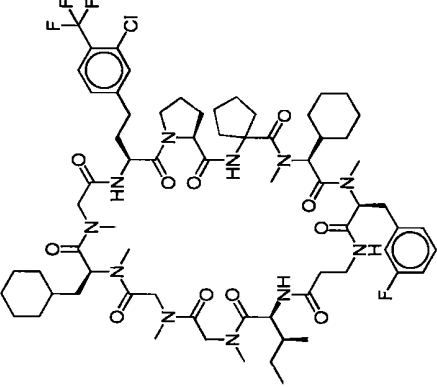
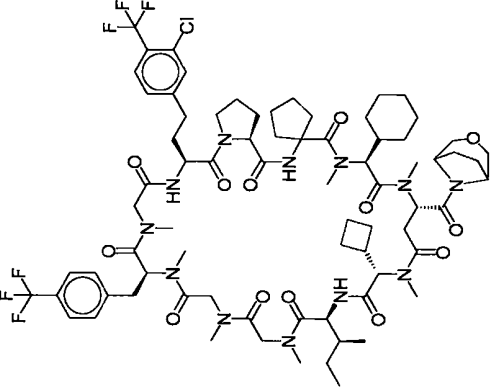
	
226	228
	
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[5234]

	
230	232
	
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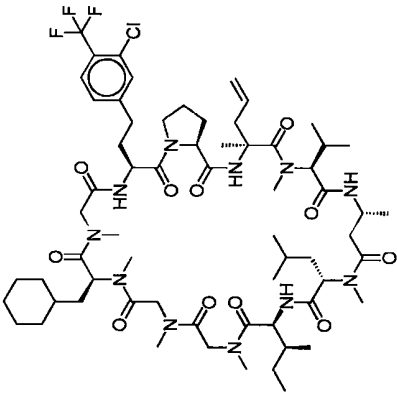
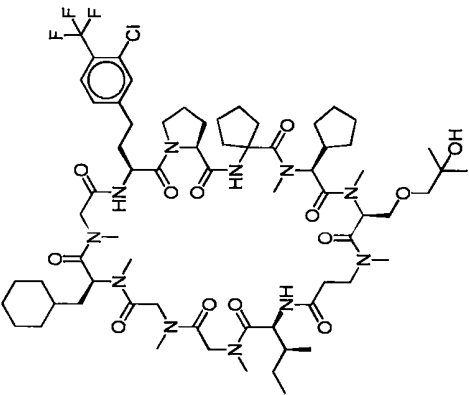
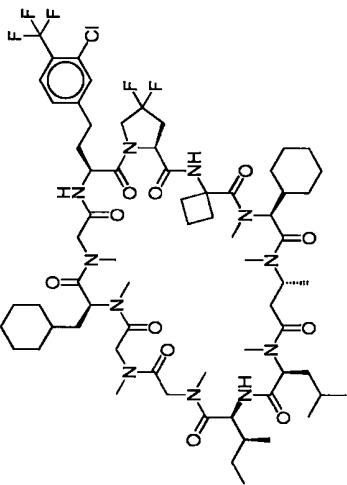
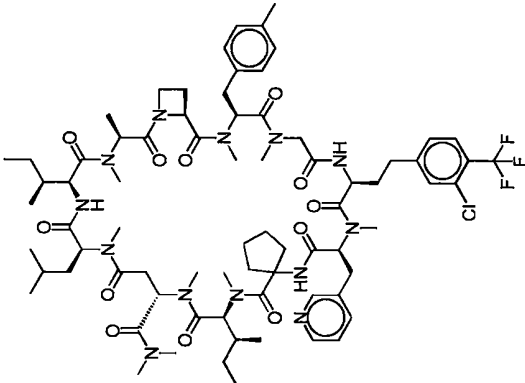
[5235]

	
234	236
	
233	235

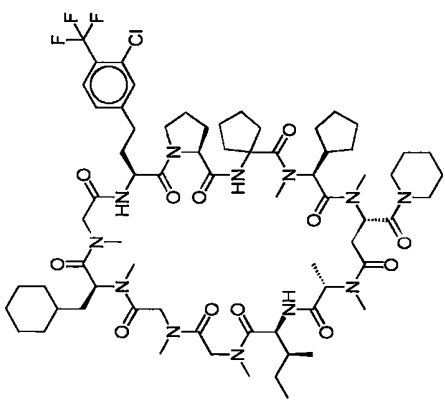
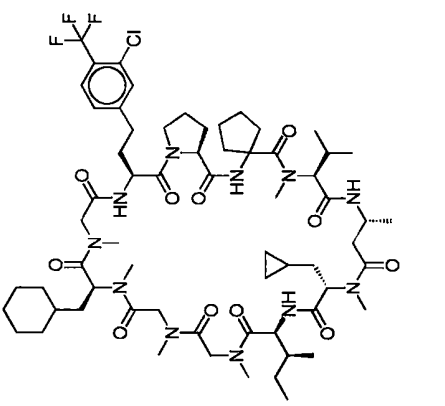
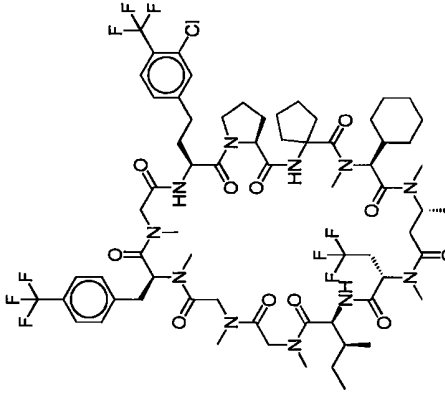
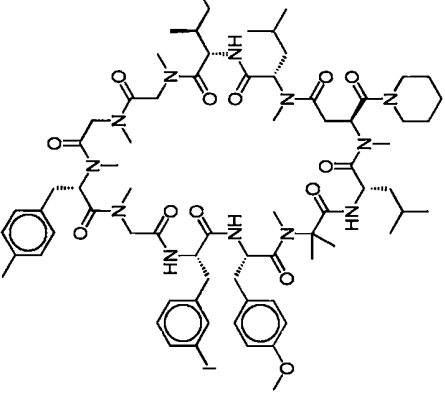
	
238	240
	
237	239

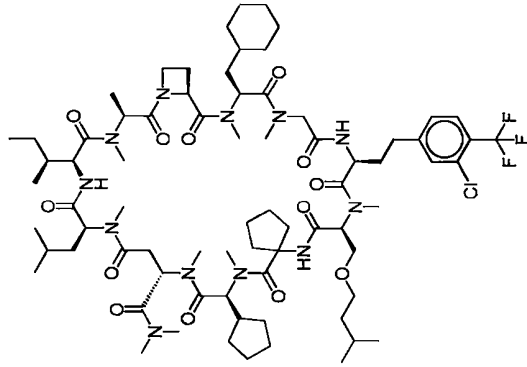
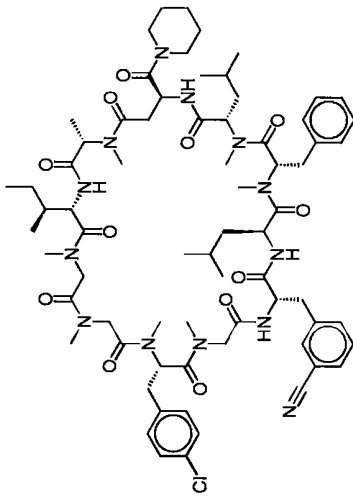
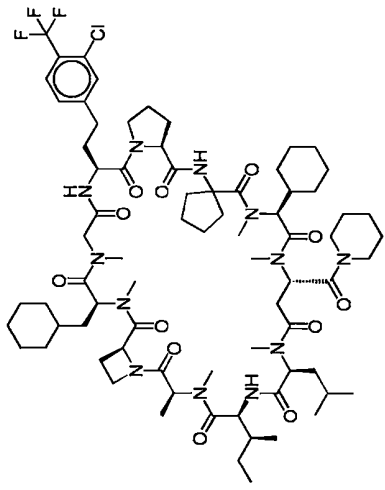
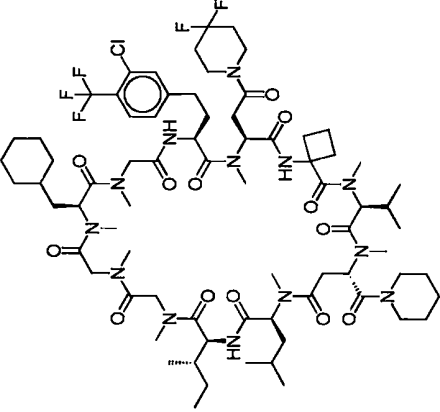
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[5237]

	
242	244
	
241	243

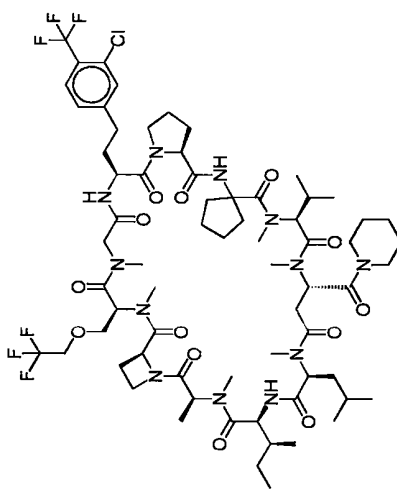
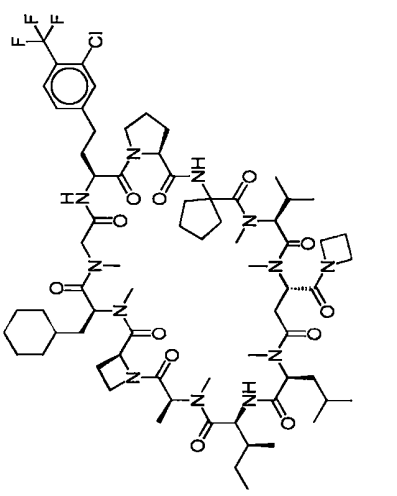
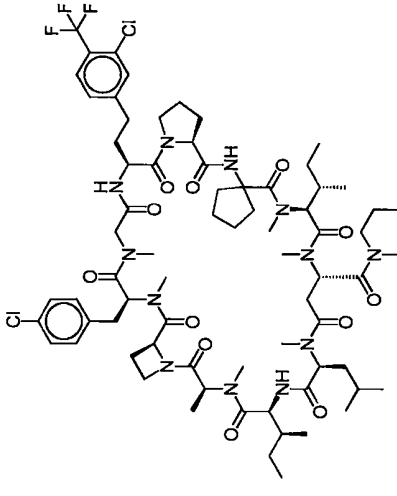
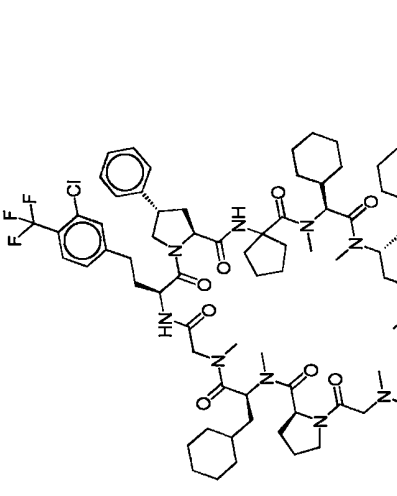
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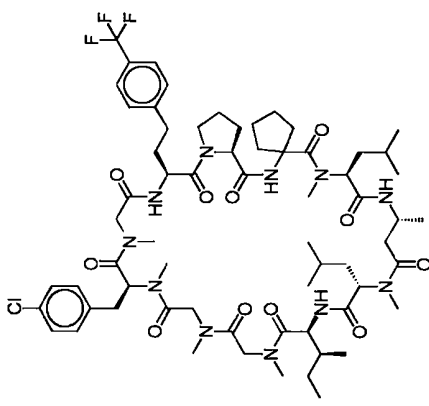
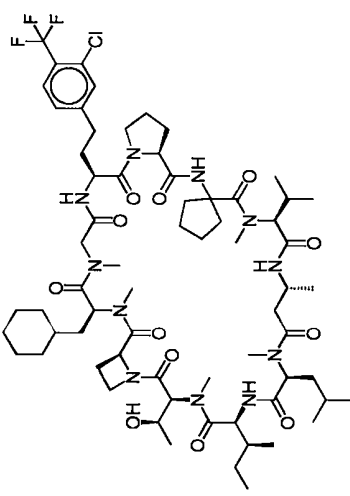
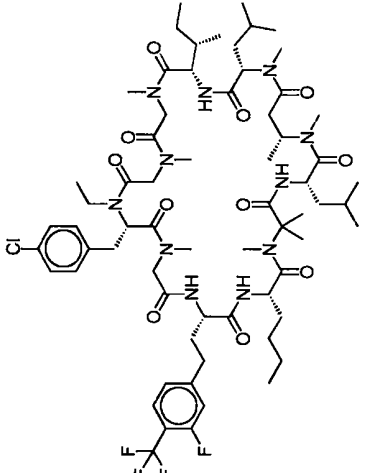
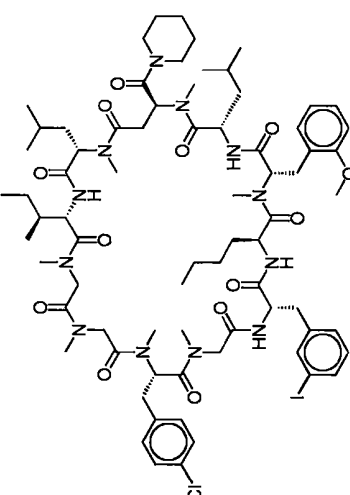
	
246	248
	
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[5239]

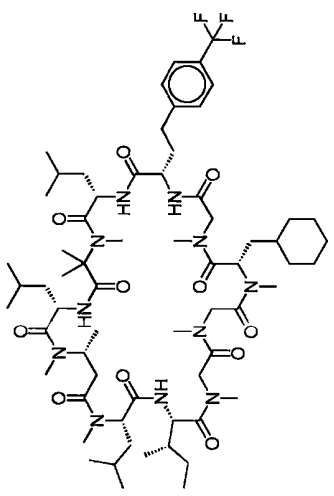
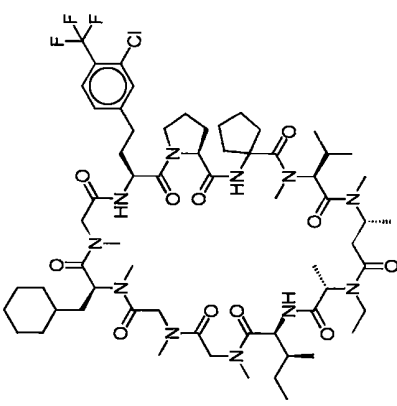
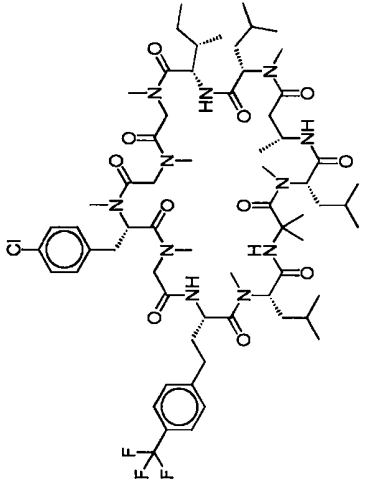
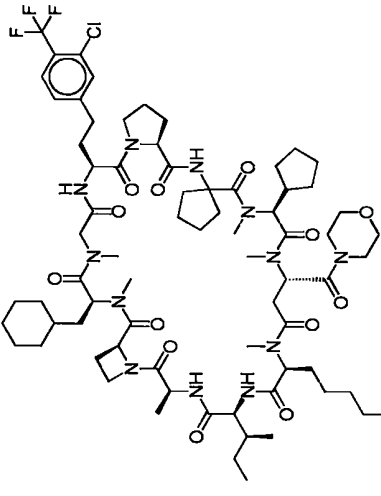
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254	256
	
253	255

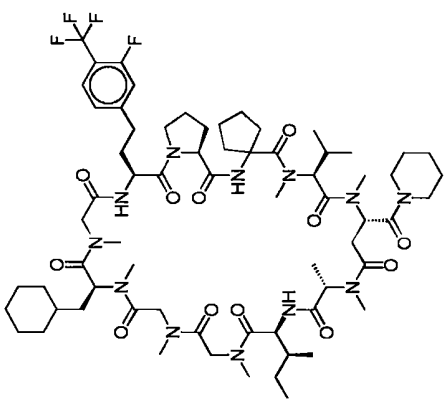
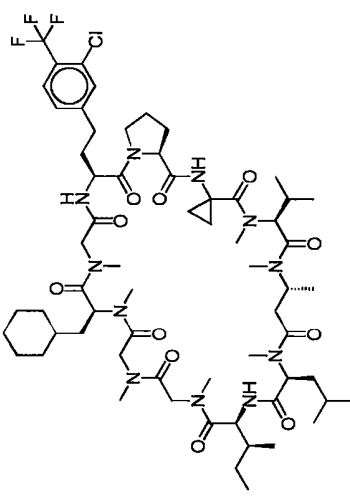
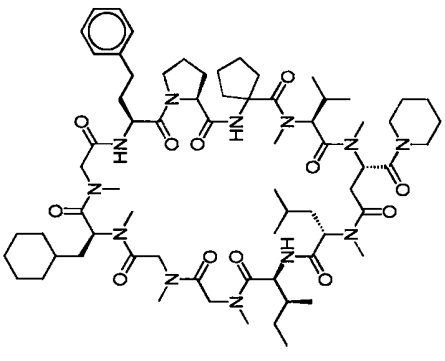
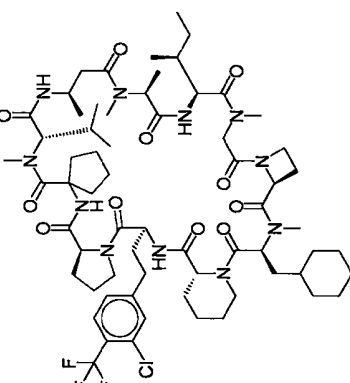
	
258	260
	
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[5241]

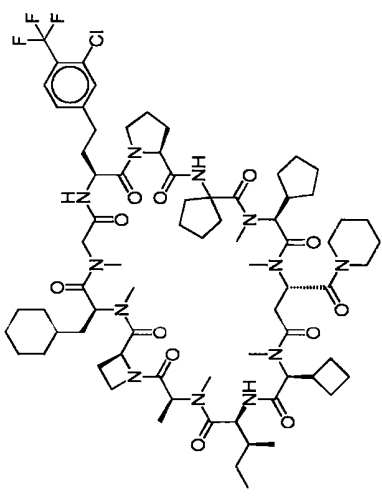
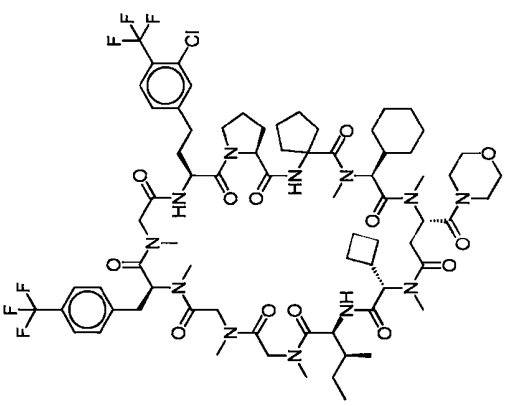
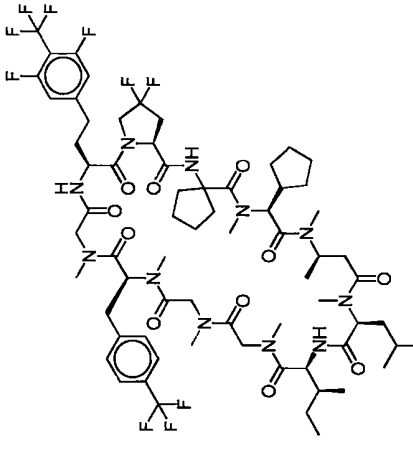
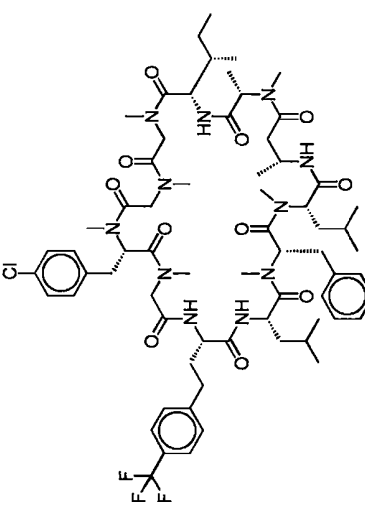
[5242]

	
262	264
	
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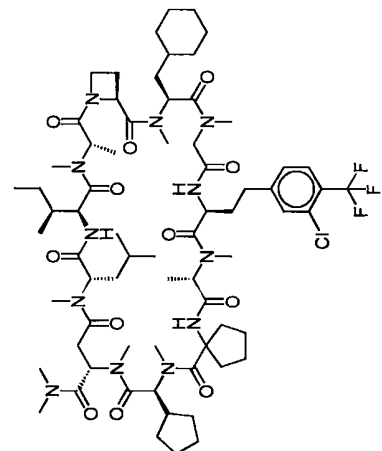
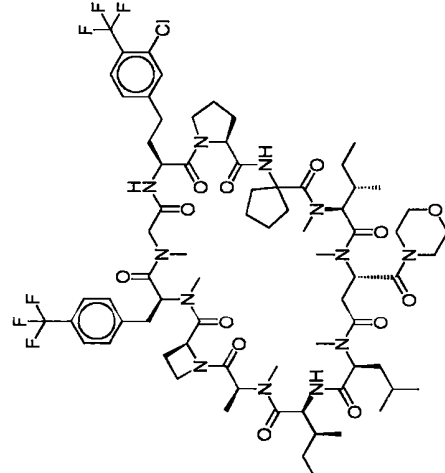
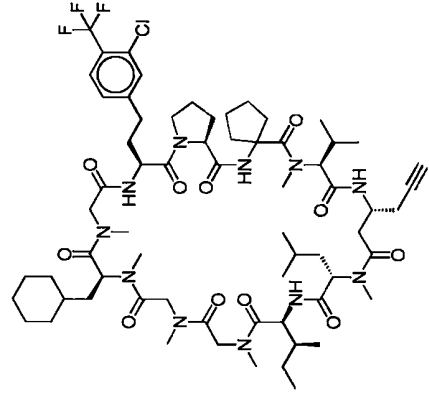
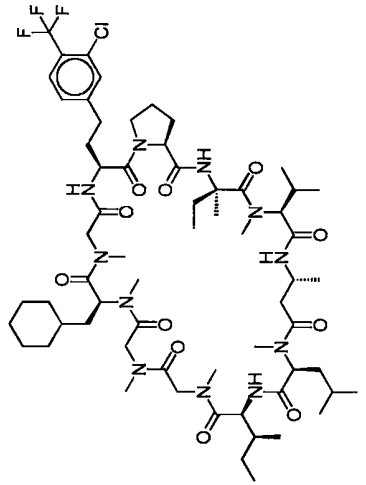
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266	268
	
265	267

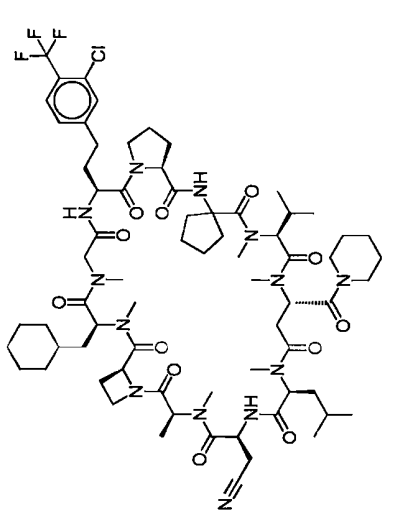
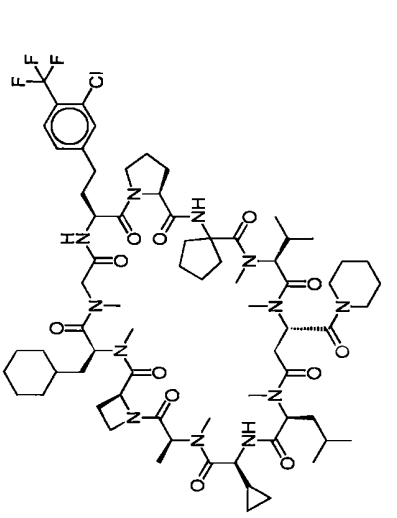
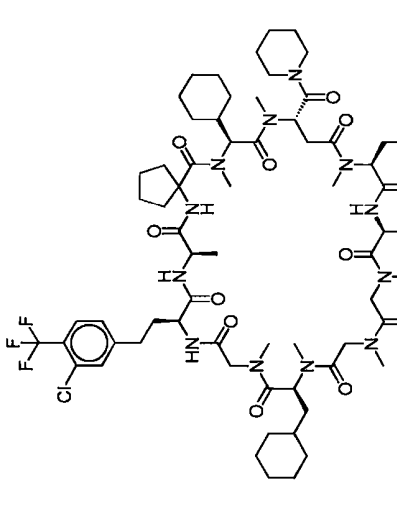
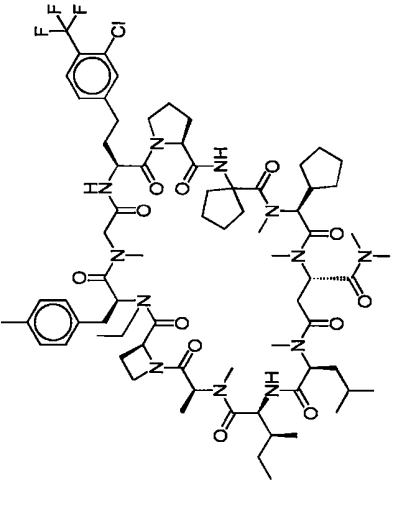
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270	272
	
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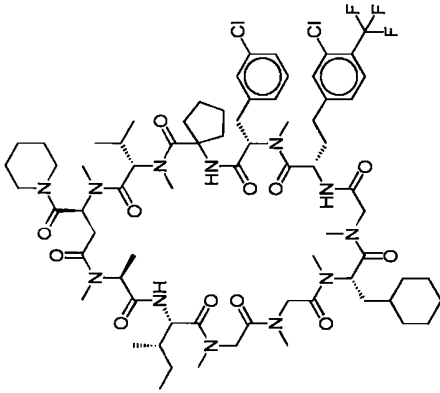
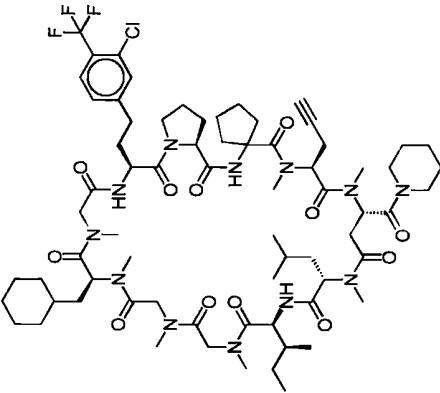
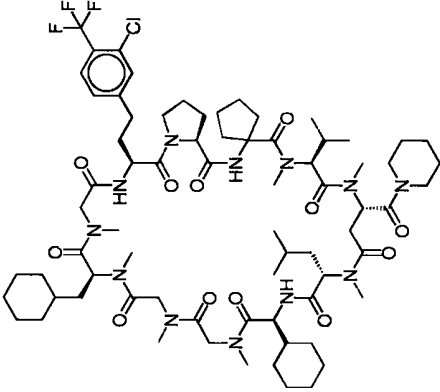
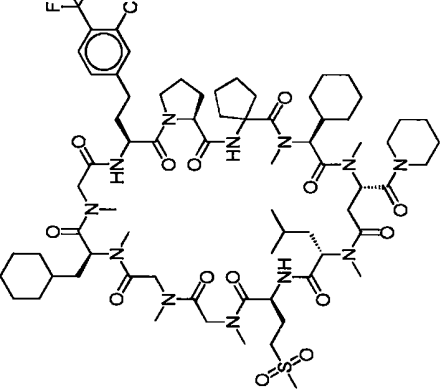
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274	276
	
273	275

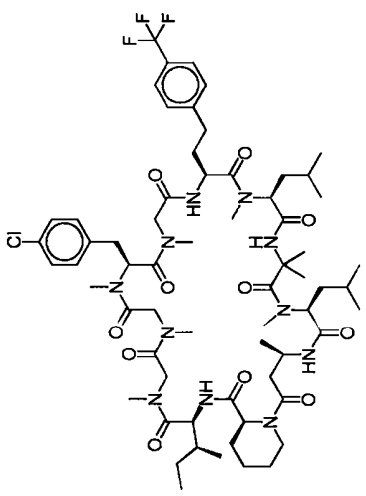
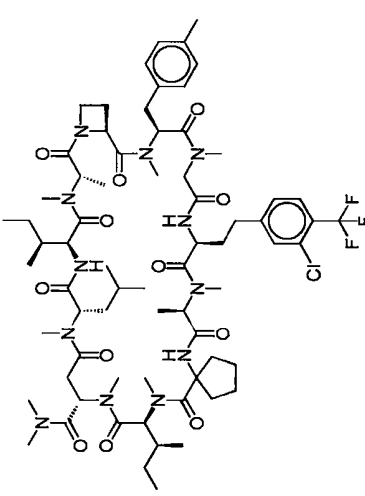
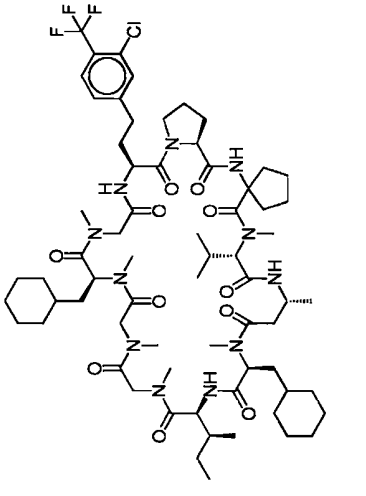
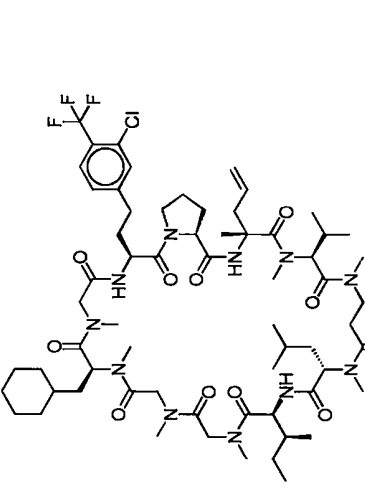
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278	280
	
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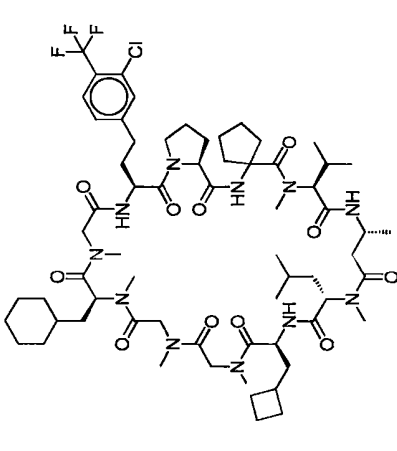
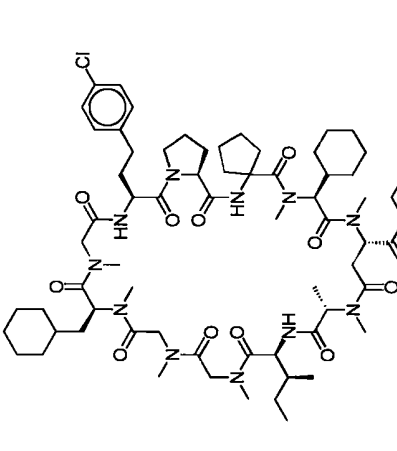
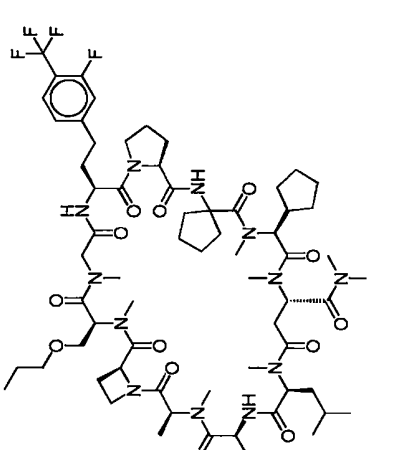
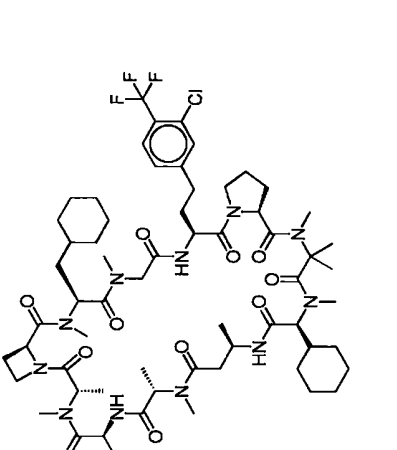
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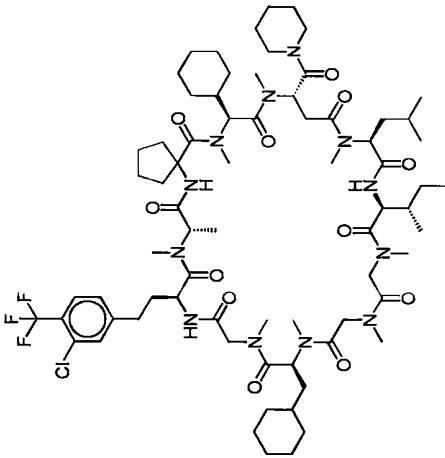
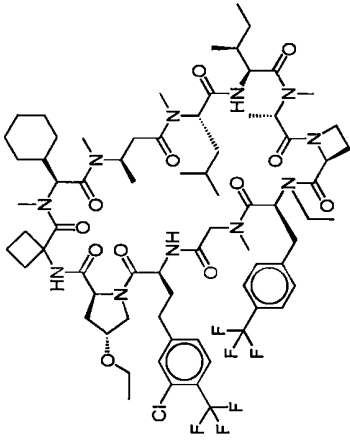
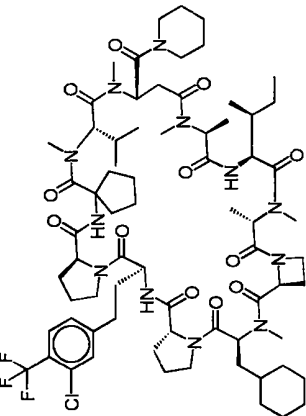
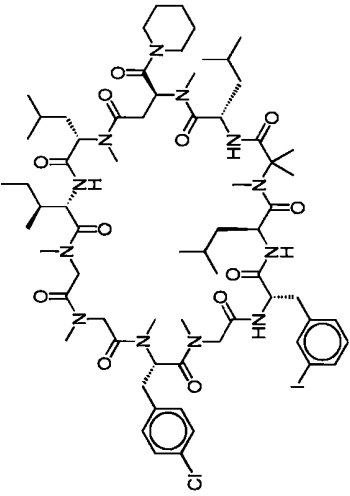
	
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[5248]

	
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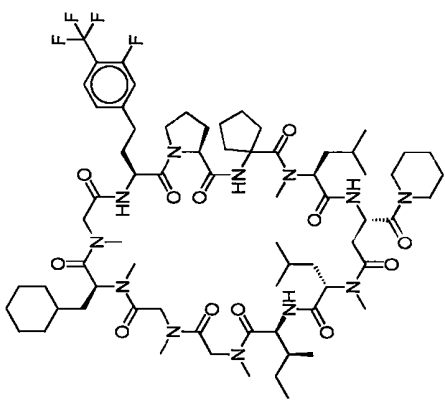
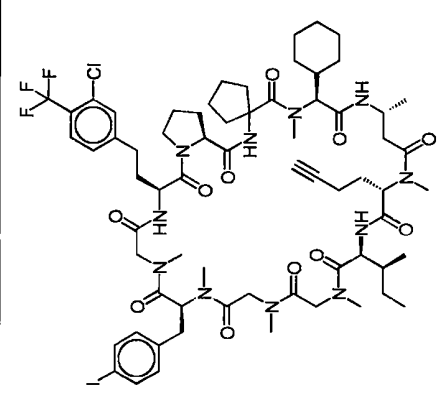
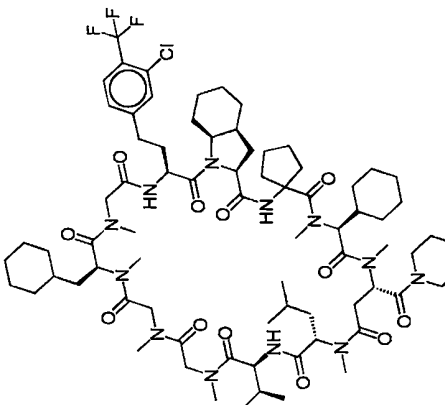
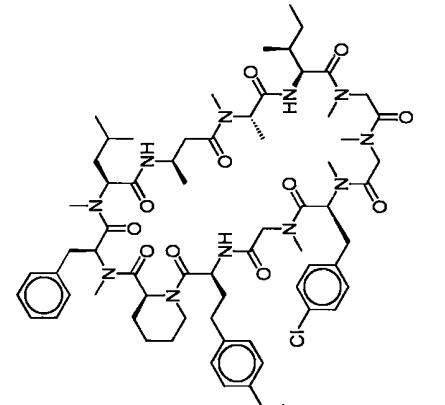
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290	292
	
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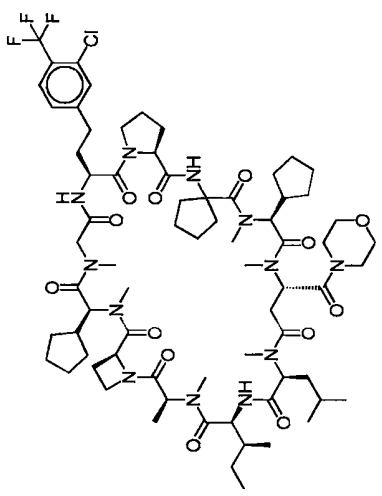
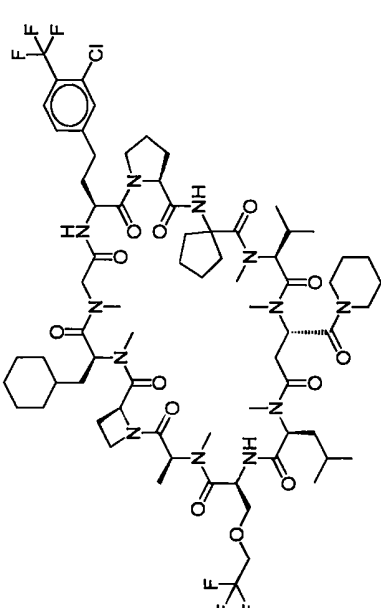
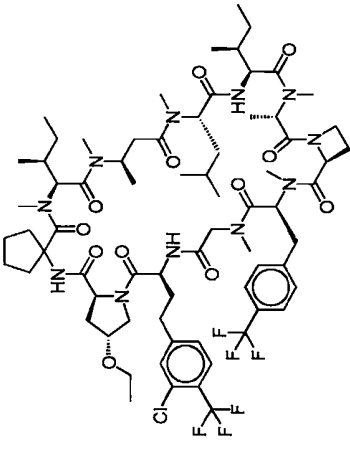
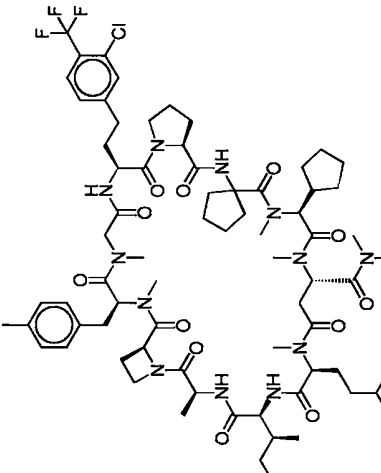
	
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[5250]

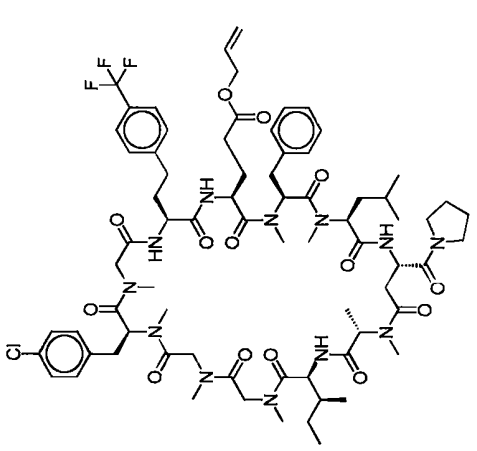
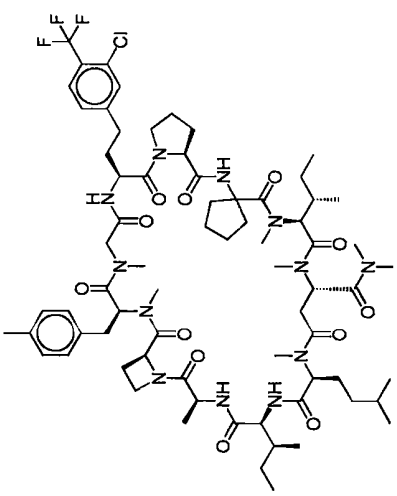
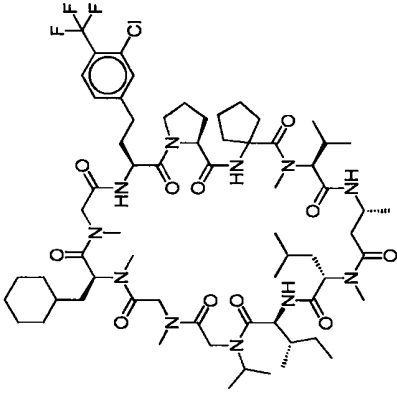
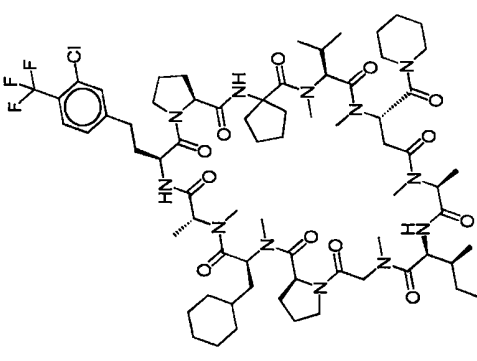
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298	300
	
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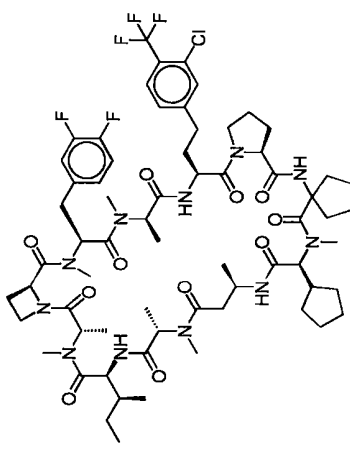
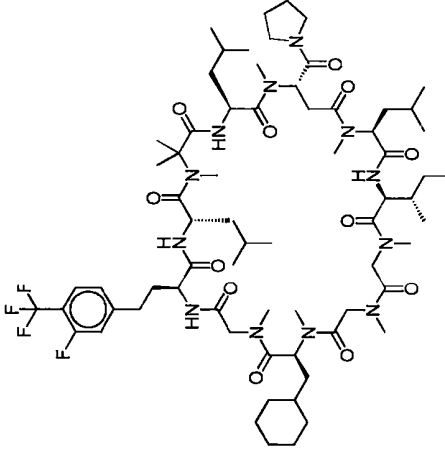
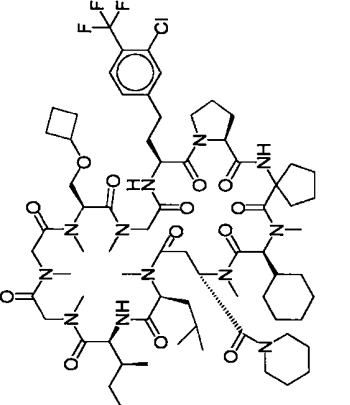
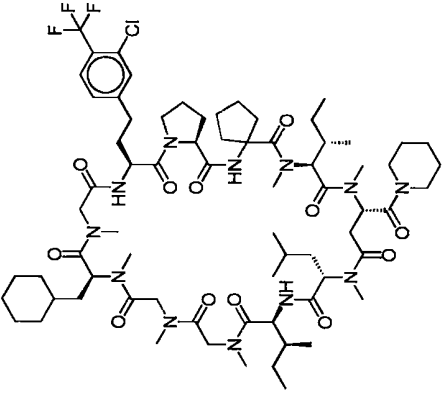
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302	304
	
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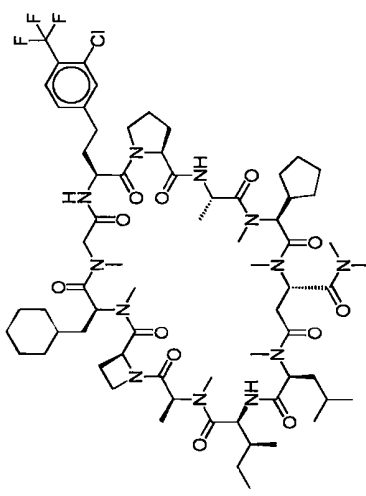
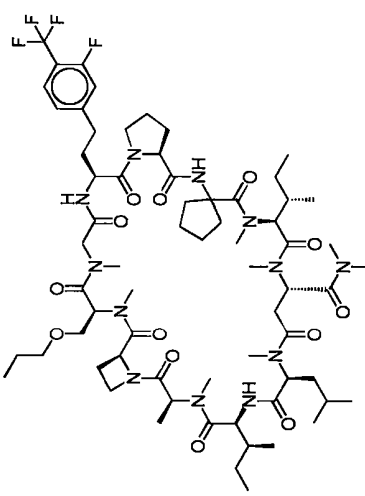
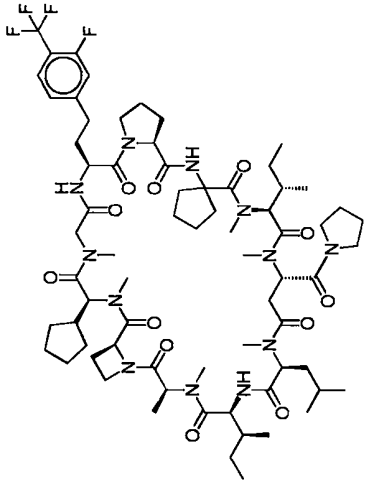
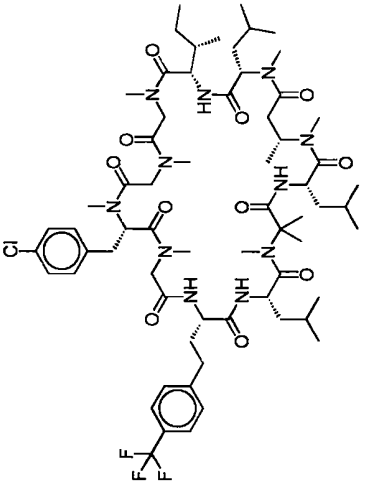
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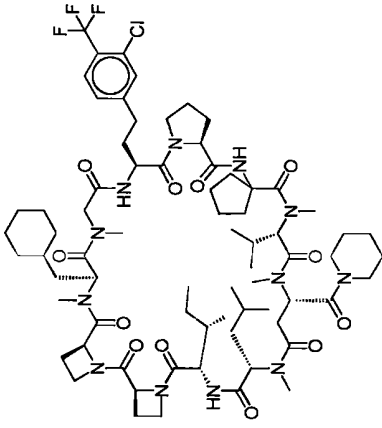
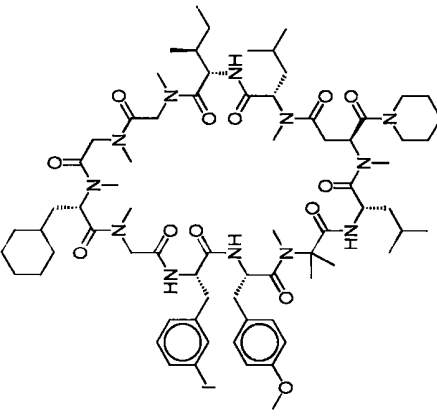
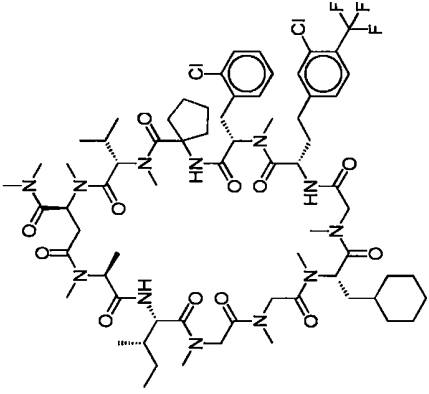
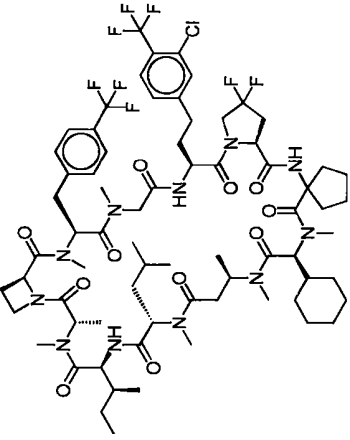
	
306	308
	
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[5254]

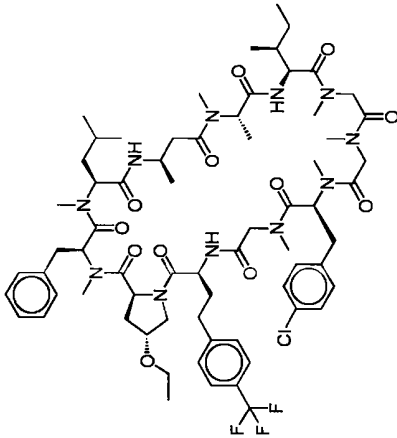
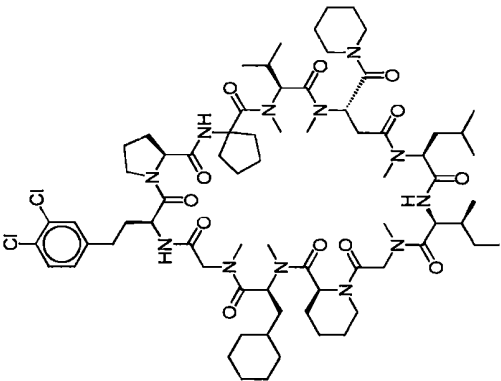
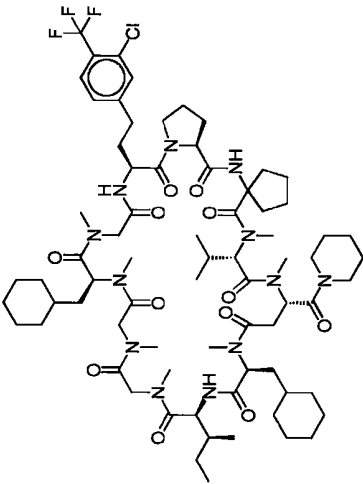
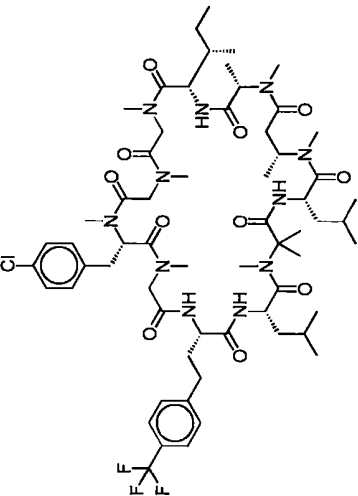
	
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[5255]

	
314	316
	
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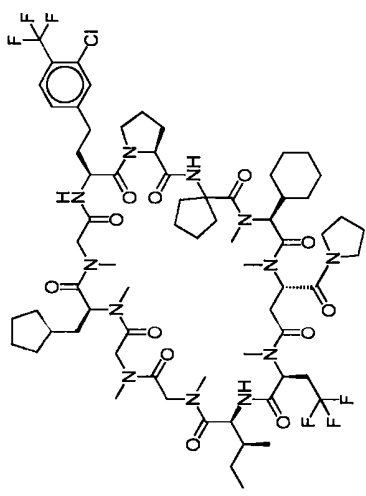
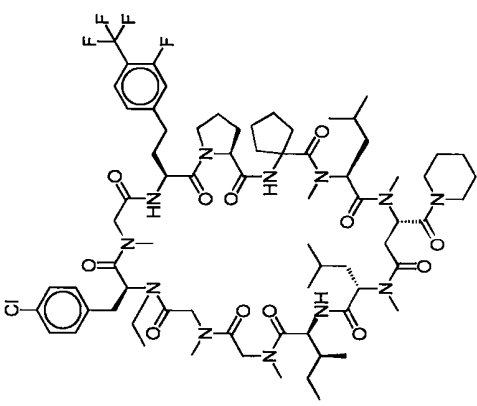
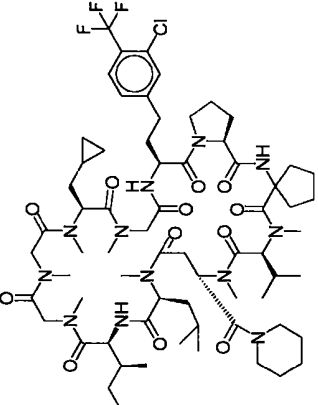
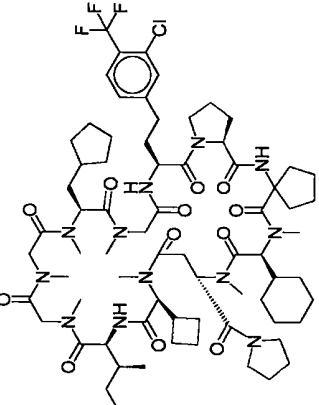
	
318	320
	
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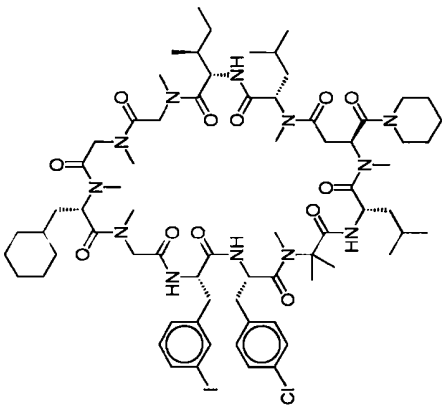
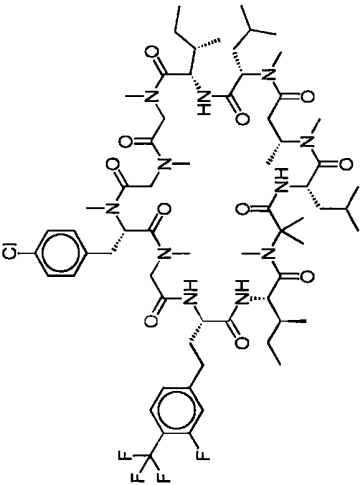
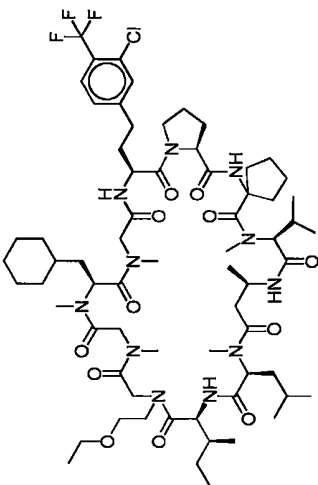
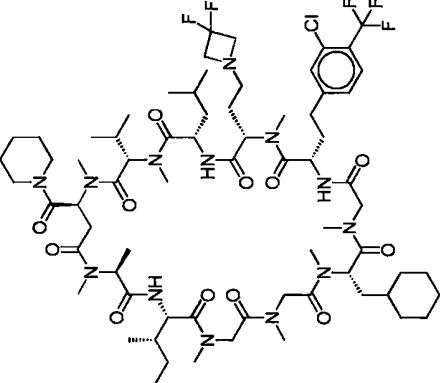
[5256]

	
322	324
	
321	323

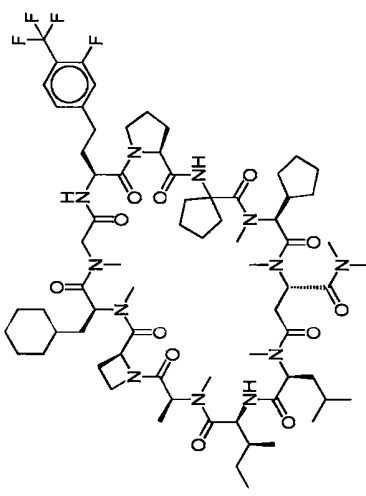
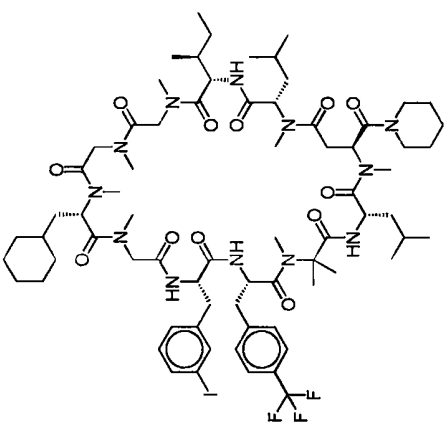
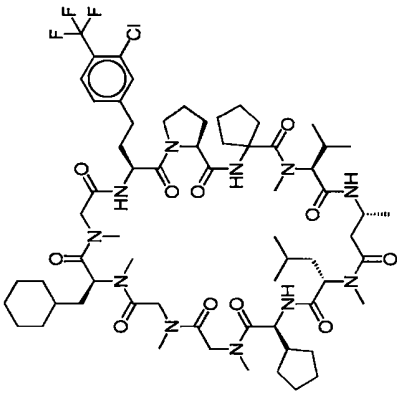
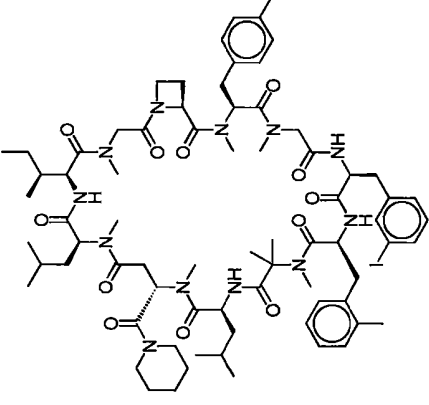
[5257]

[5258]

	
326	328
	
325	327

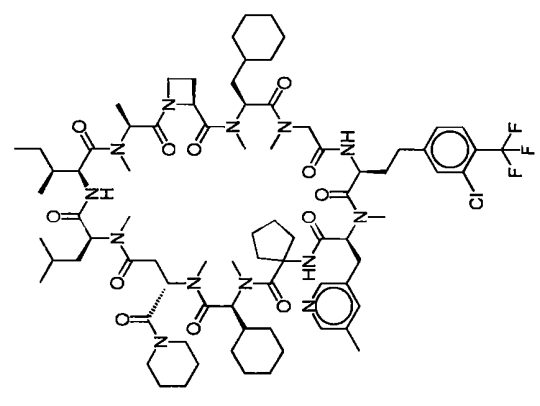
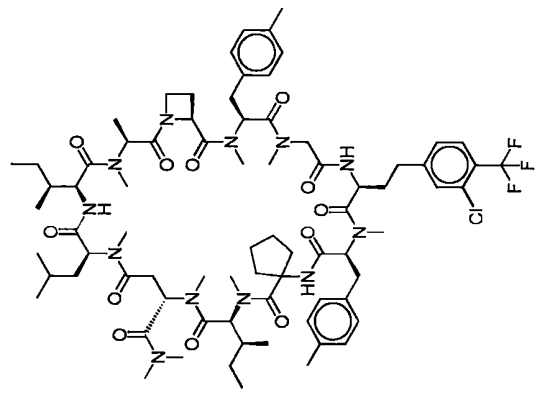
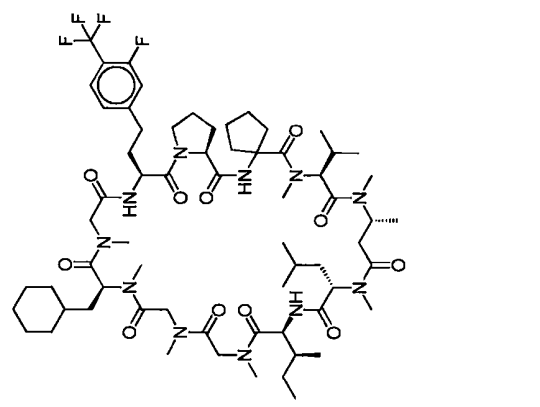
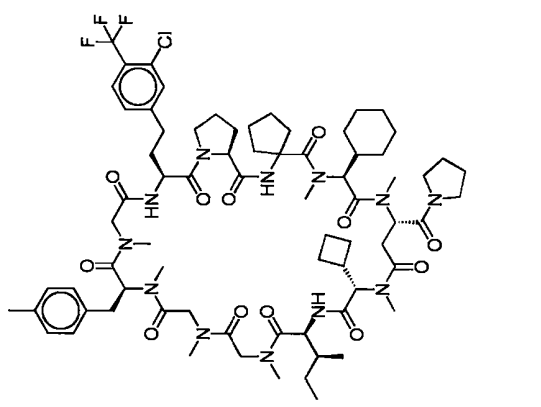
	
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[5259]

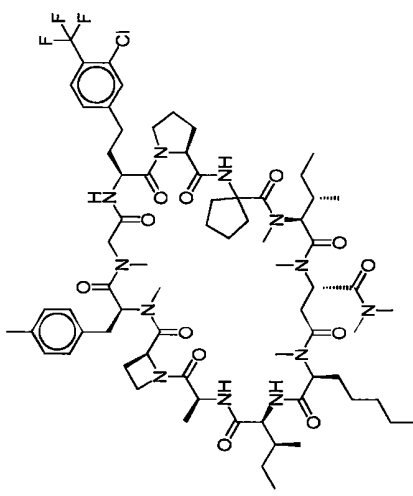
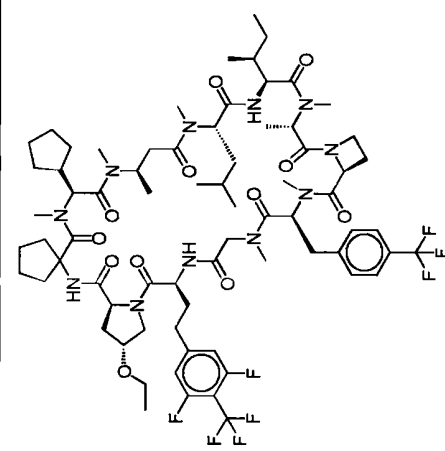
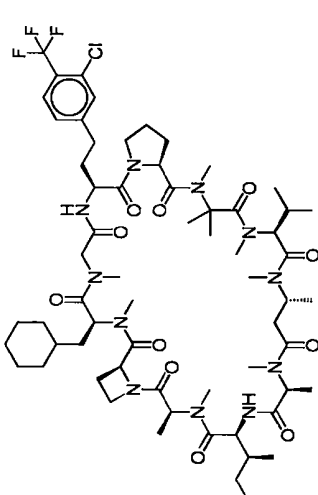
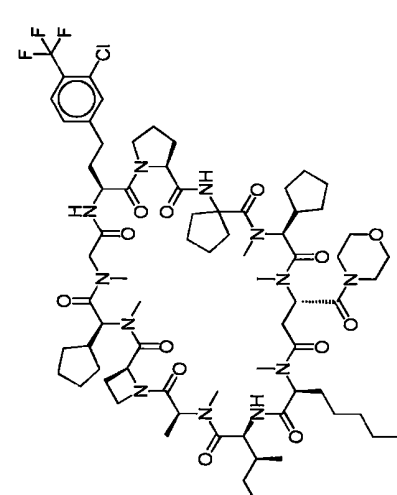
	
334	336
	
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[5260]

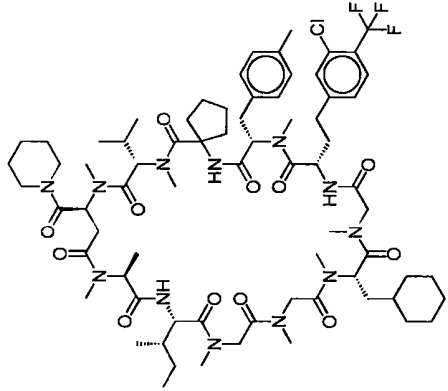
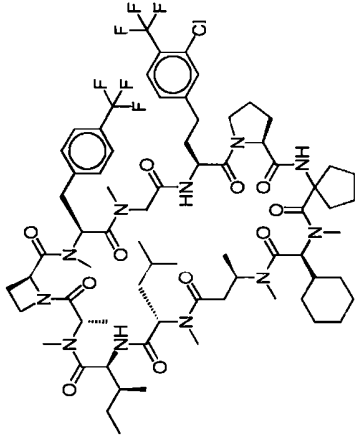
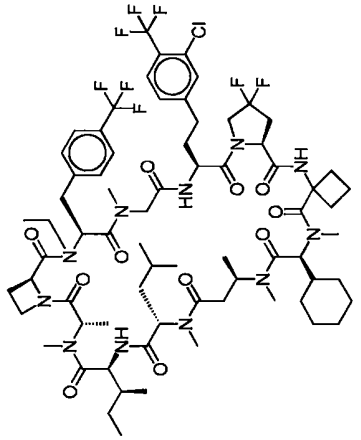
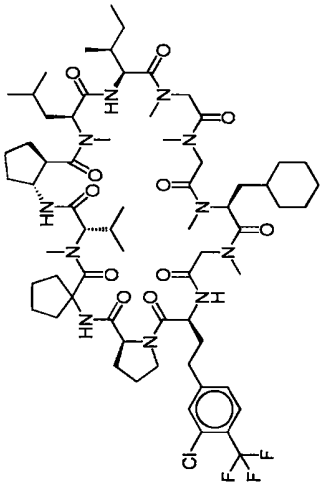
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338	340
	
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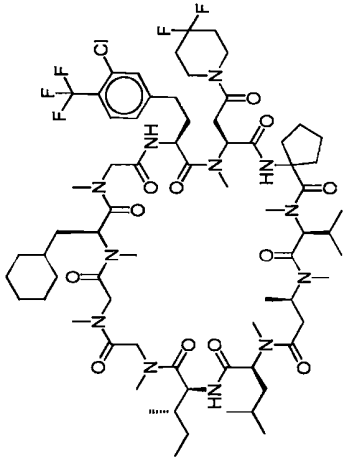
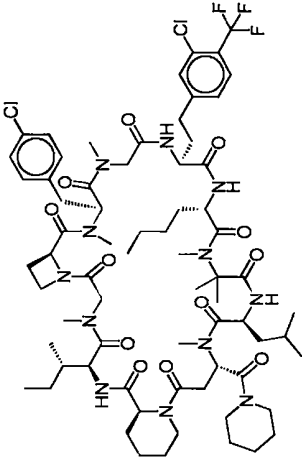
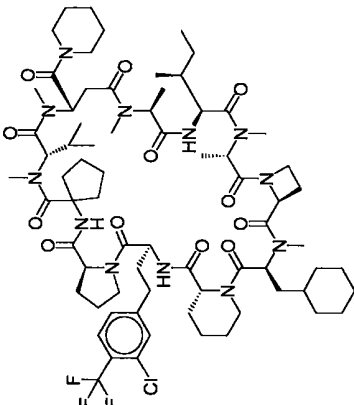
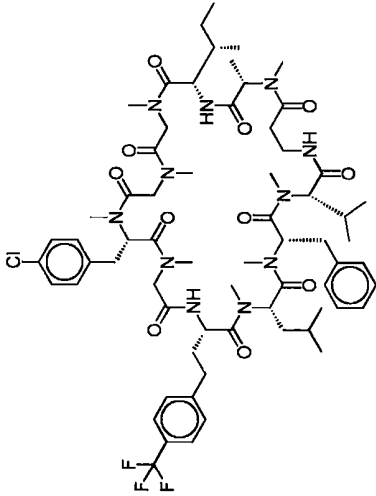
[5262]

	
342	344
	
341	343

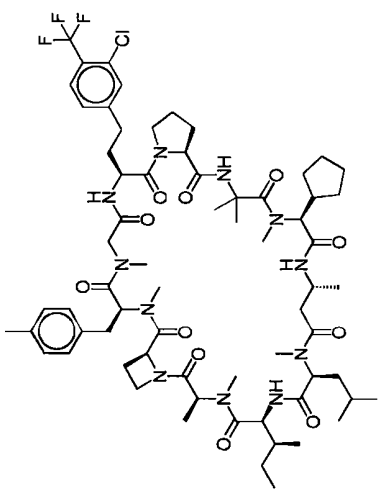
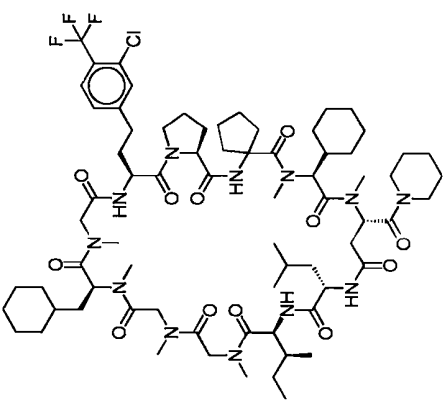
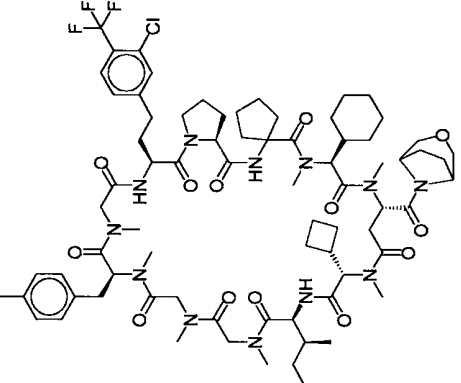
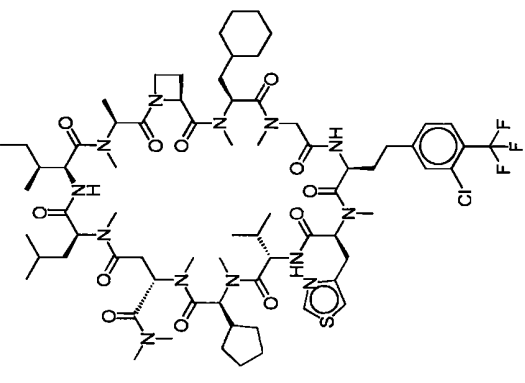
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346	348
	
345	347

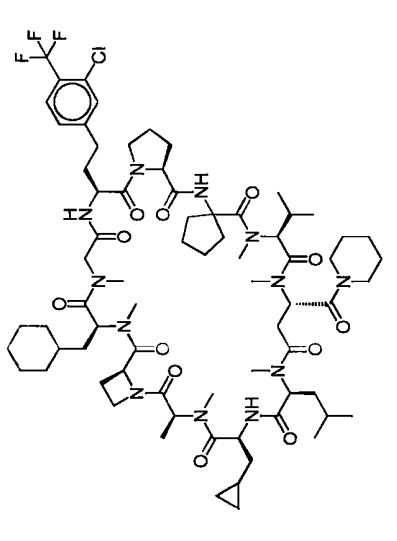
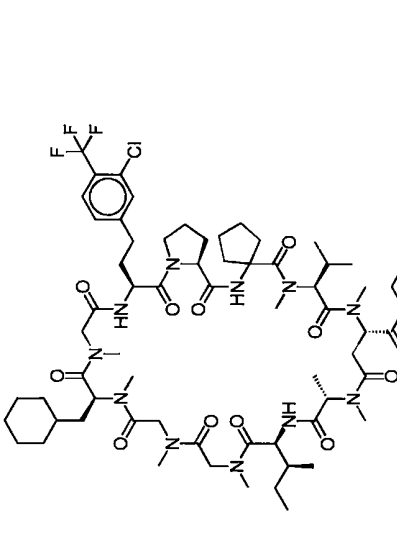
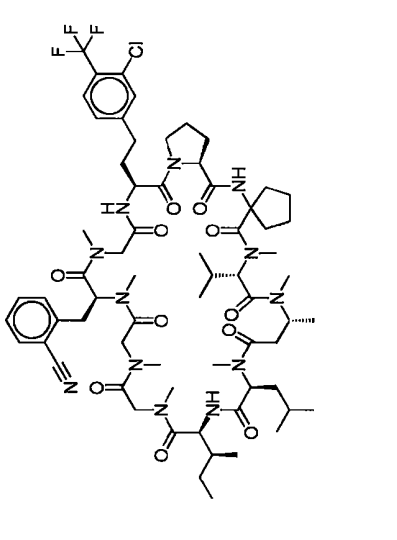
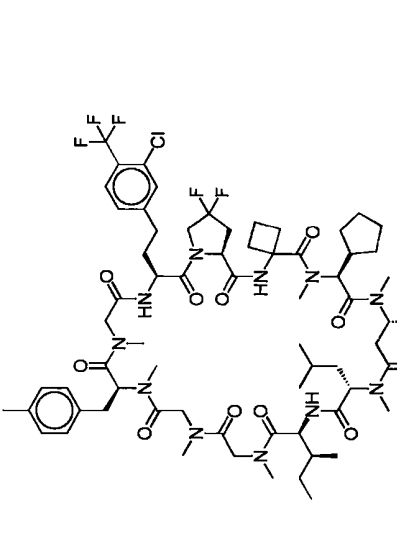
[5264]

	
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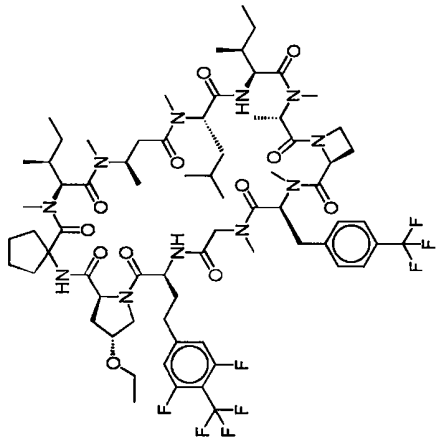
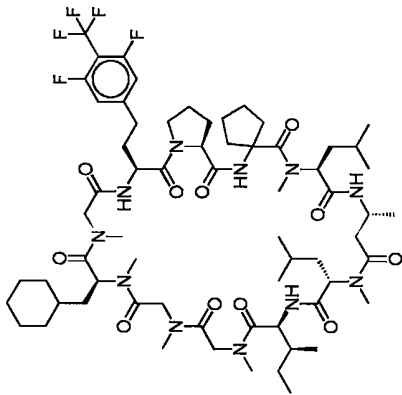
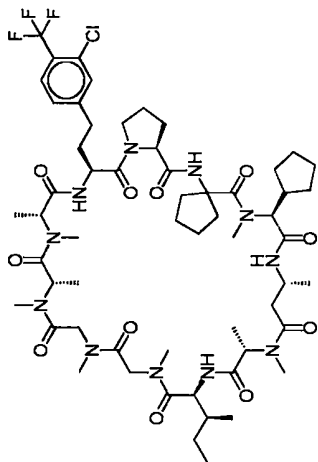
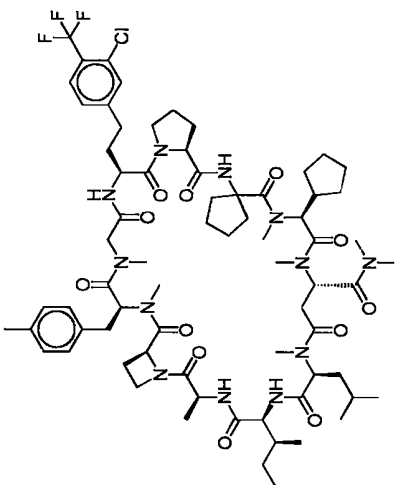
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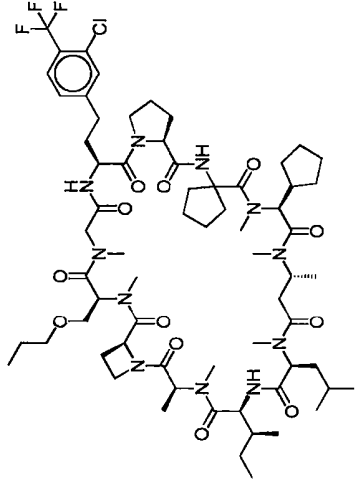
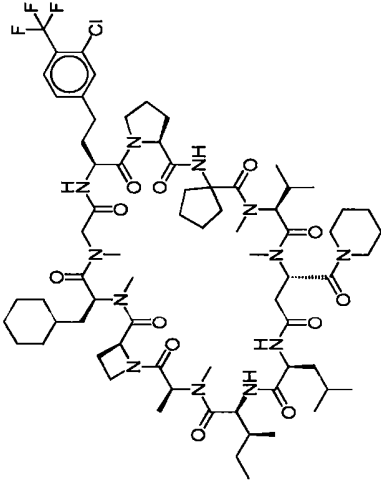
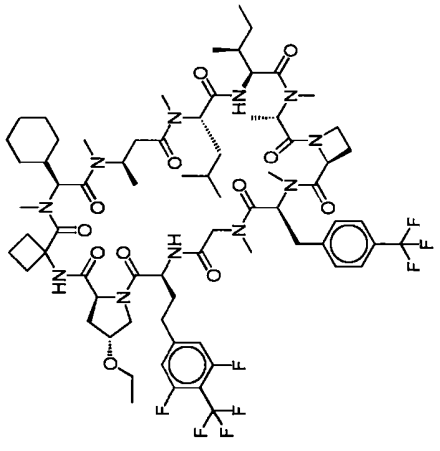
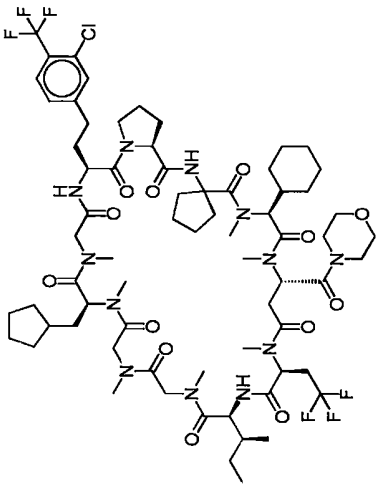
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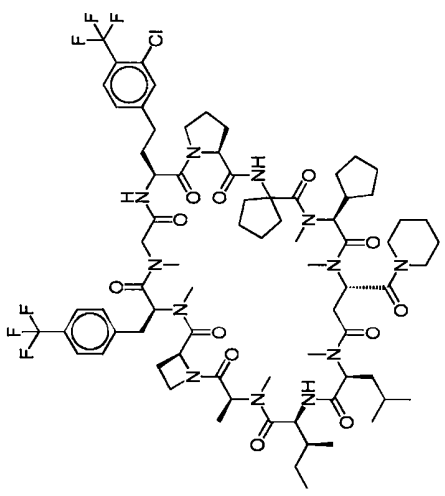
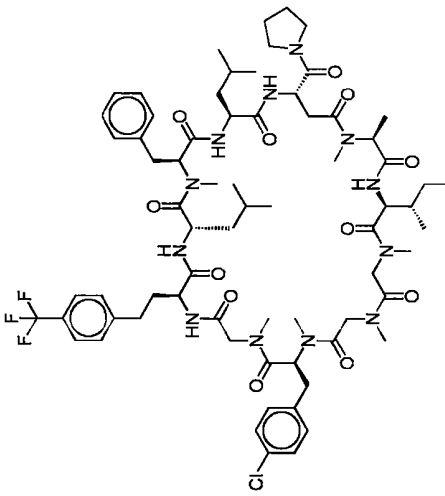
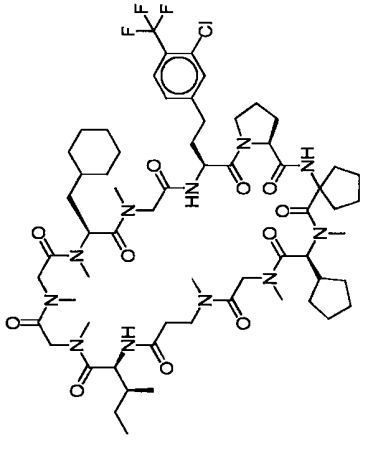
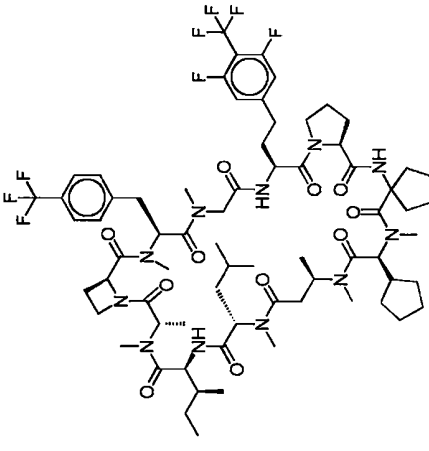
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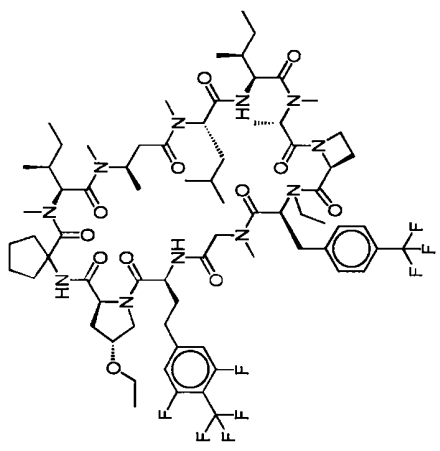
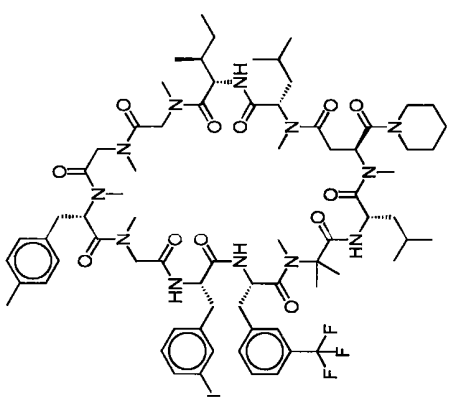
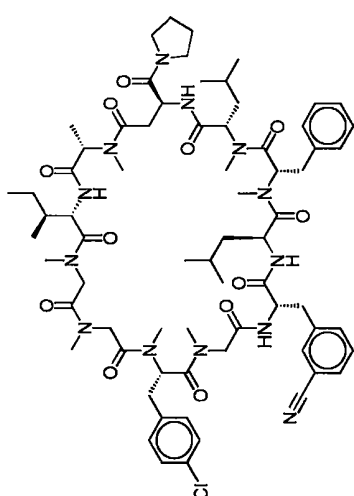
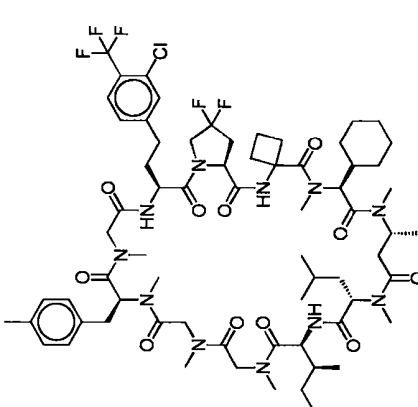
	
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[5268]

	
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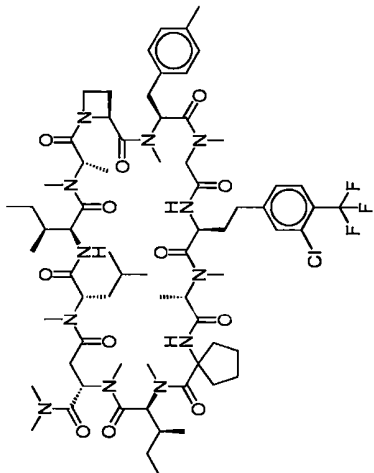
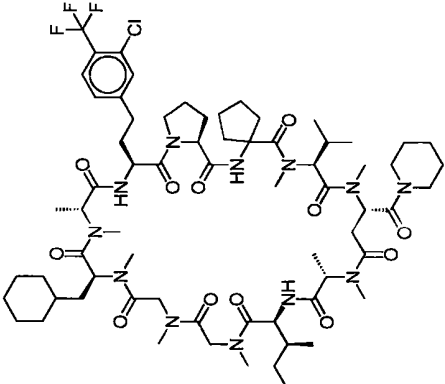
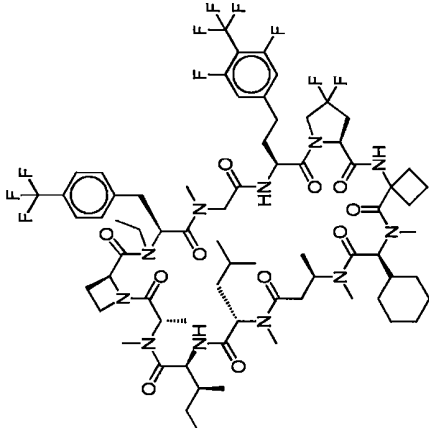
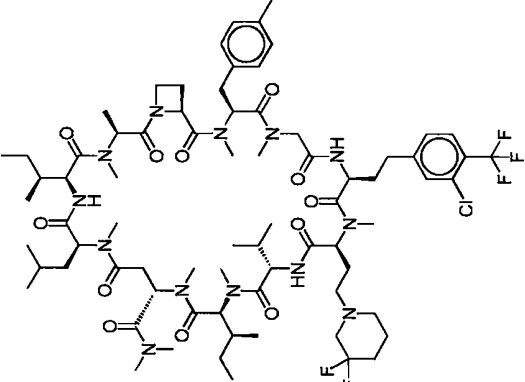
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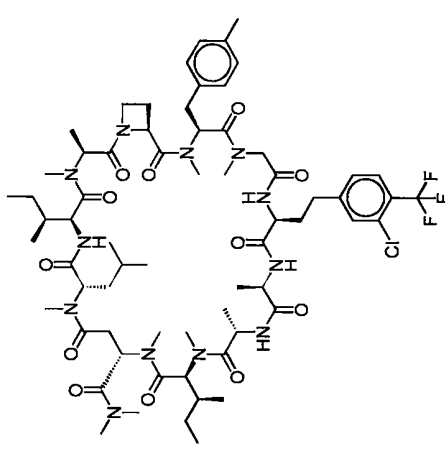
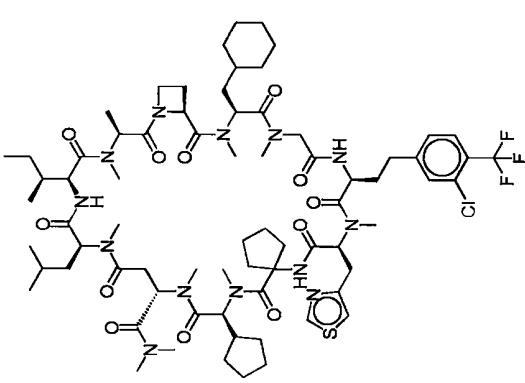
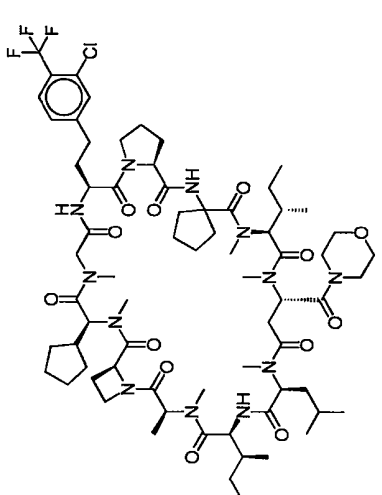
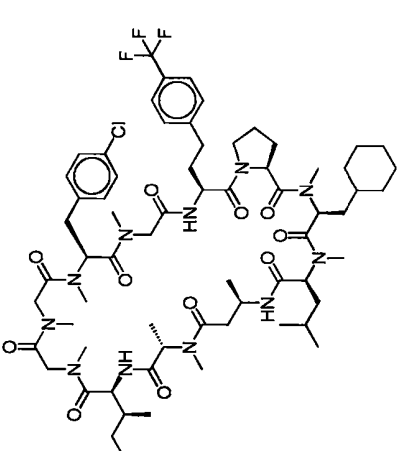
	
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[5270]

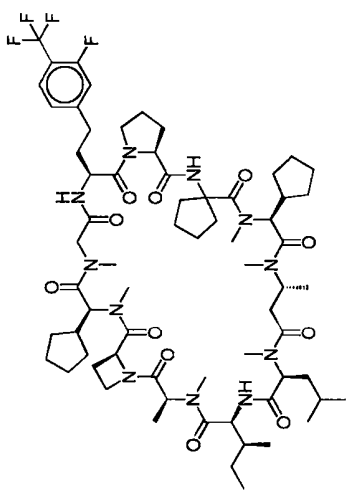
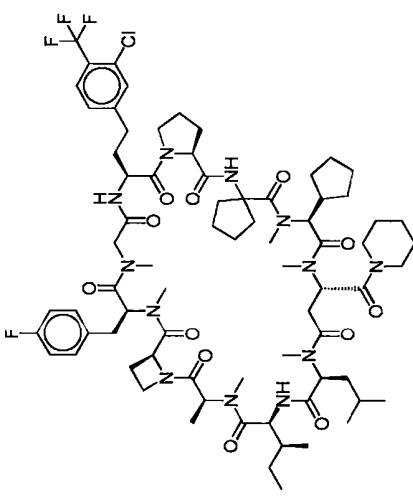
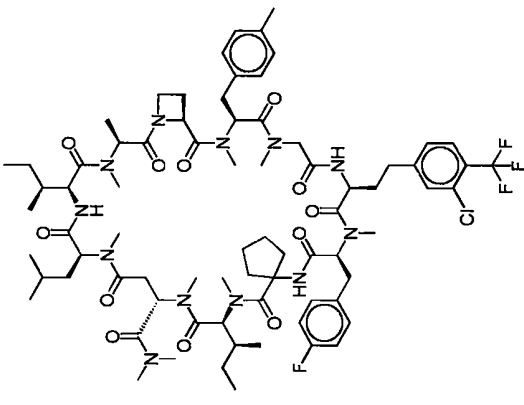
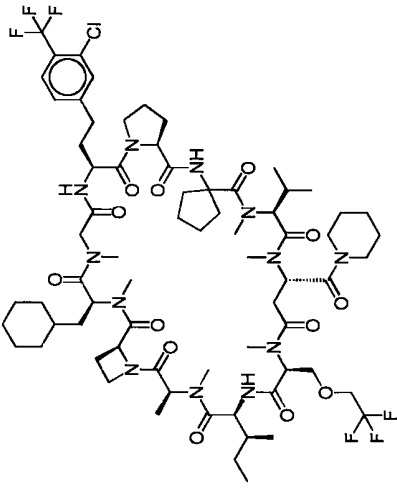
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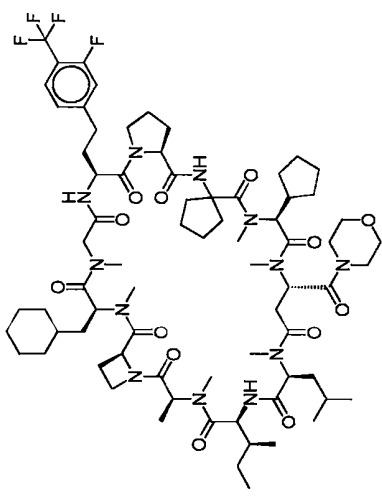
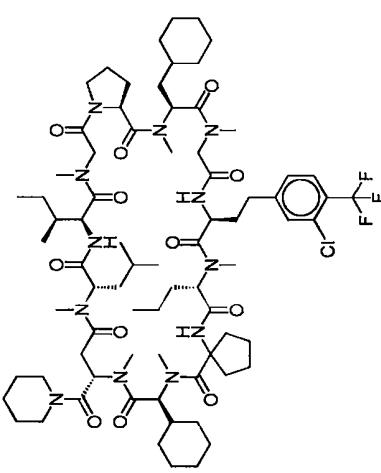
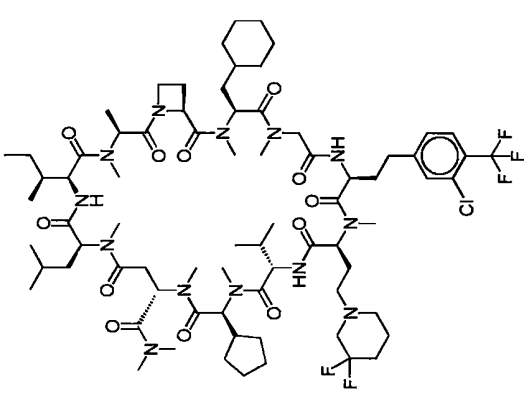
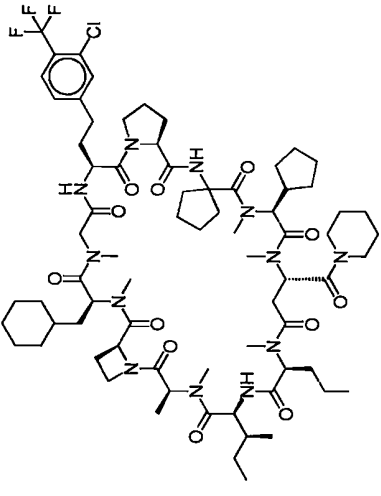
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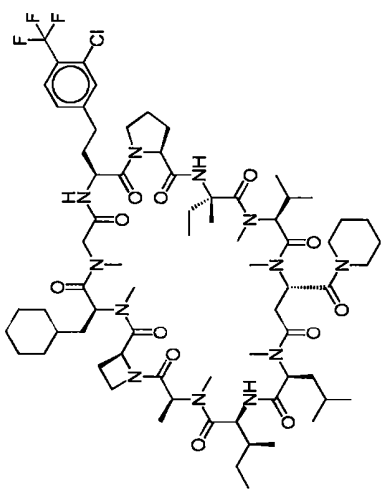
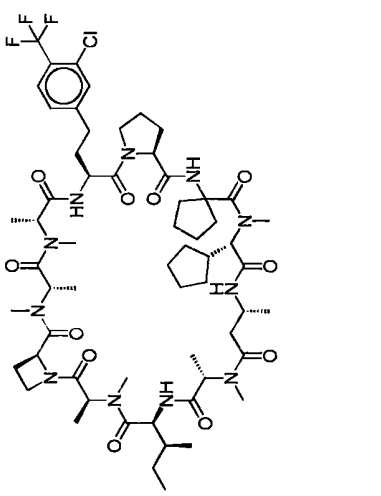
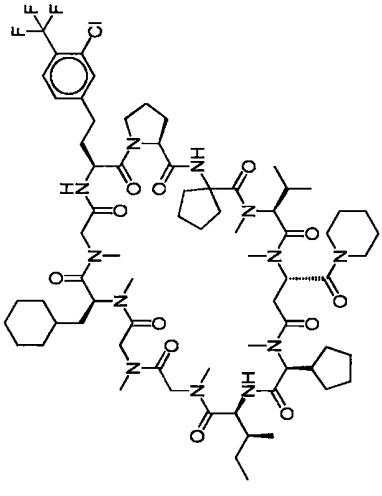
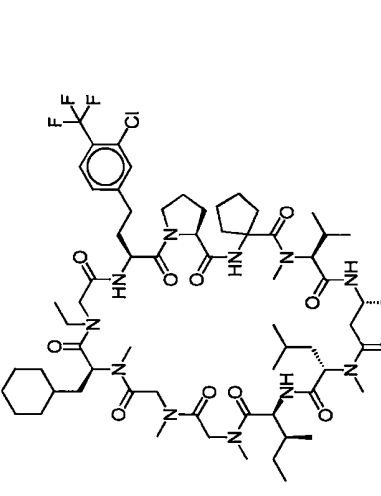
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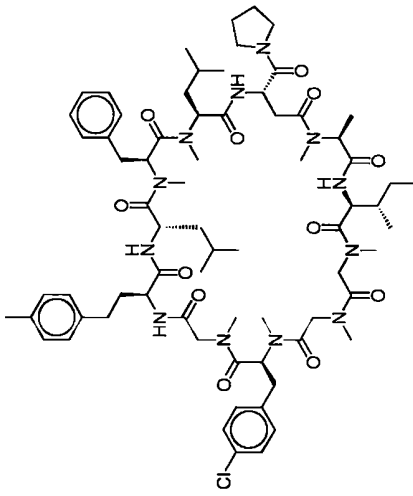
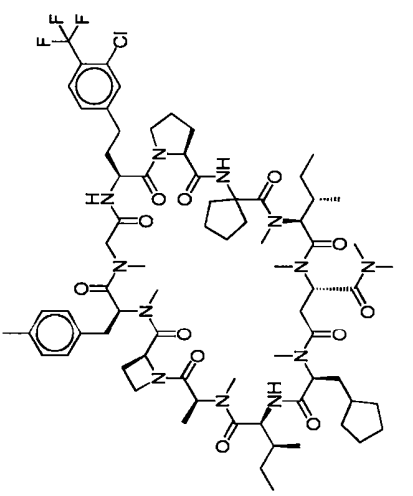
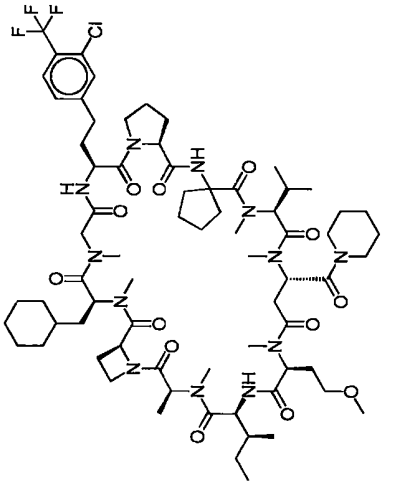
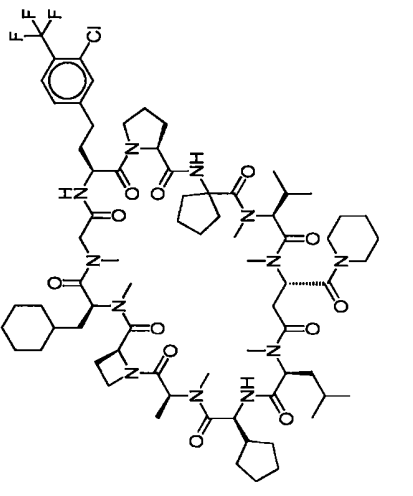
	
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[5274]

	
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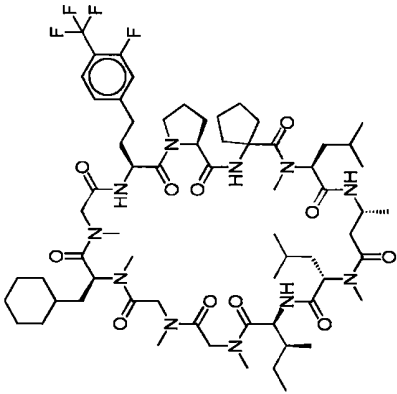
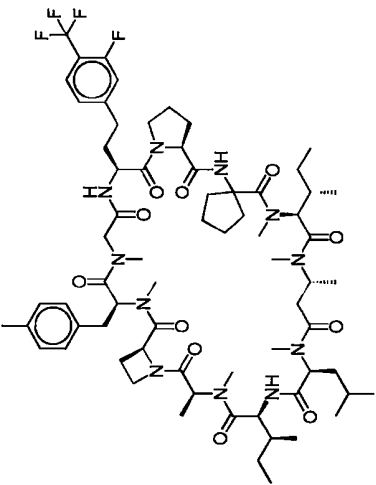
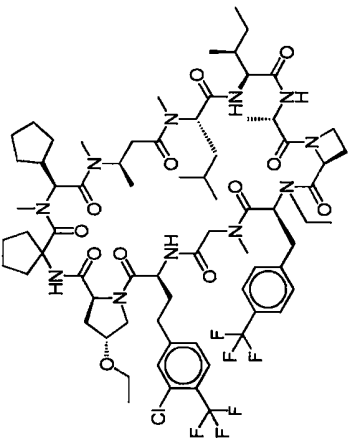
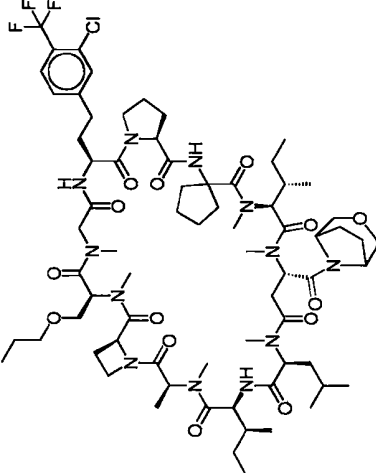
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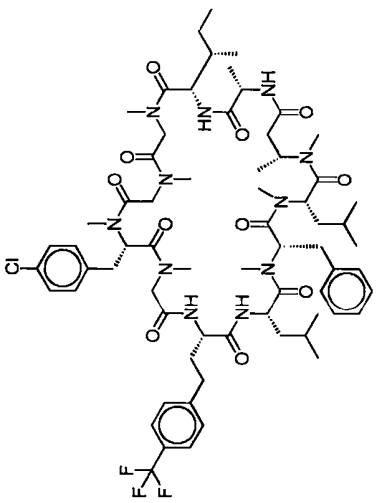
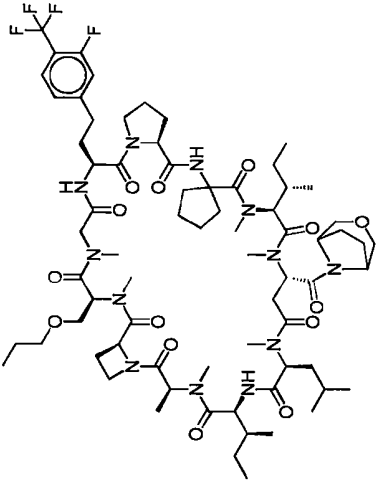
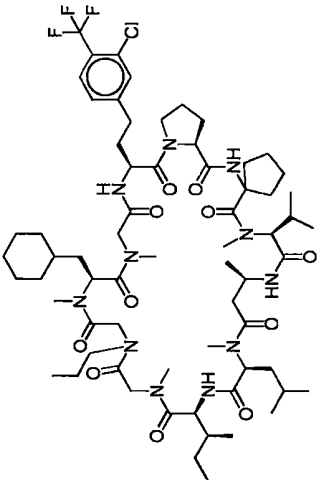
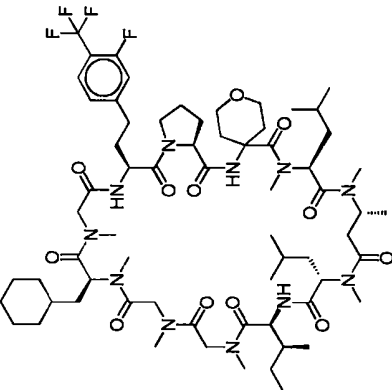
	
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[5276]

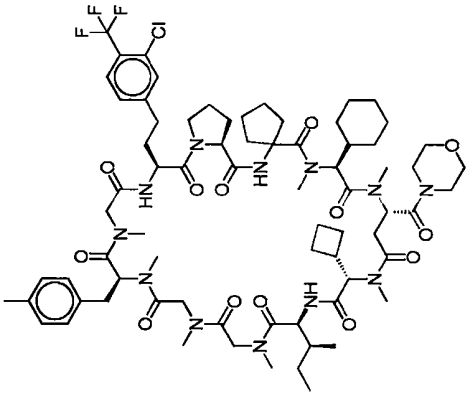
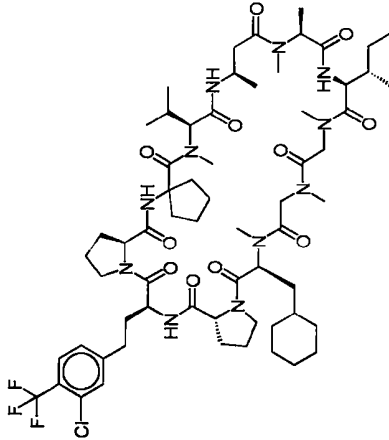
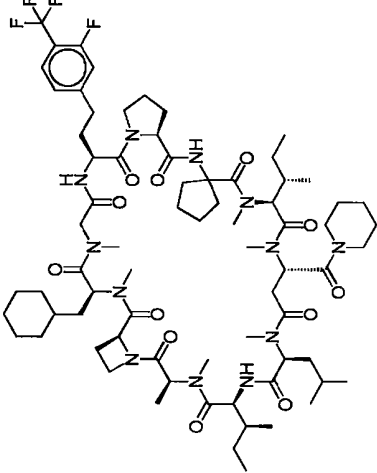
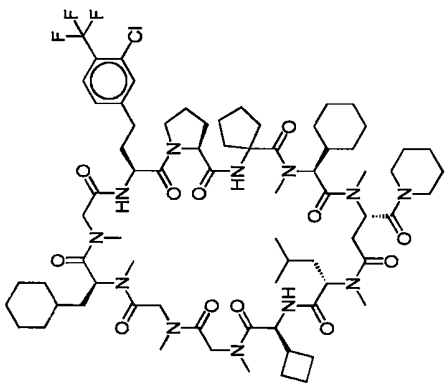
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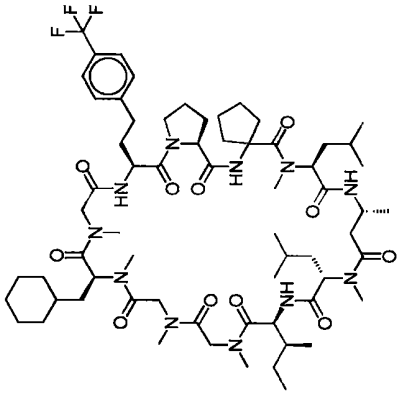
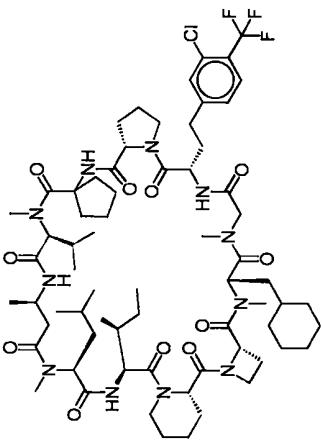
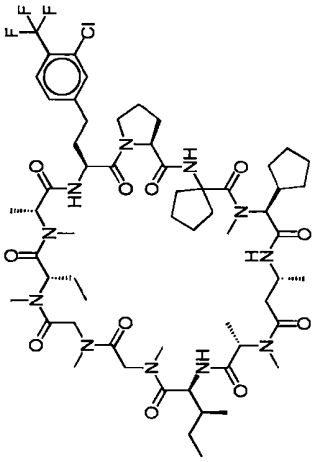
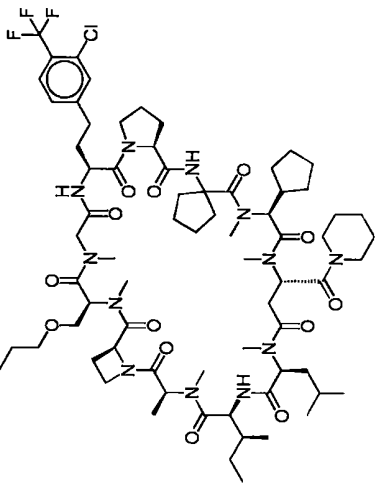
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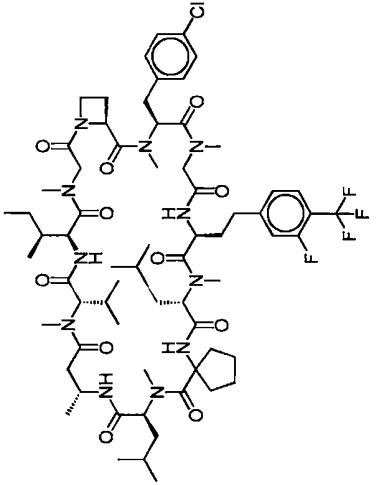
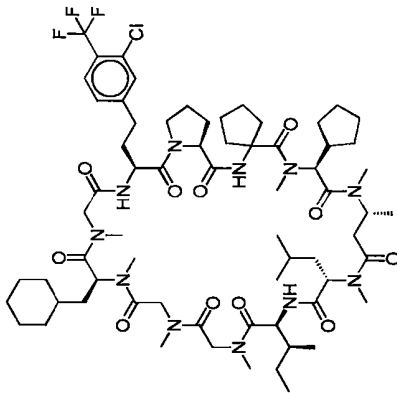
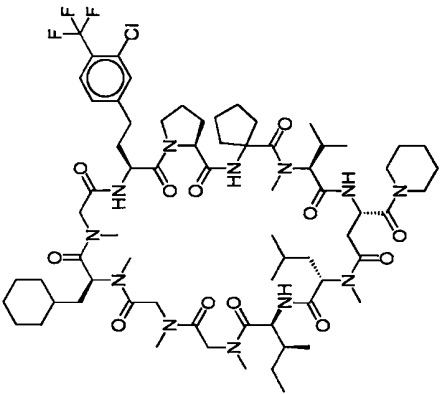
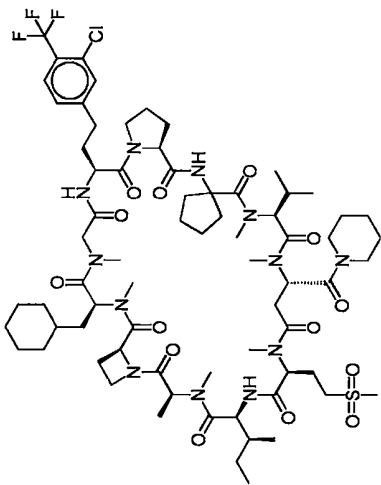
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410	412
	
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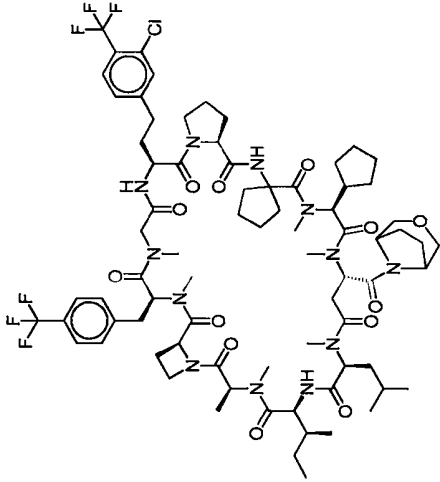
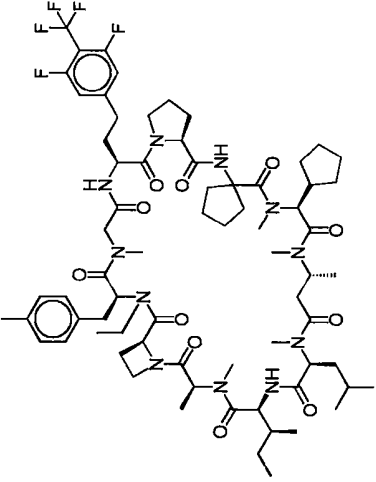
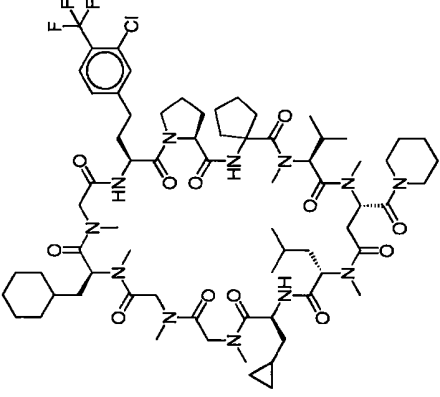
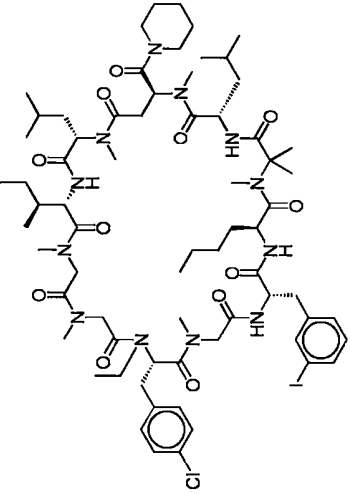
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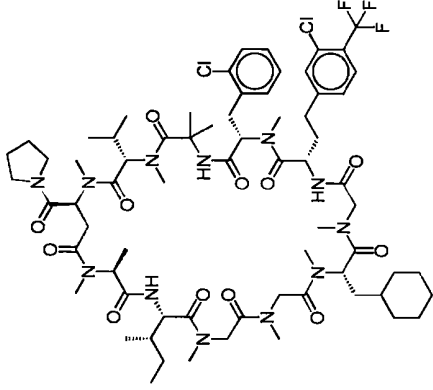
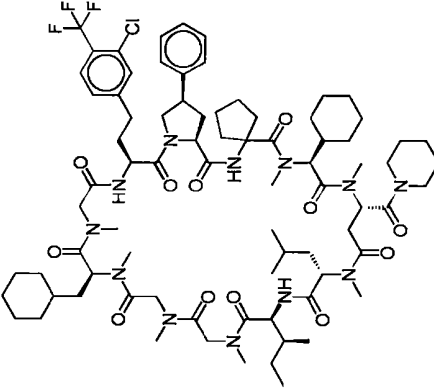
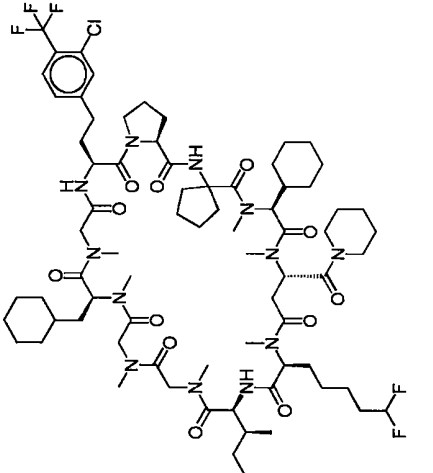
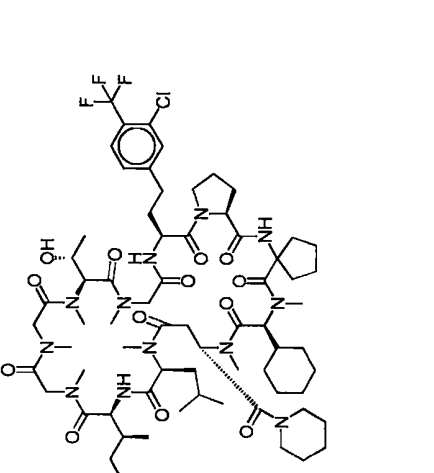
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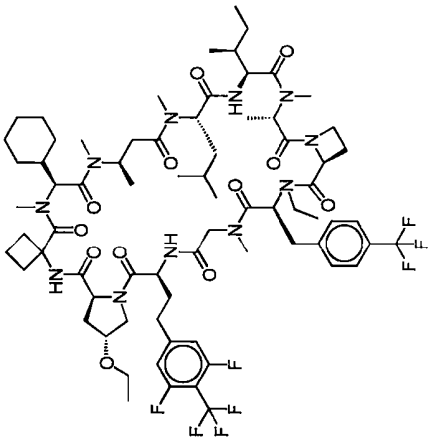
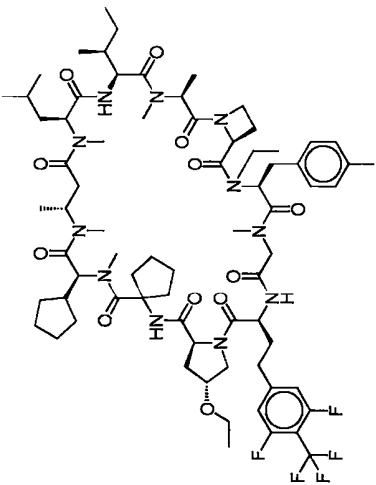
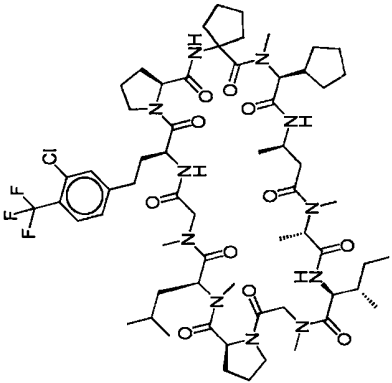
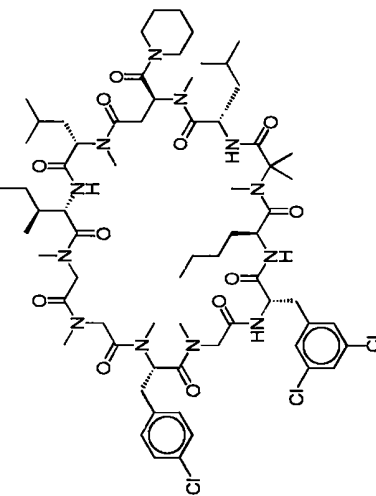
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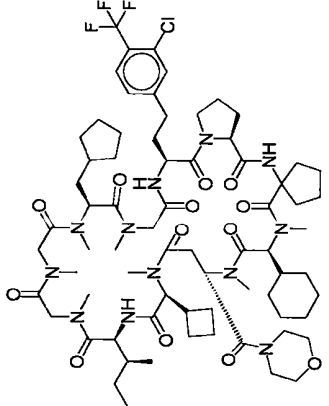
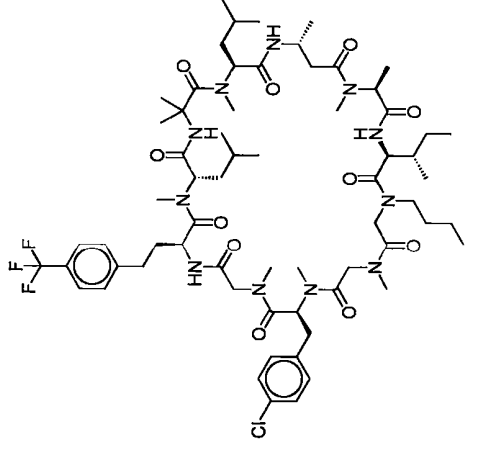
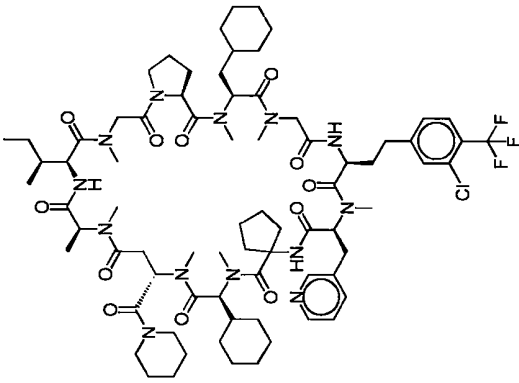
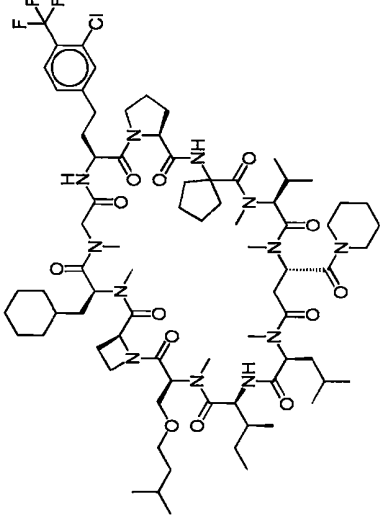
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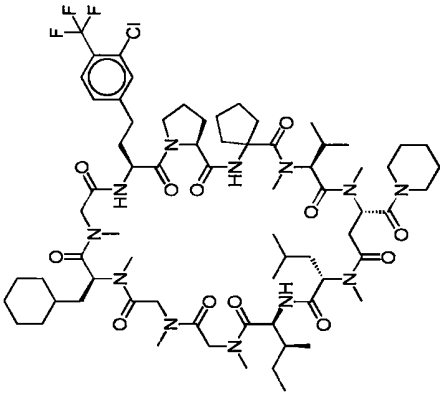
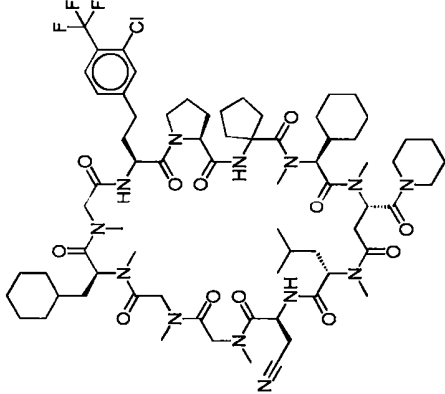
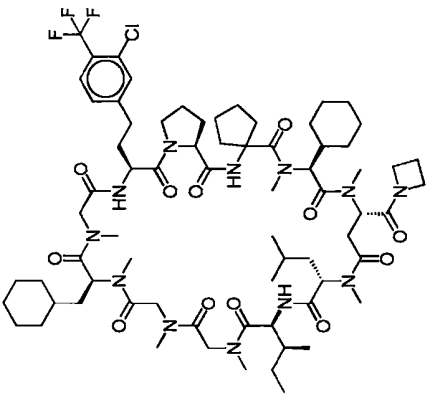
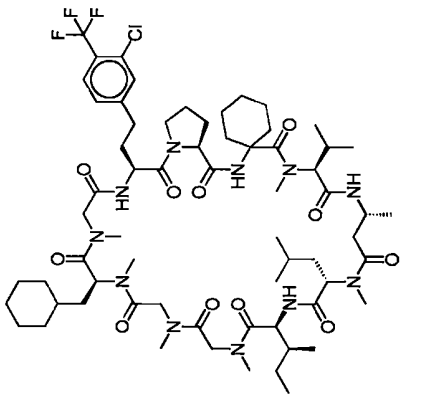
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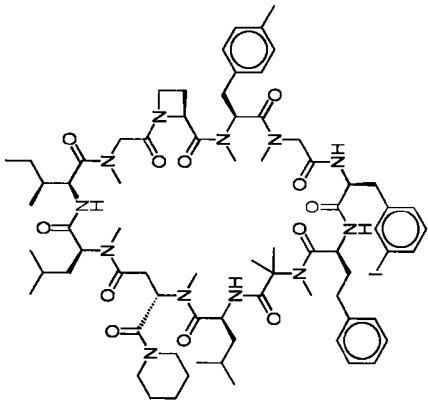
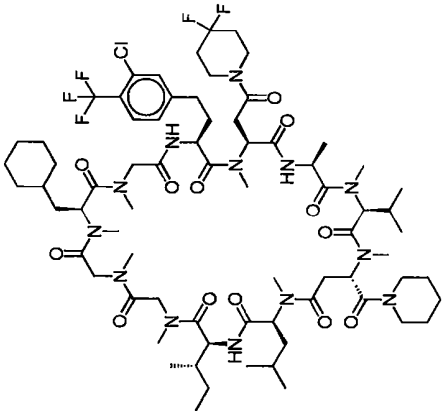
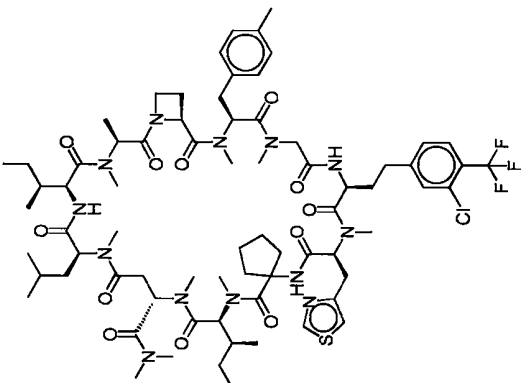
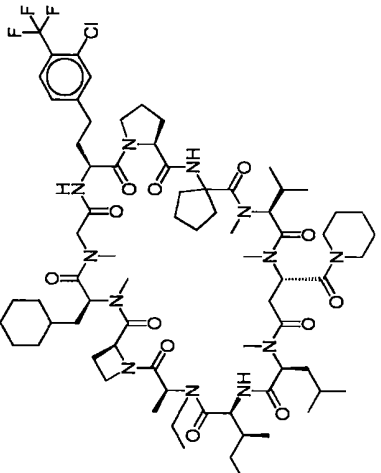
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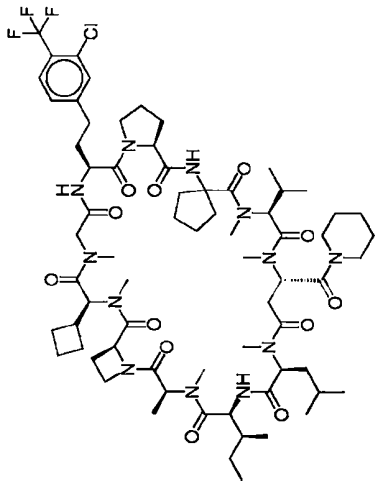
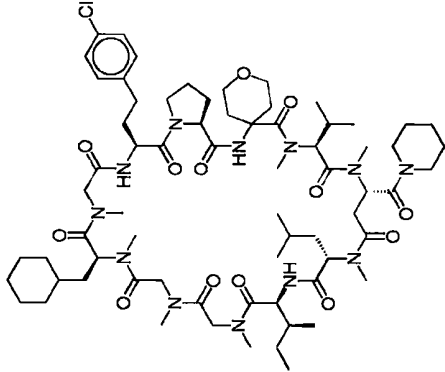
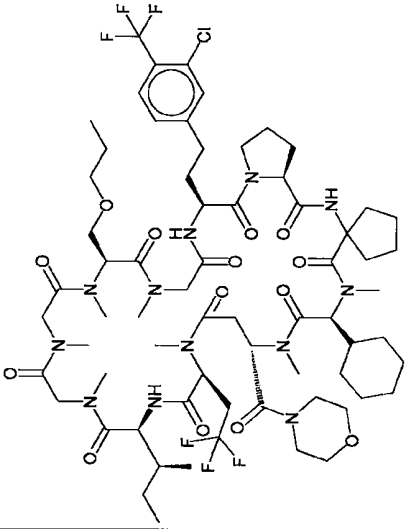
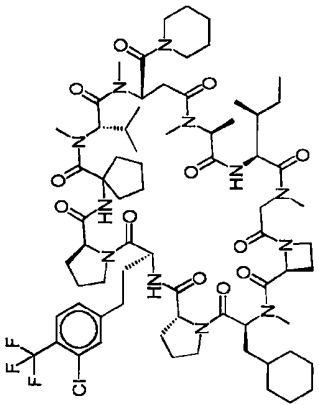
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438	440
	
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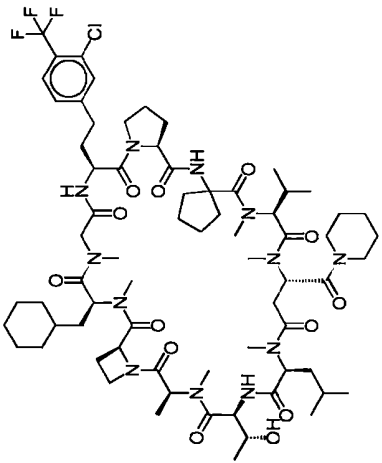
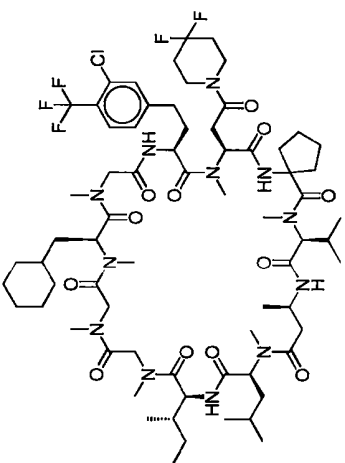
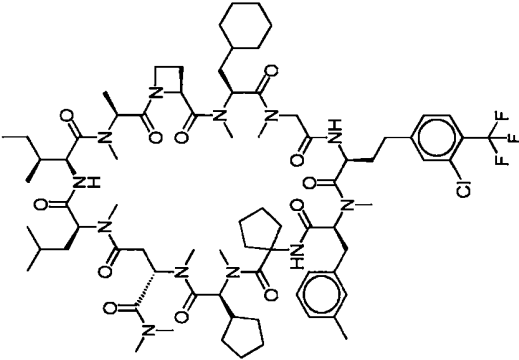
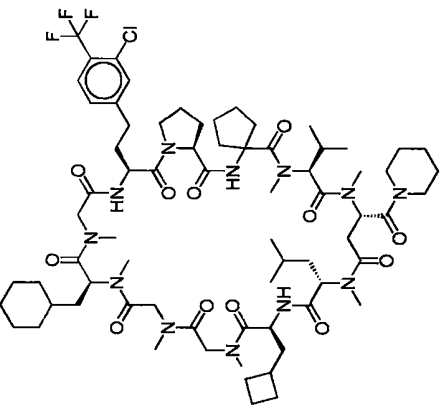
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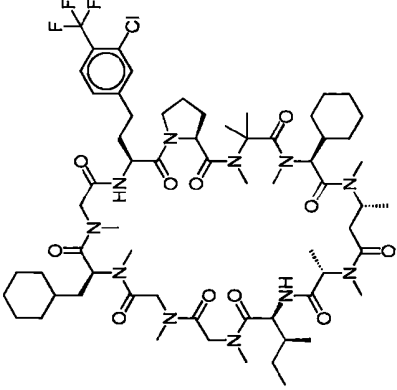
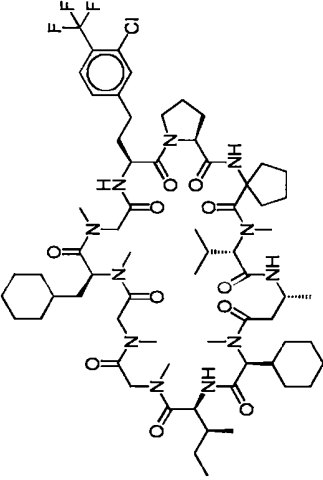
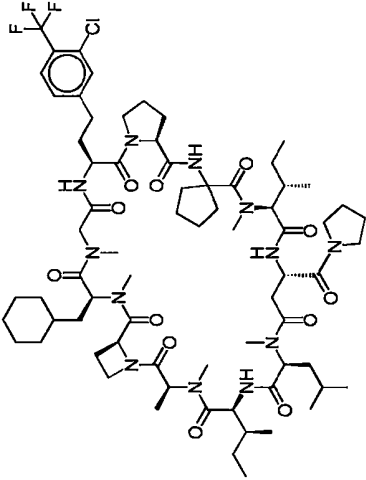
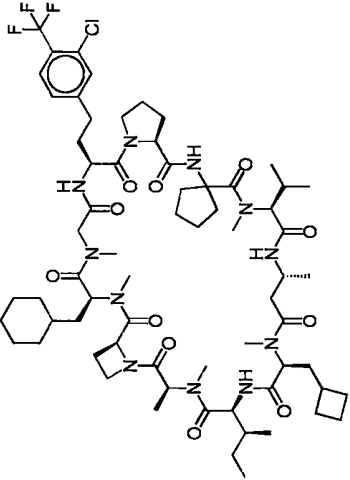
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446	448
	
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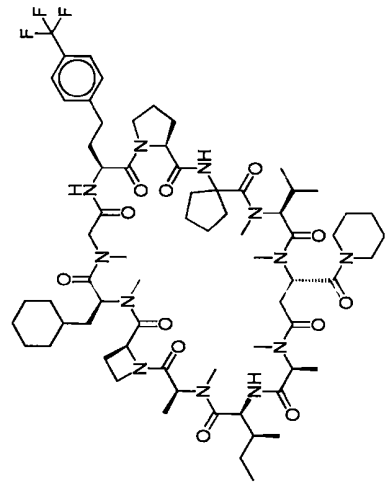
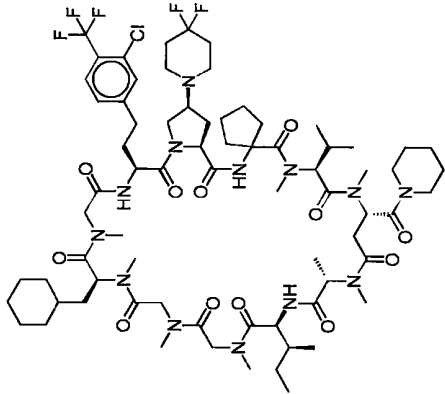
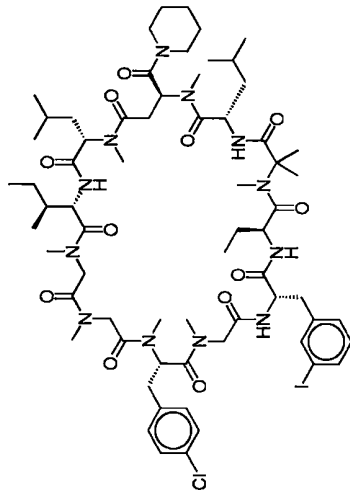
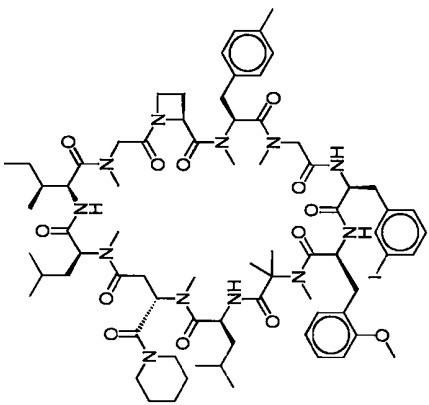
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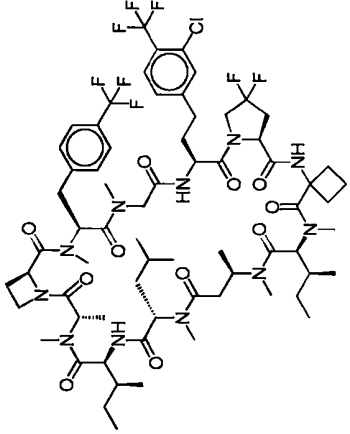
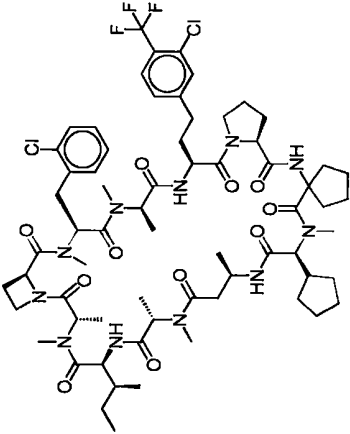
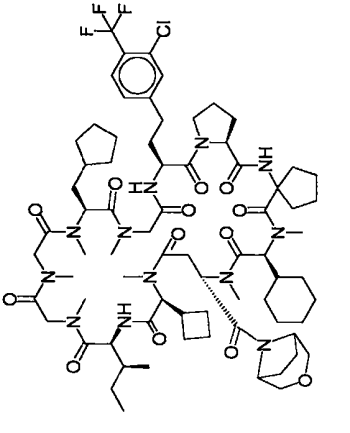
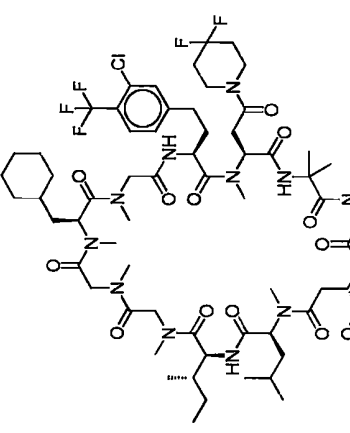
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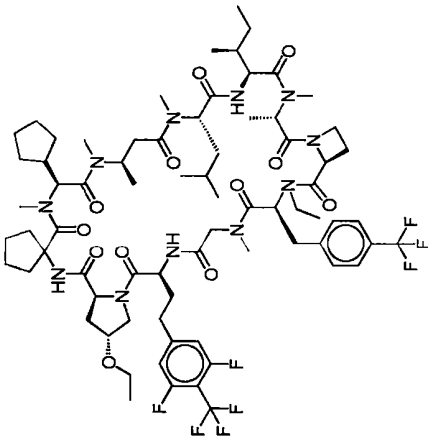
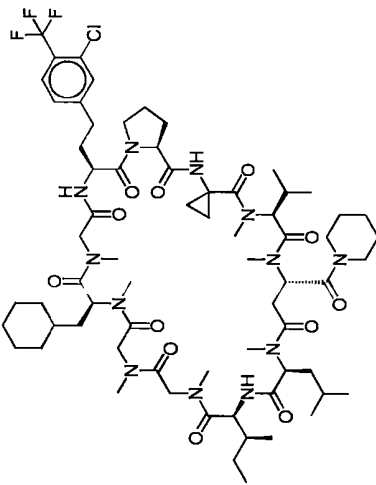
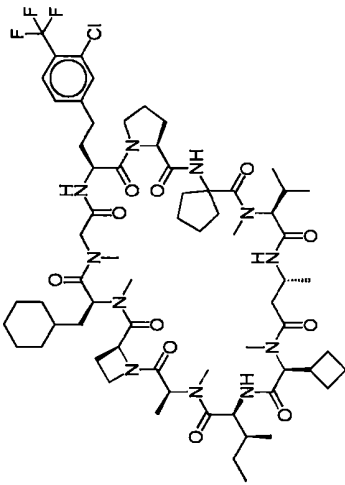
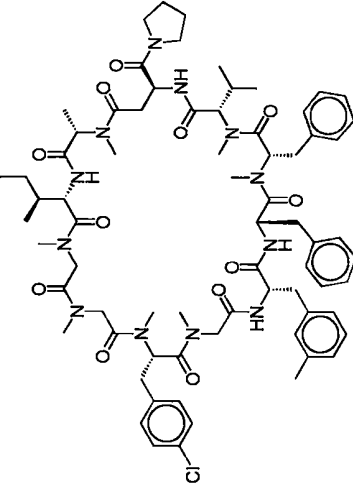
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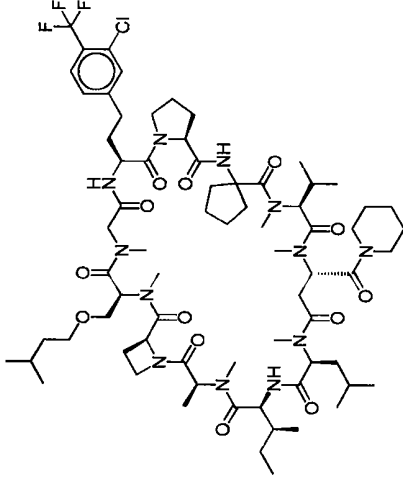
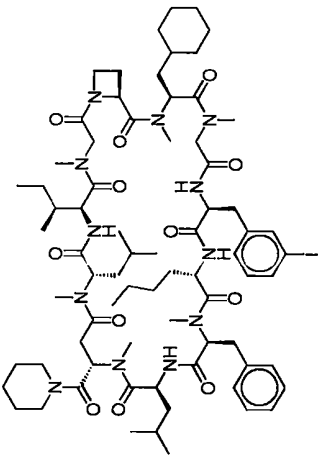
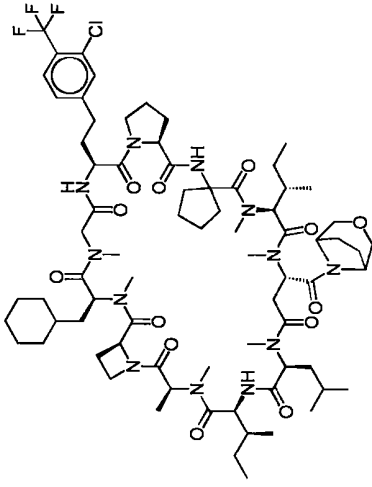
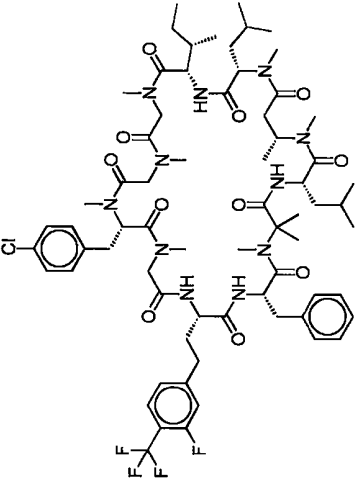
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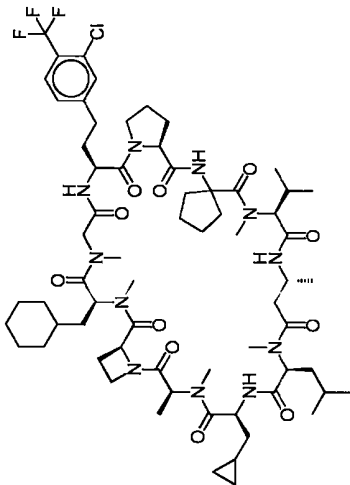
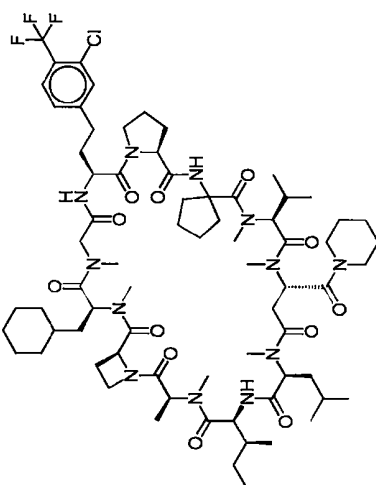
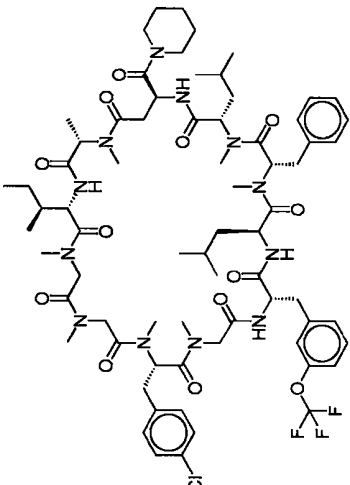
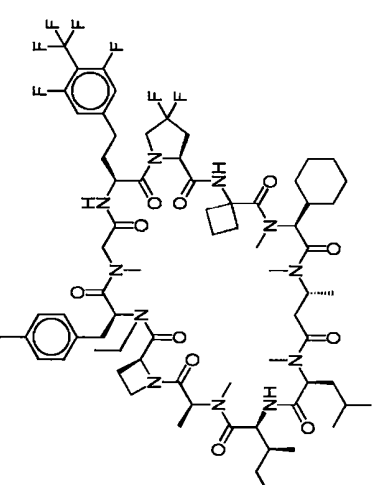
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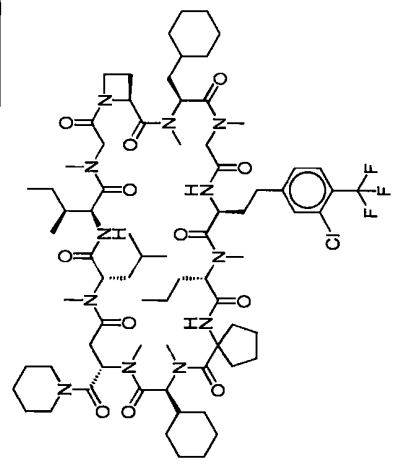
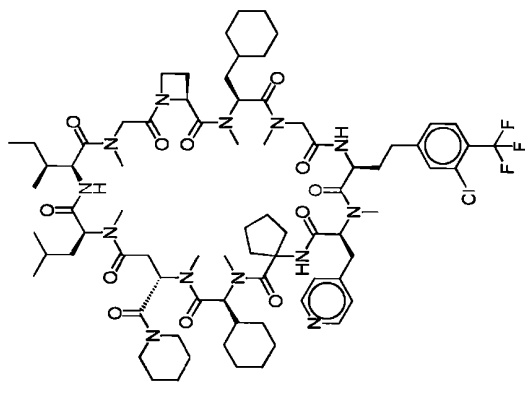
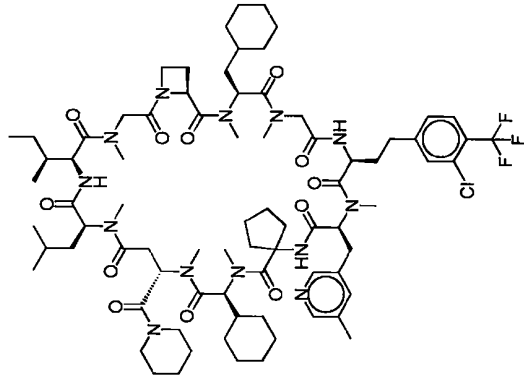
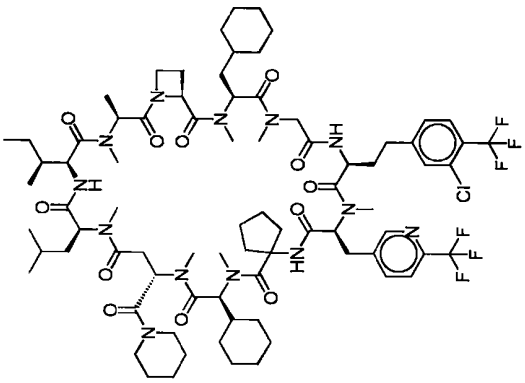
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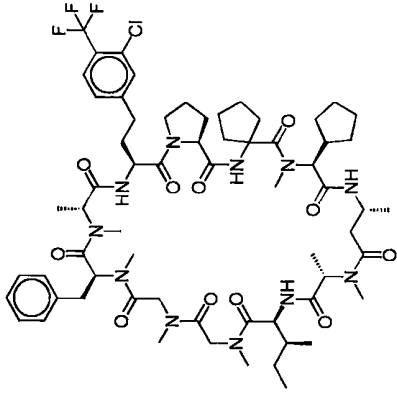
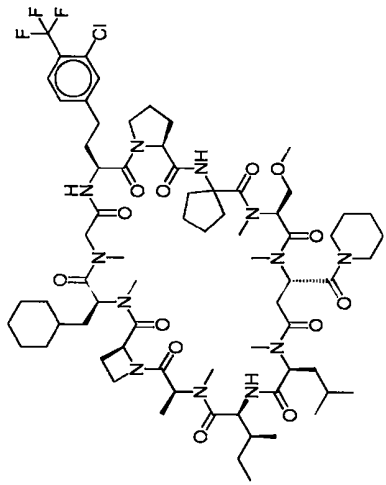
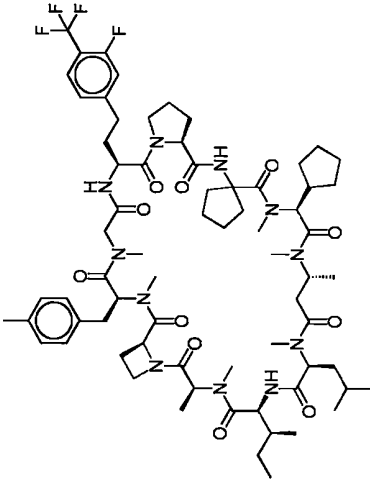
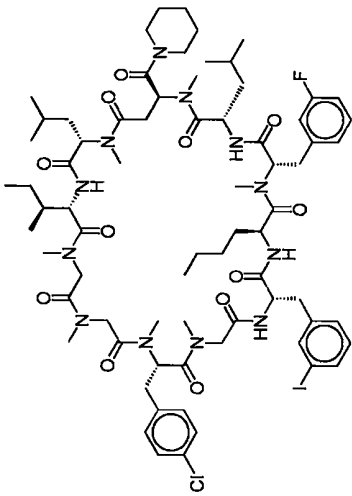
	
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[5295]

	
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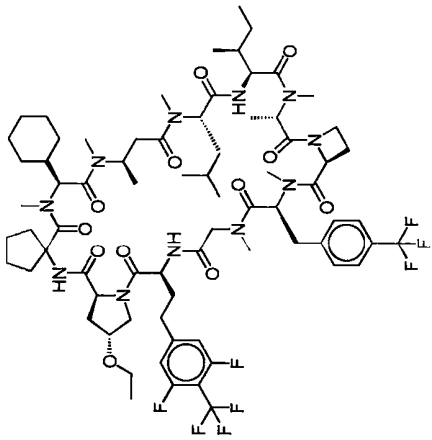
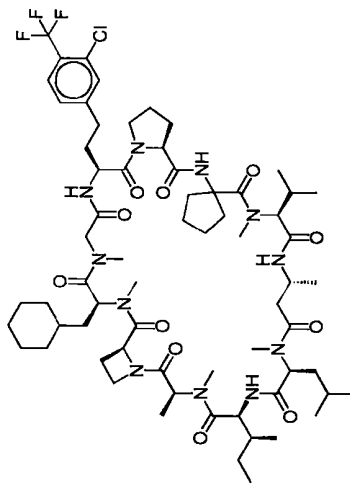
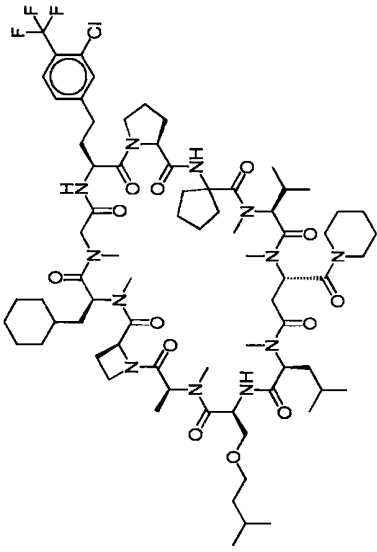
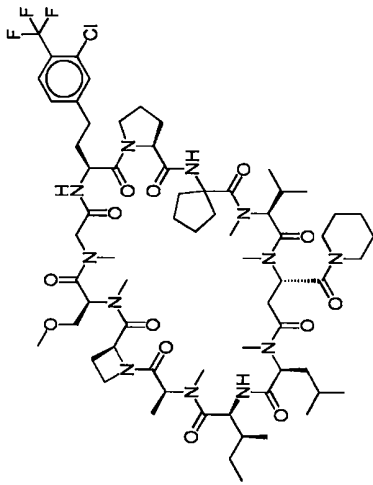
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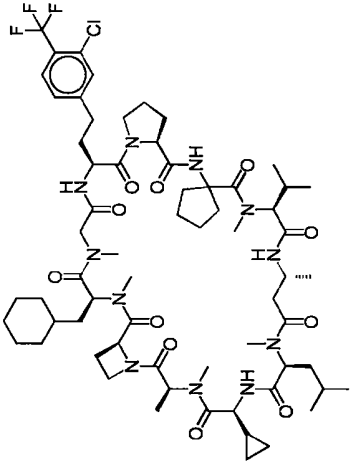
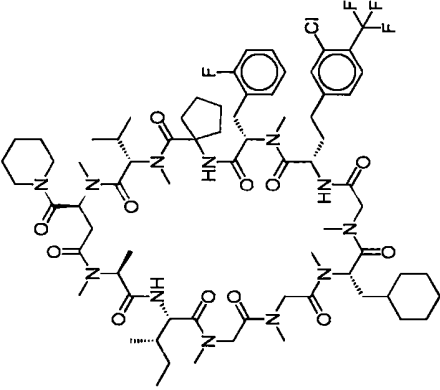
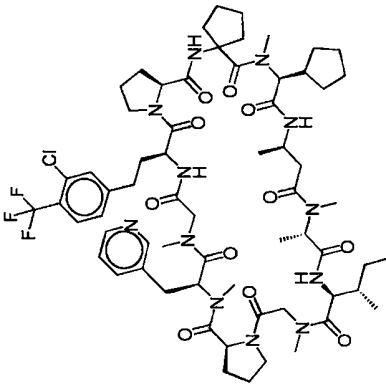
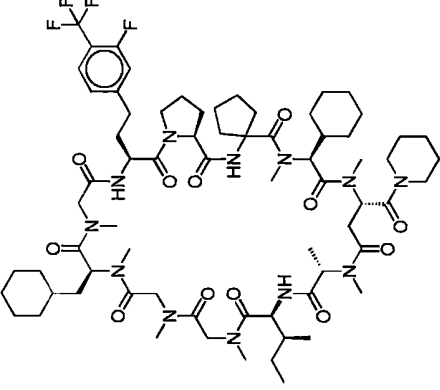
	
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[5297]

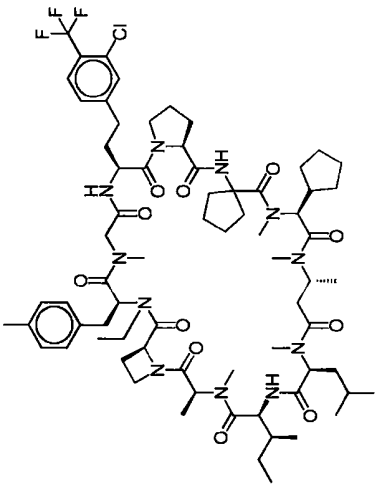
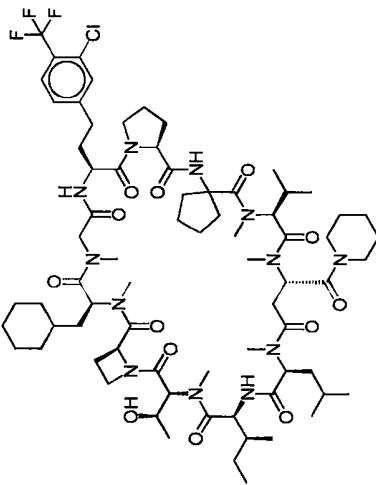
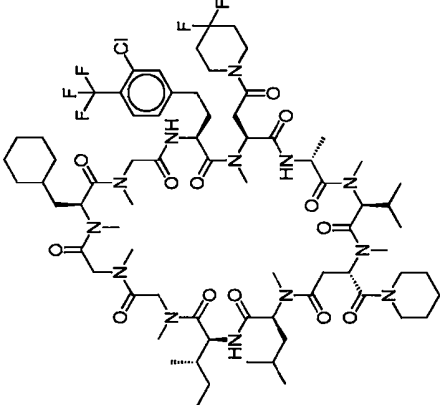
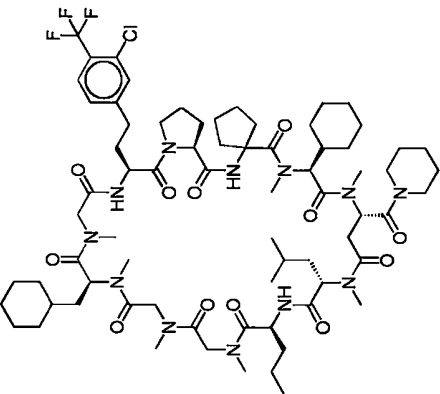
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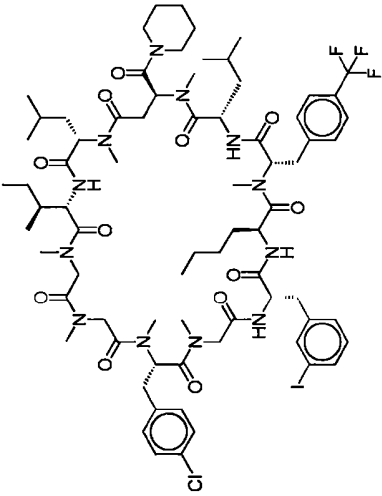
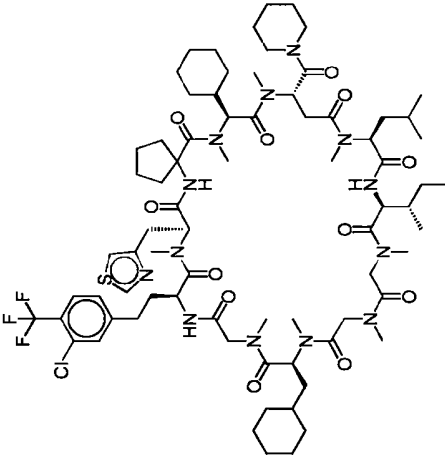
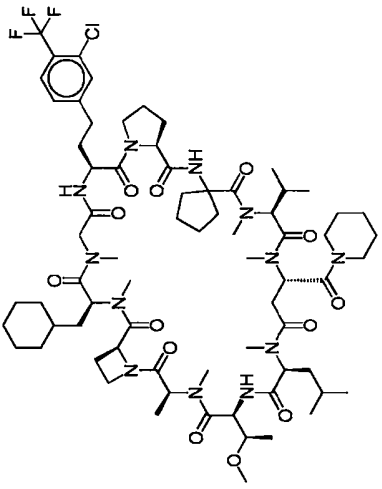
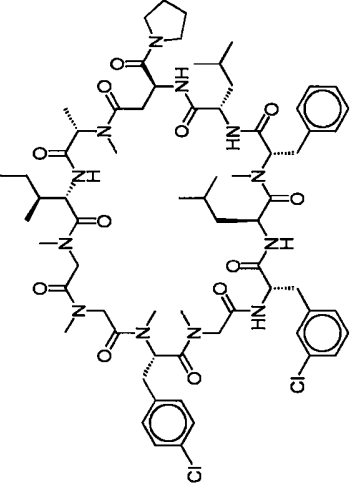
	
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[5299]

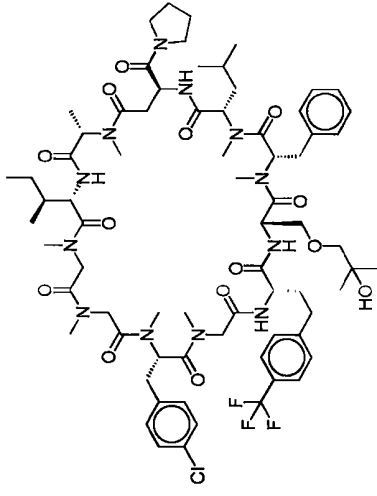
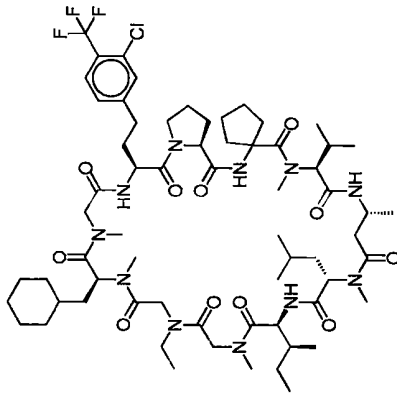
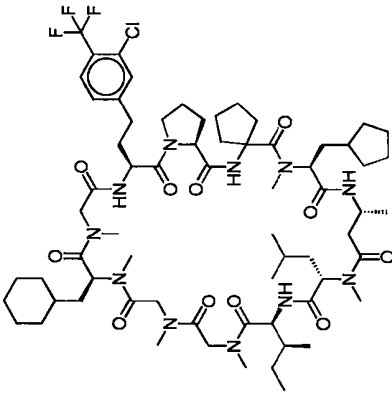
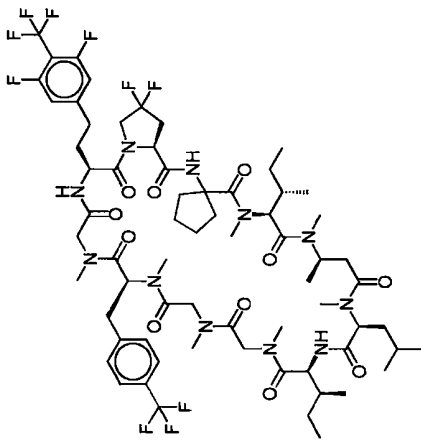
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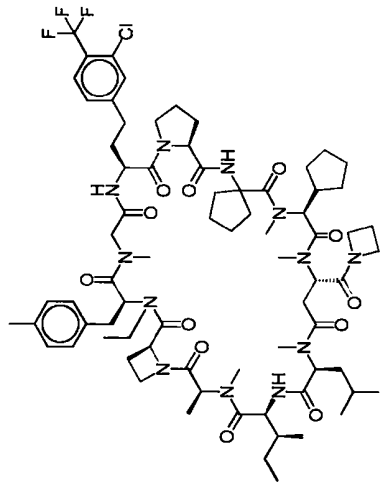
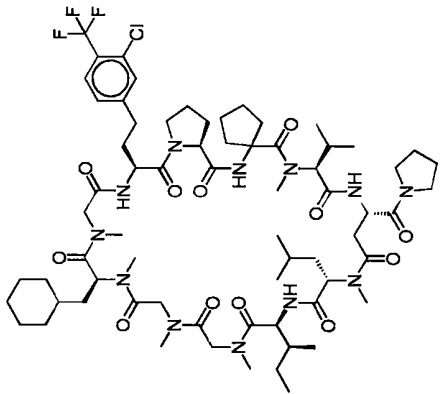
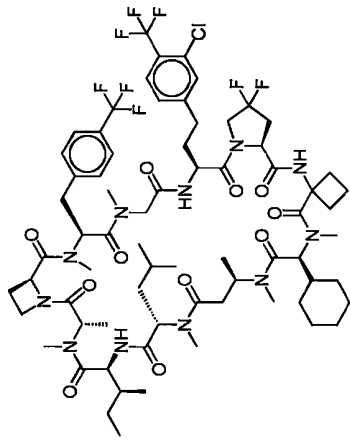
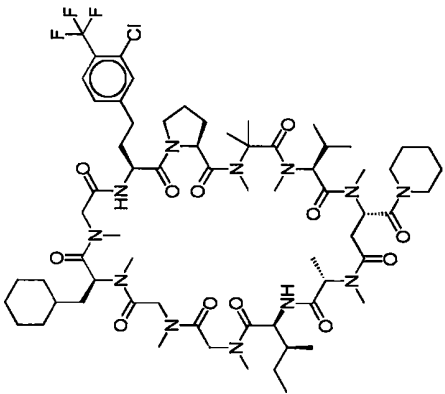
	
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[5301]

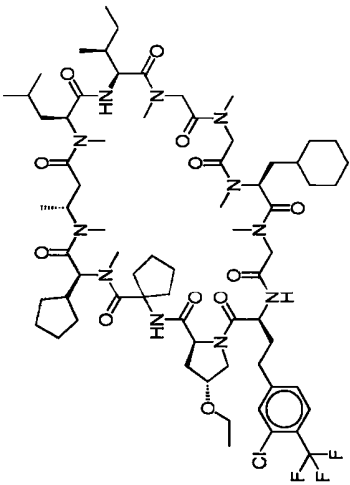
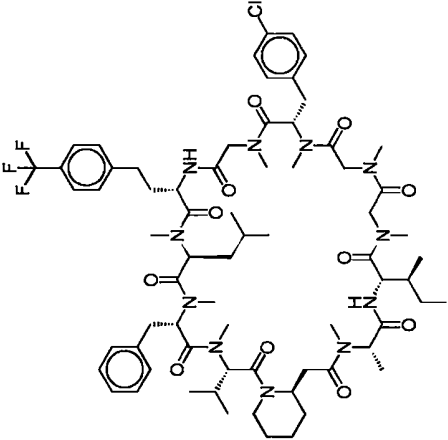
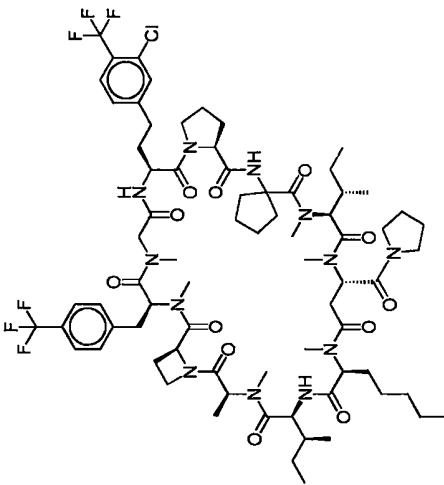
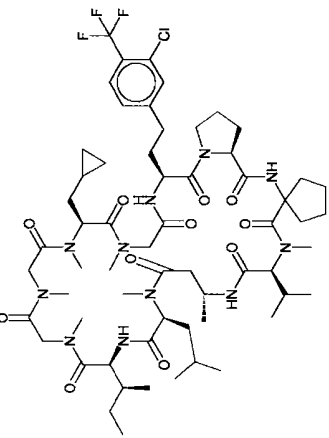
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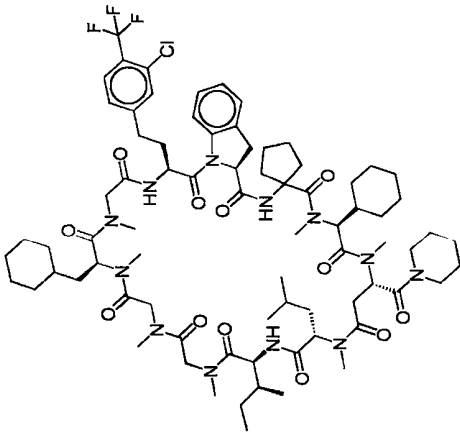
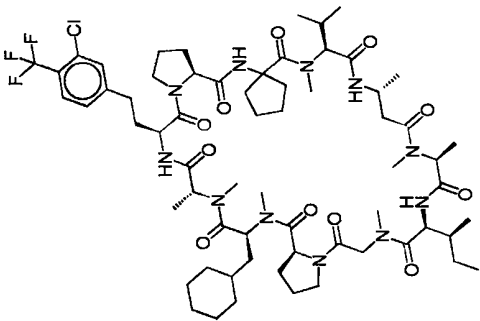
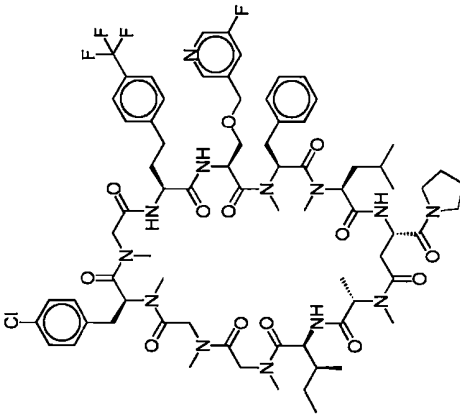
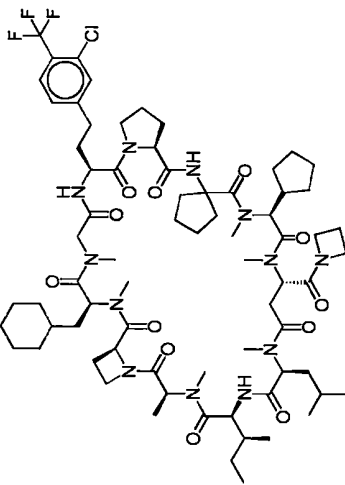
[5303]

	
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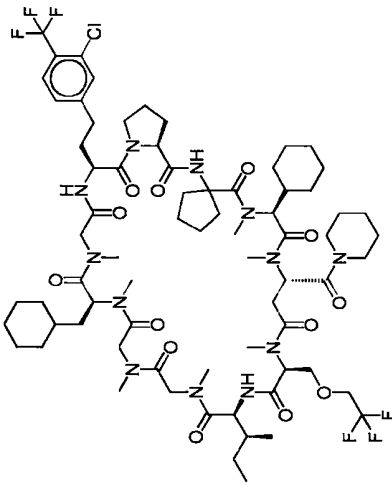
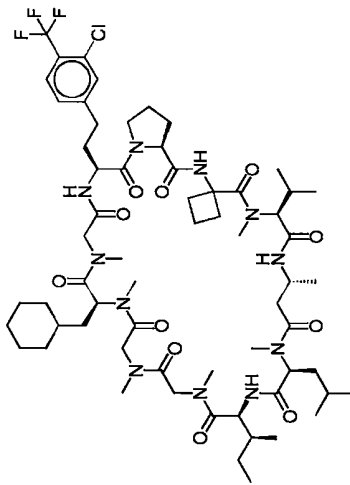
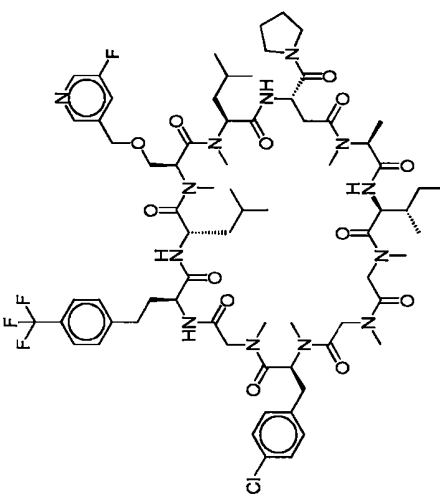
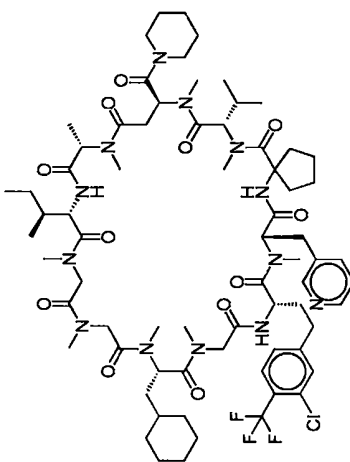
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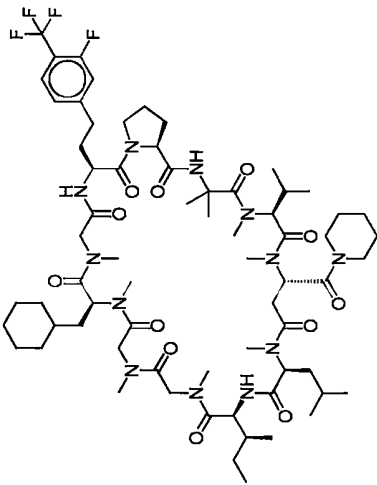
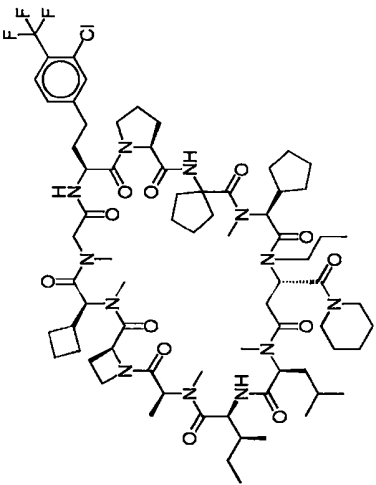
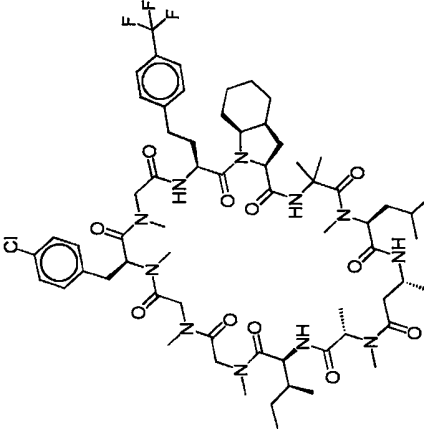
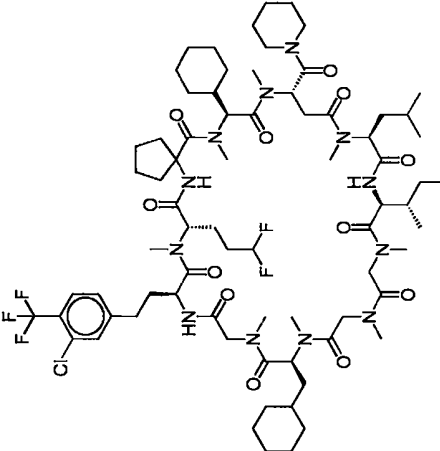
	
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[5305]

	
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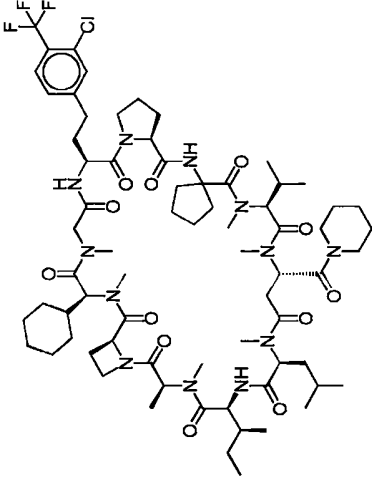
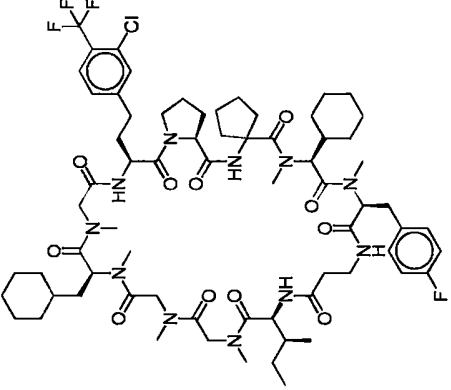
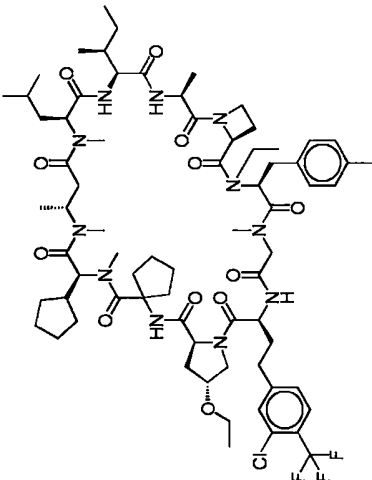
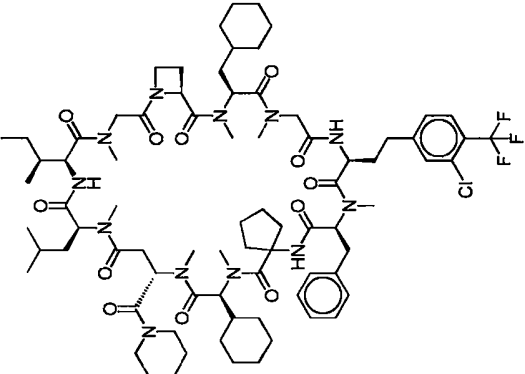
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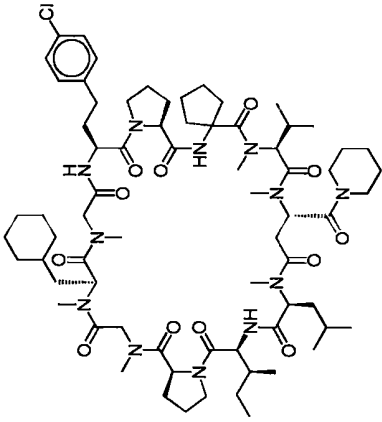
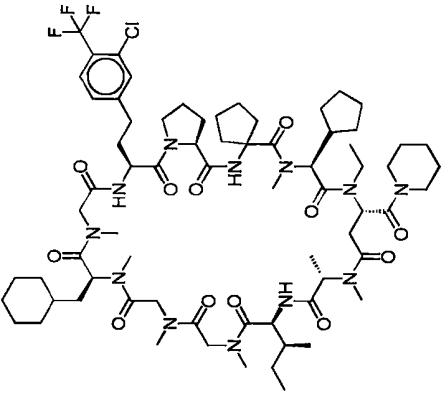
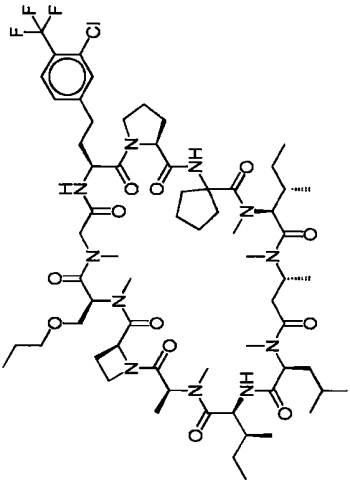
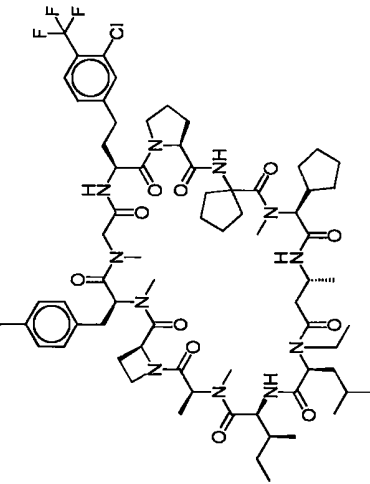
	
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[5307]

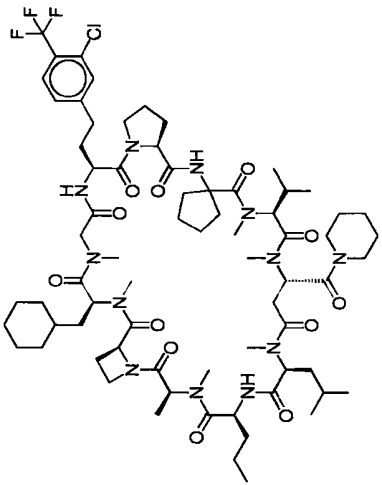
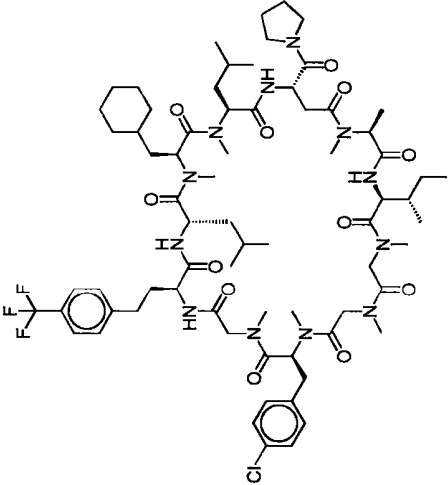
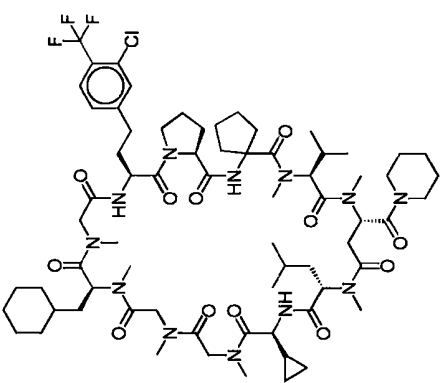
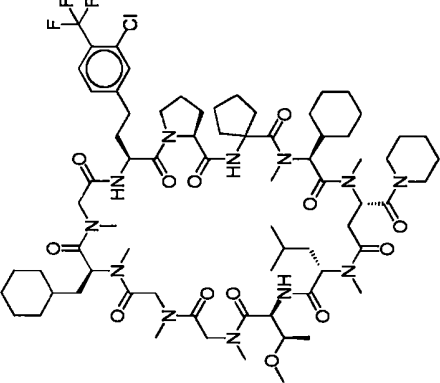
[5308]

	
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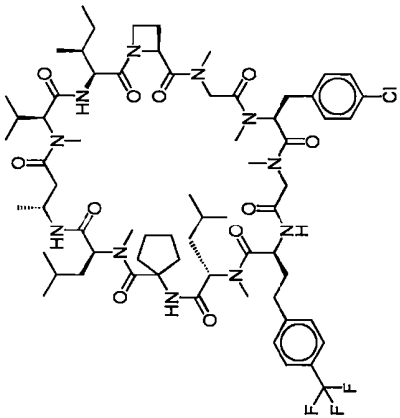
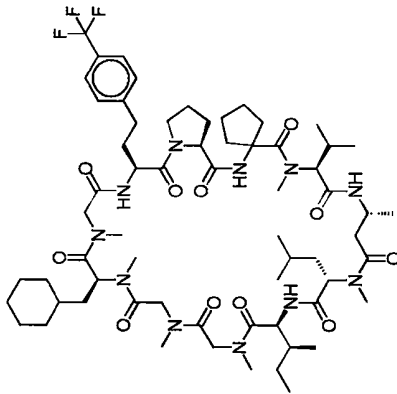
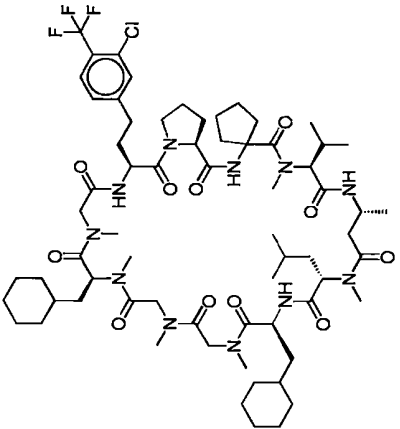
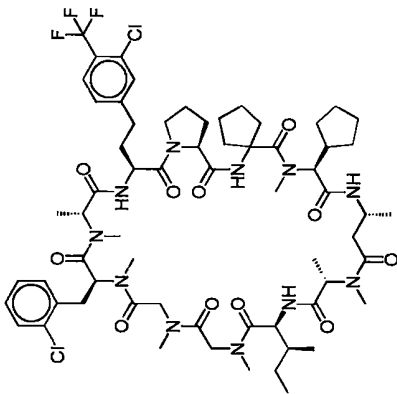
	
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[5309]

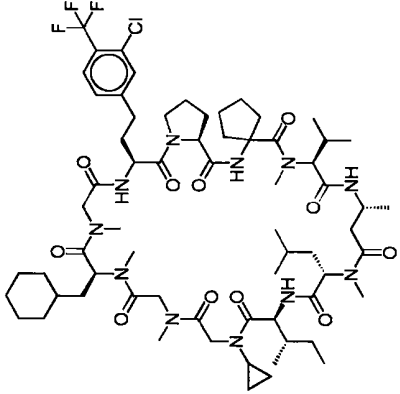
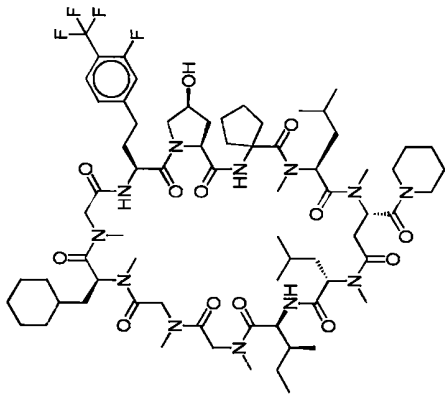
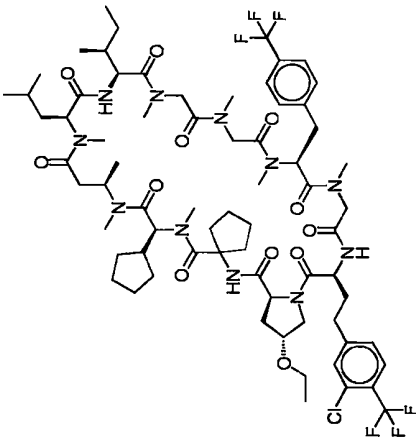
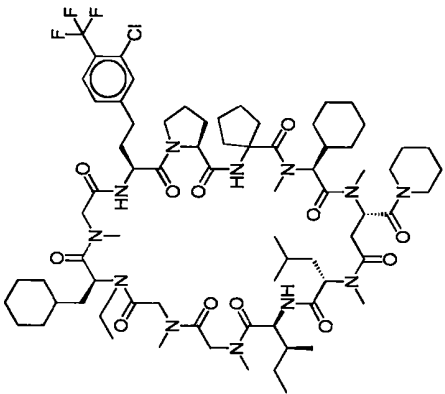
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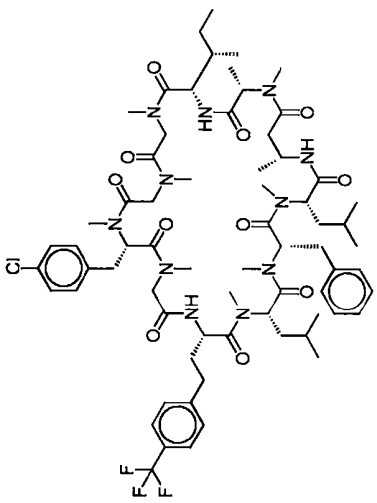
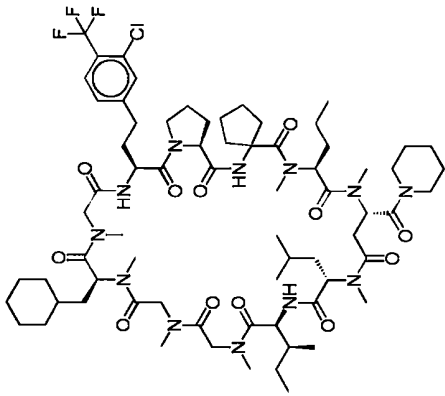
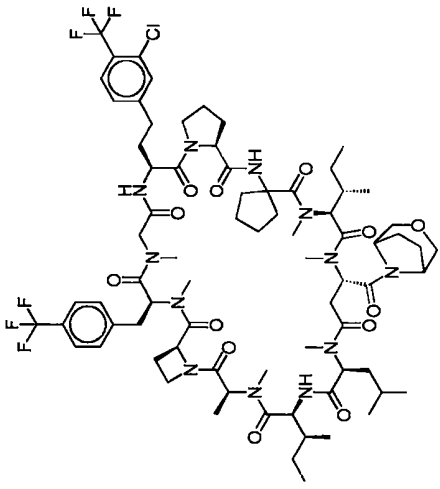
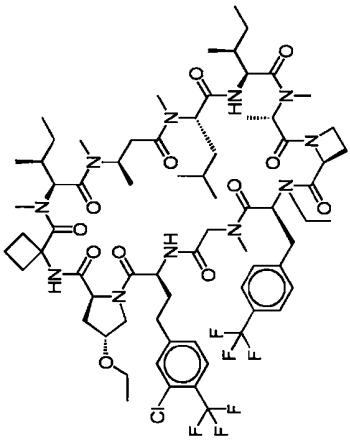
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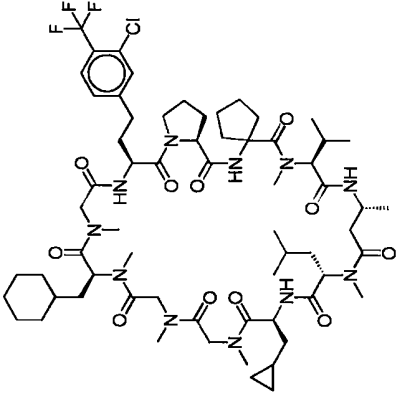
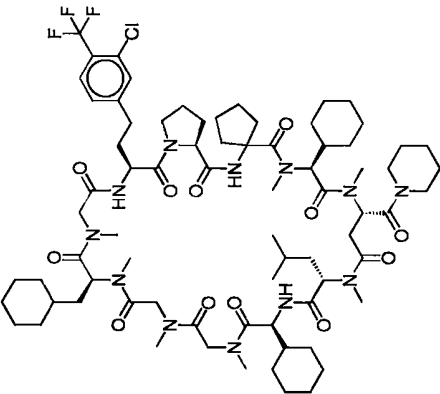
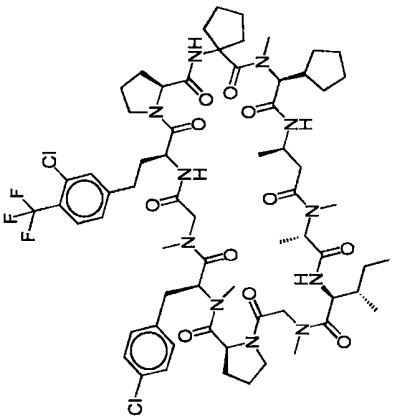
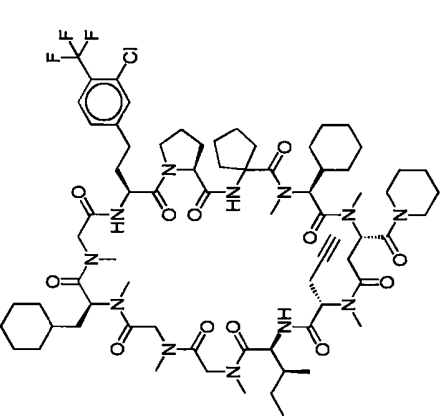
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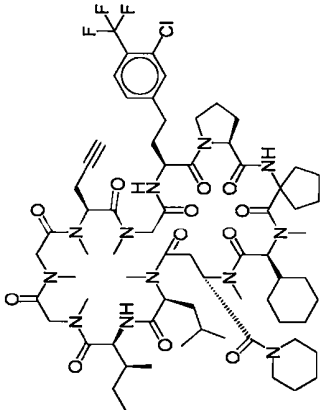
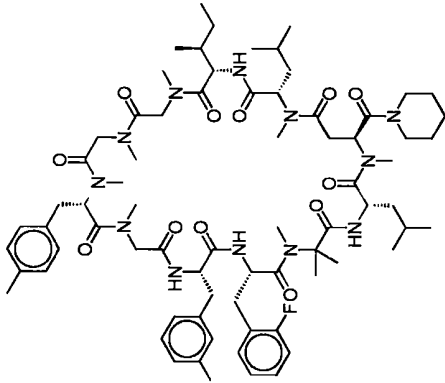
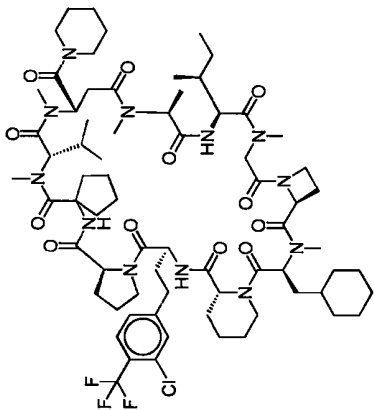
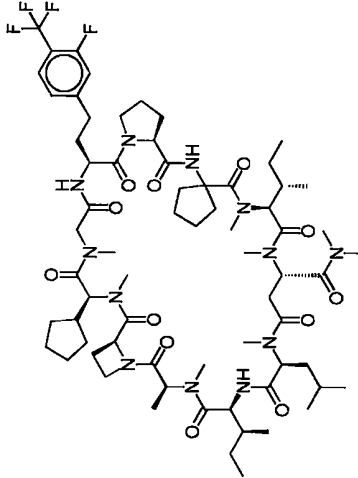
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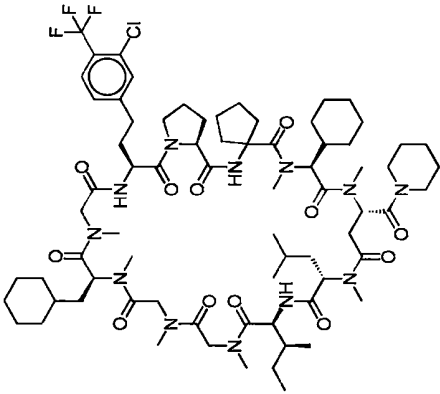
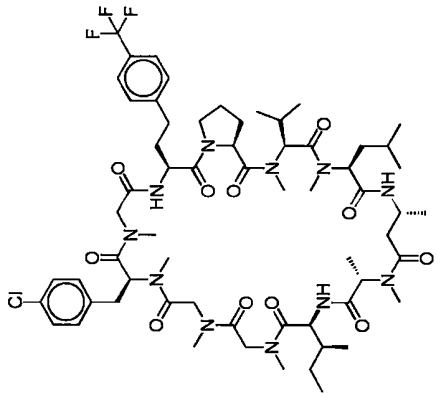
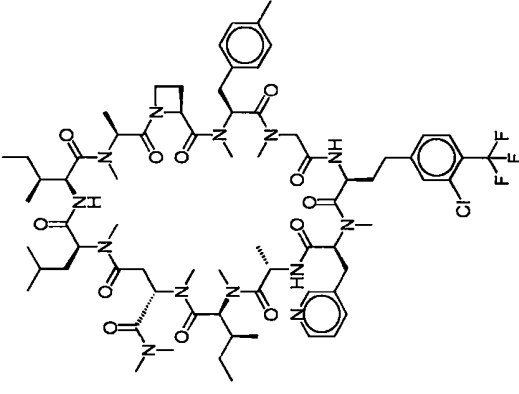
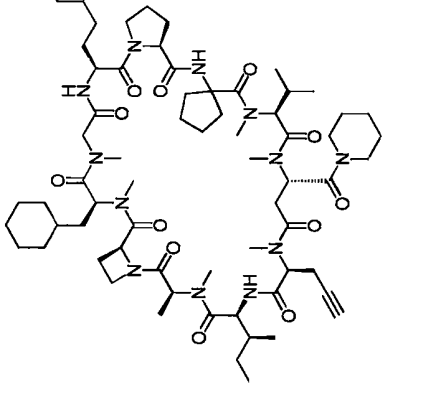
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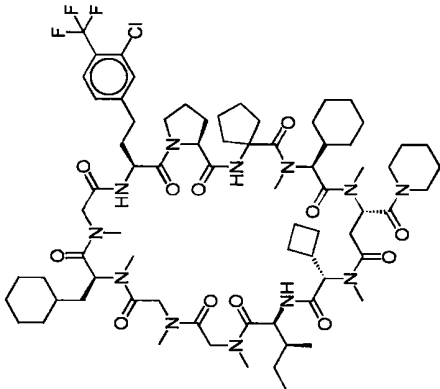
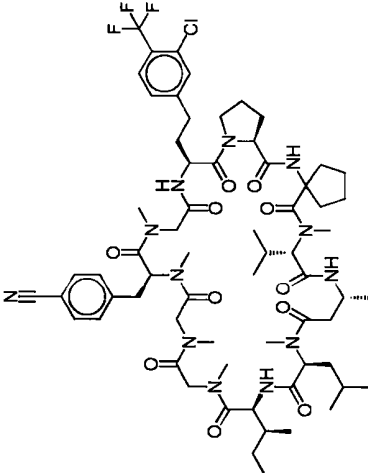
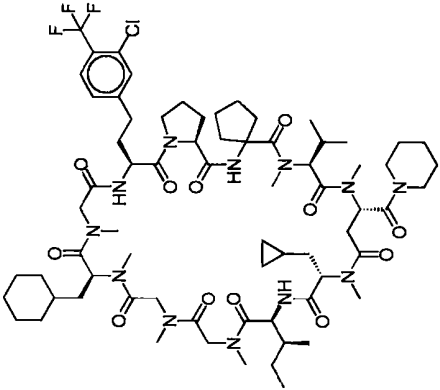
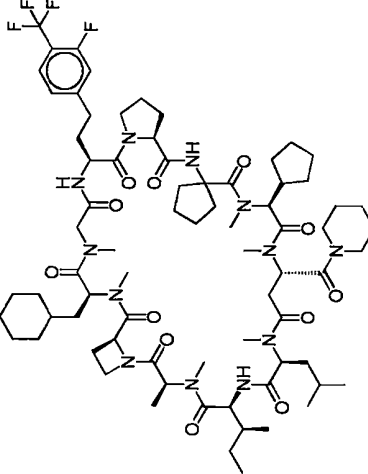
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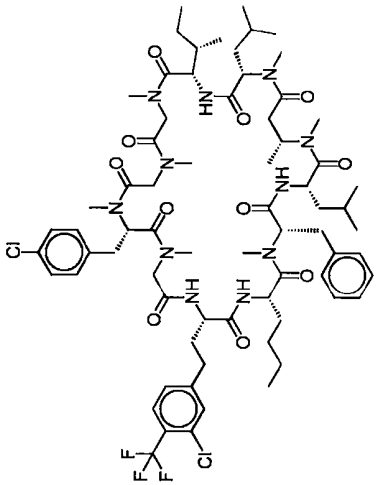
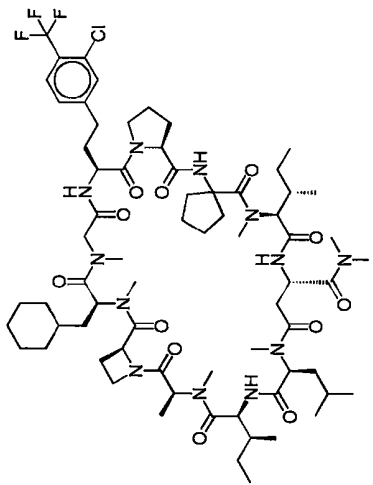
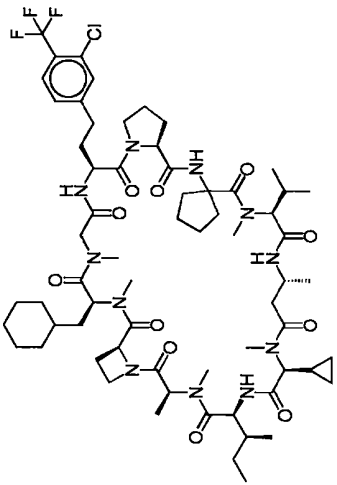
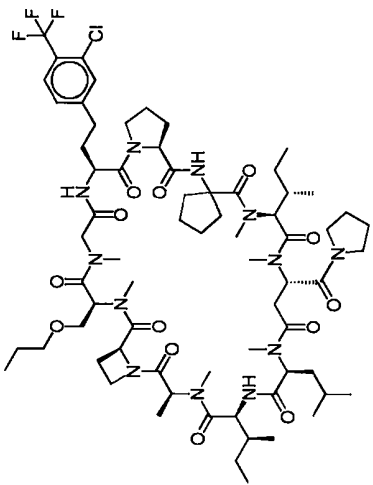
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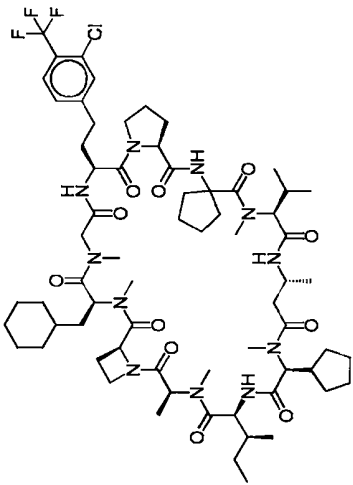
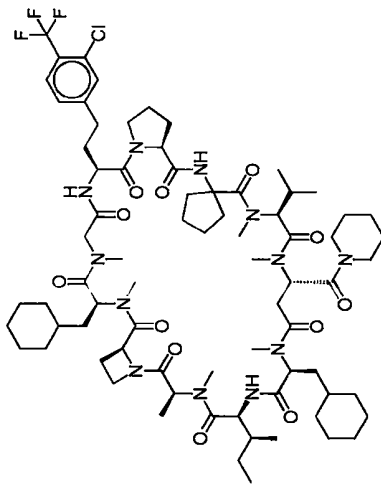
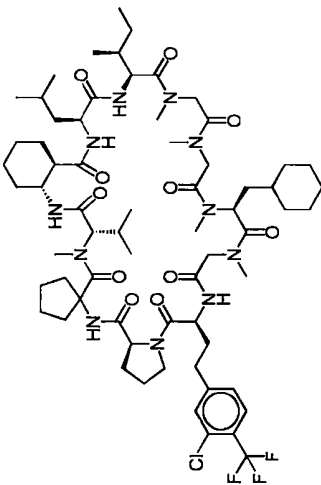
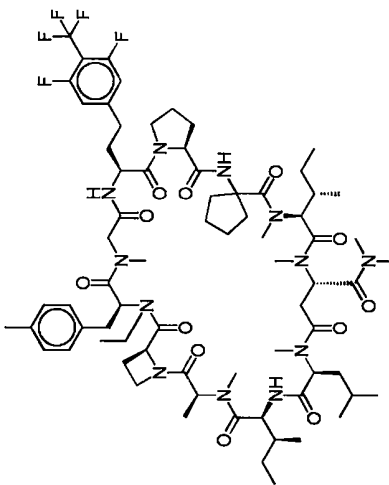
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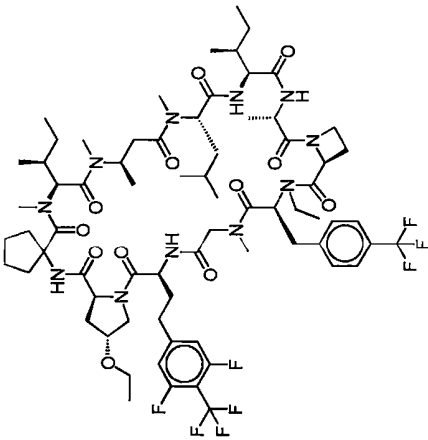
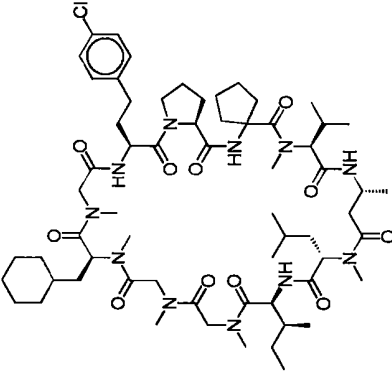
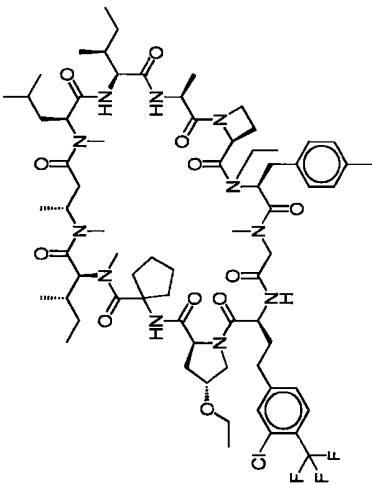
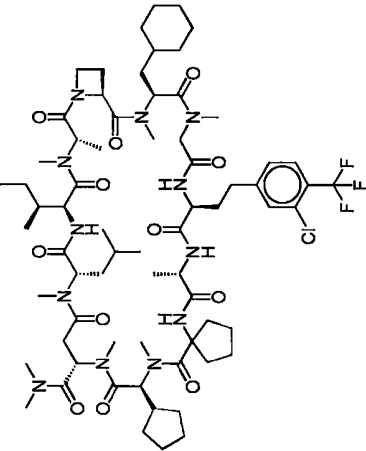
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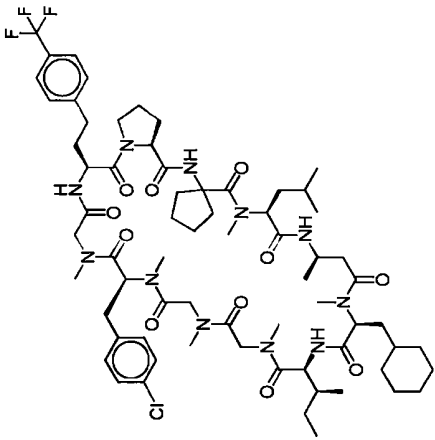
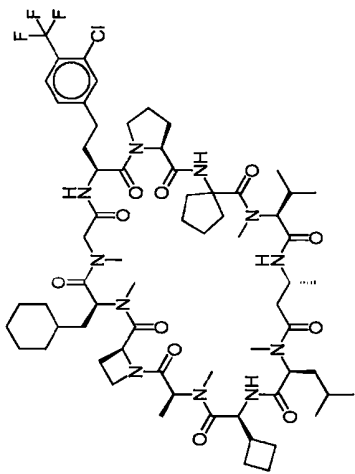
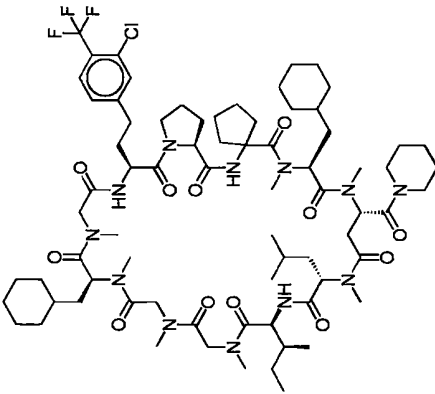
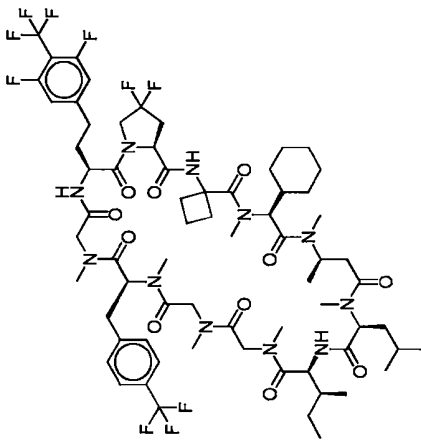
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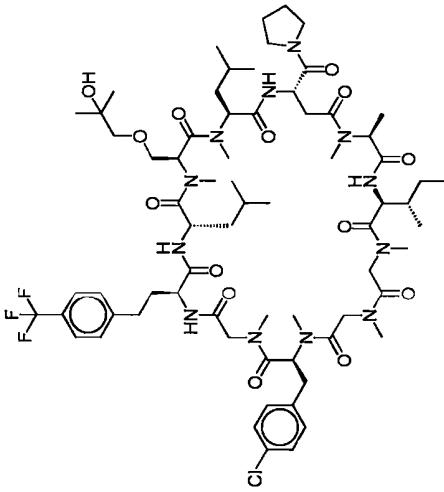
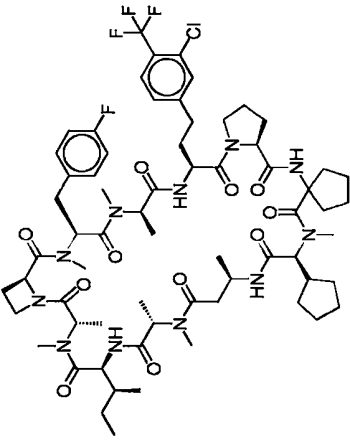
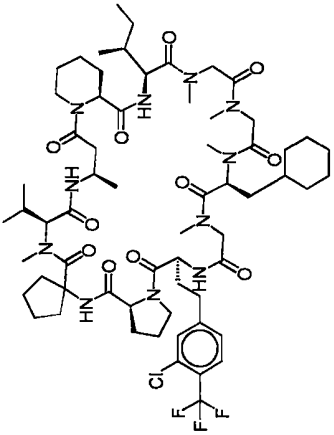
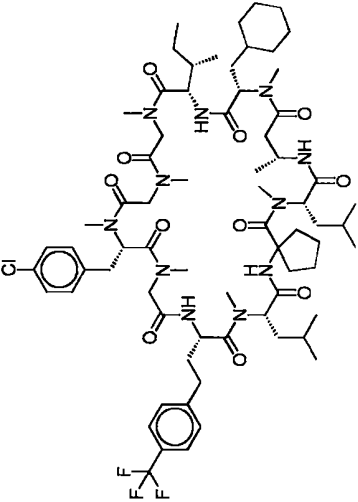
	
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[5320]

	
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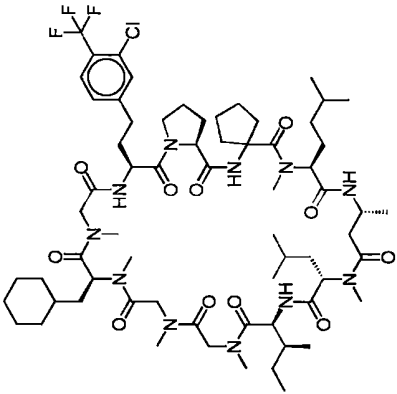
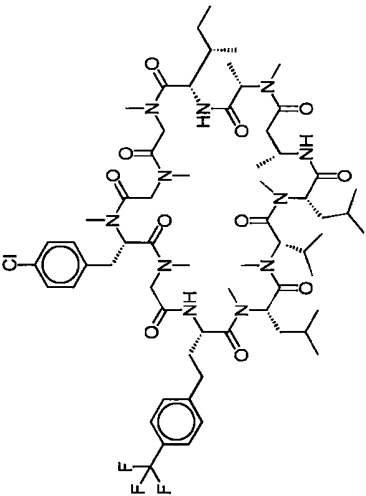
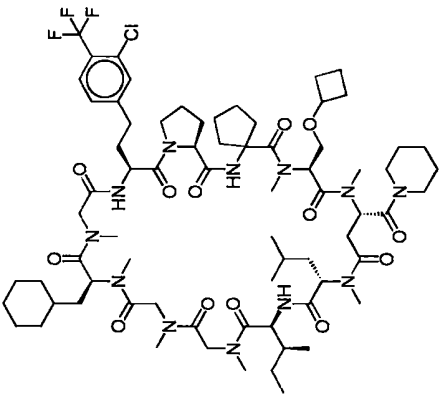
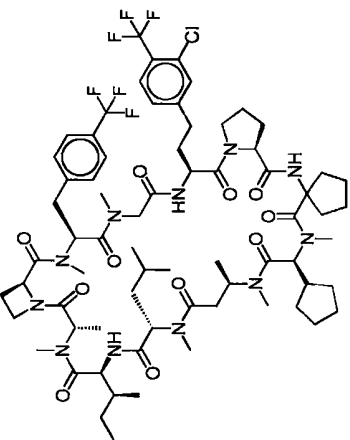
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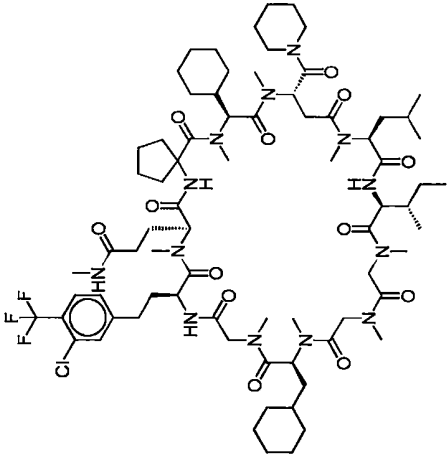
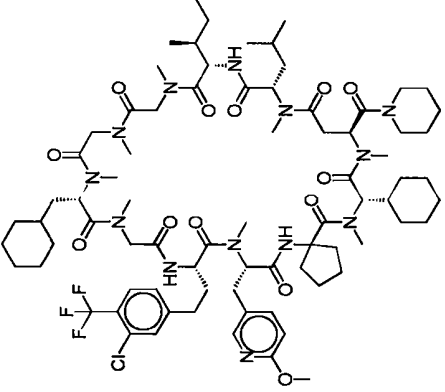
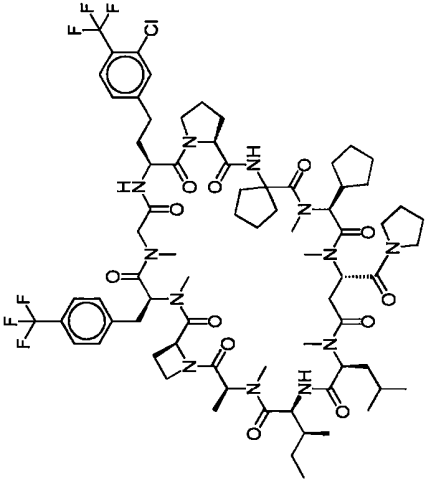
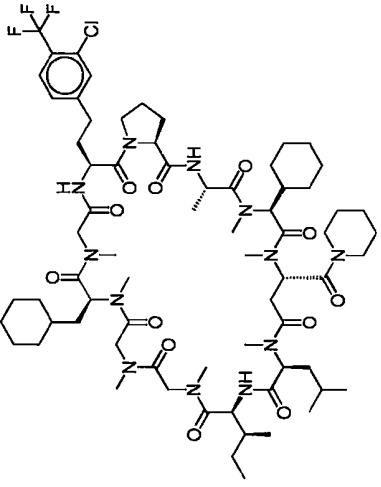
	
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[5322]

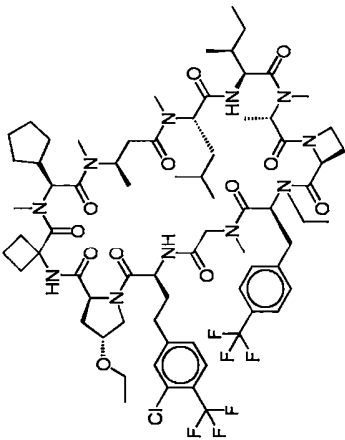
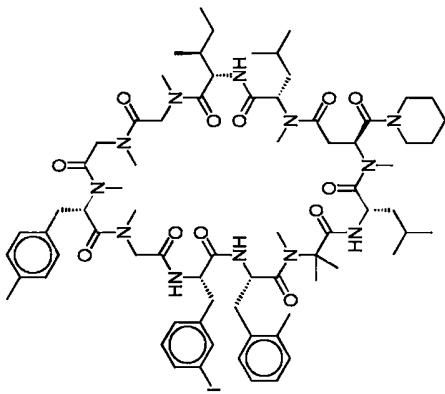
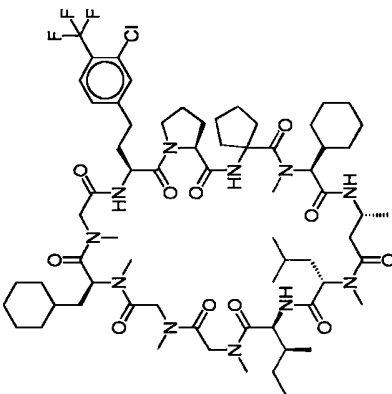
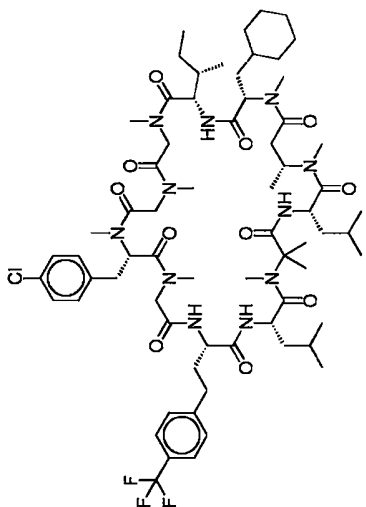
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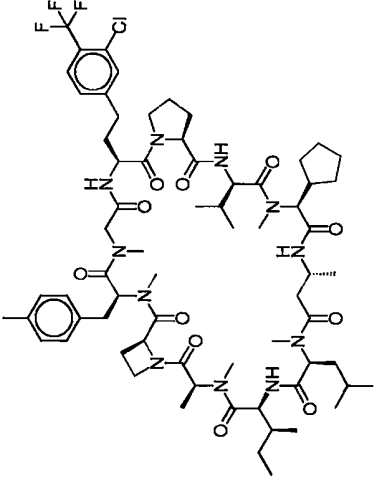
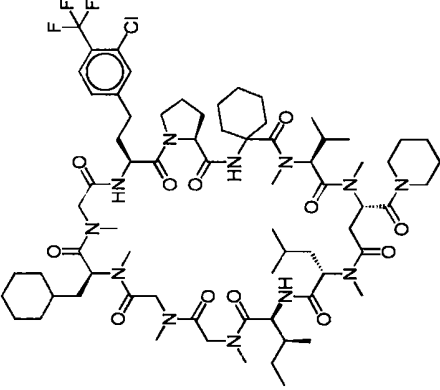
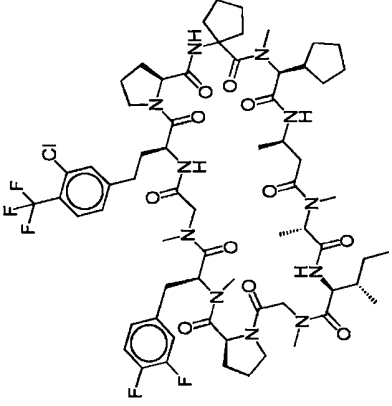
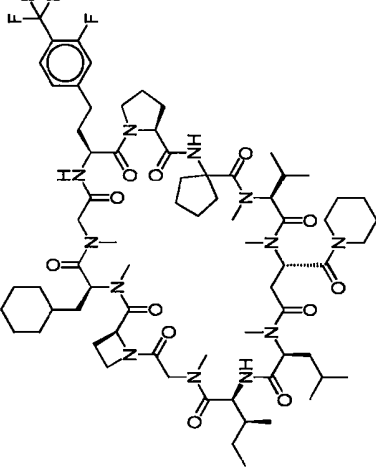
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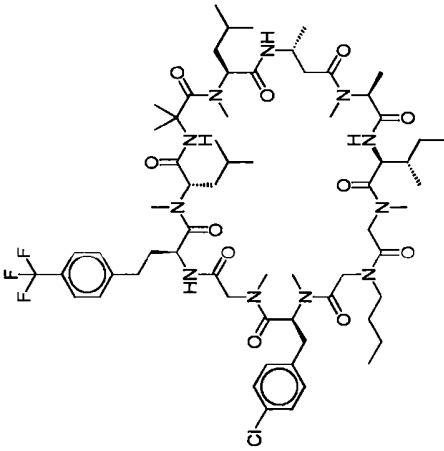
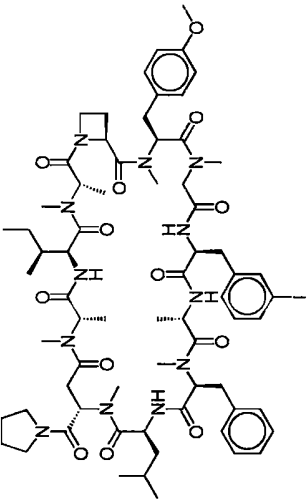
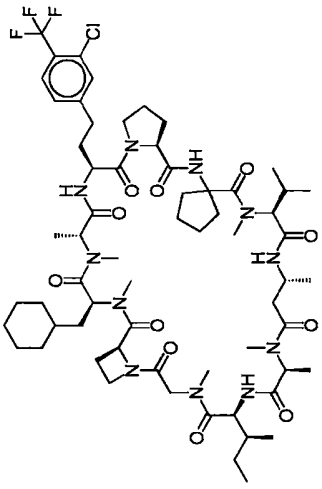
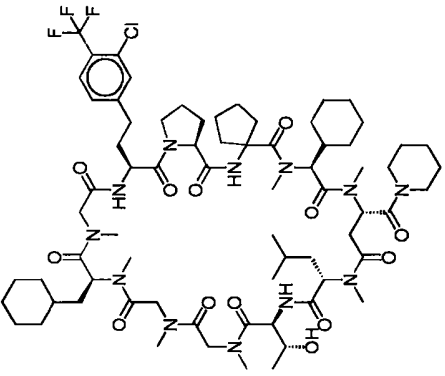
	
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[5325]

	
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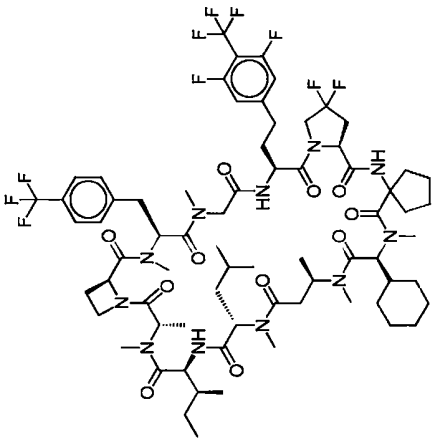
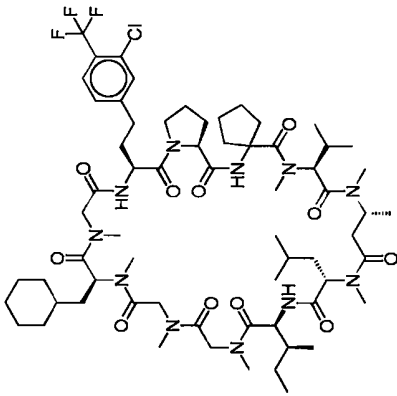
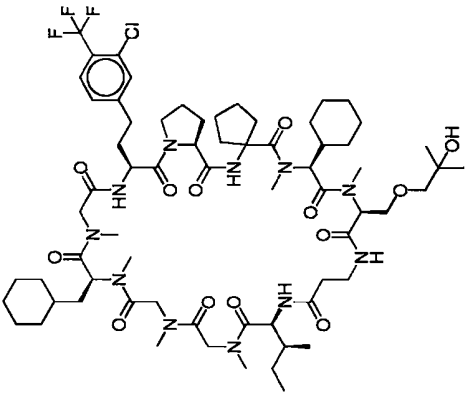
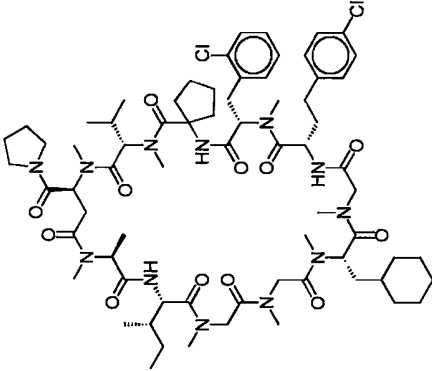
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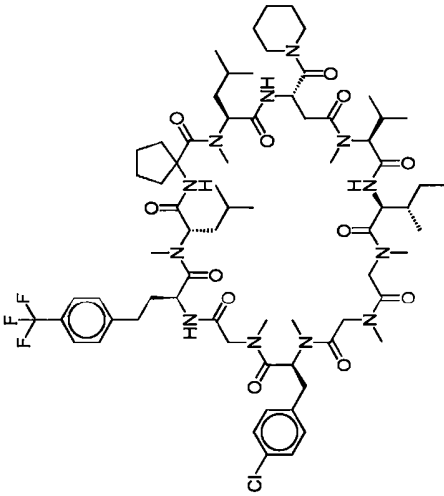
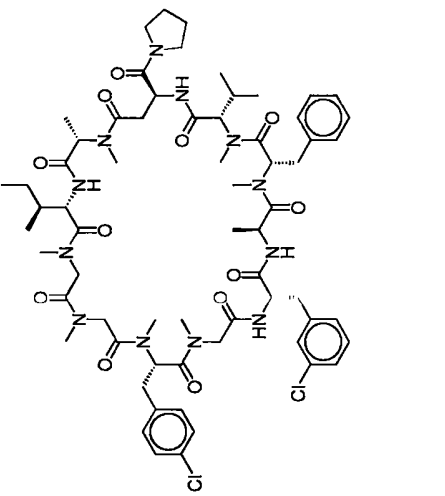
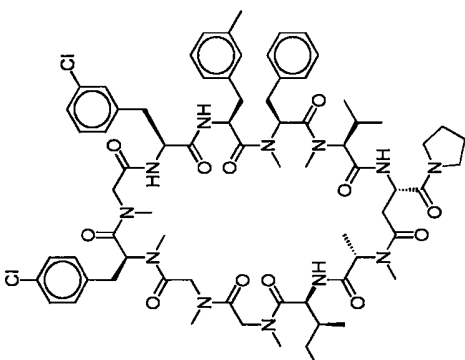
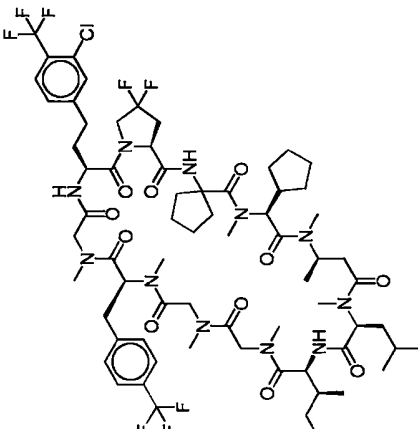
	
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[5327]

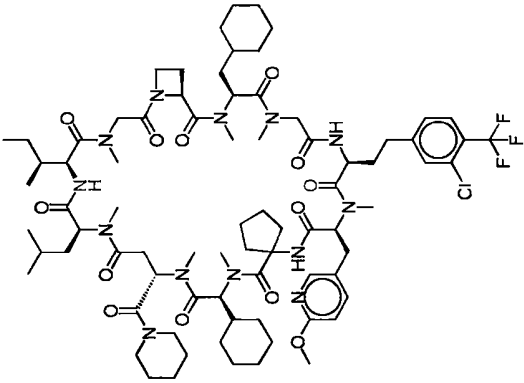
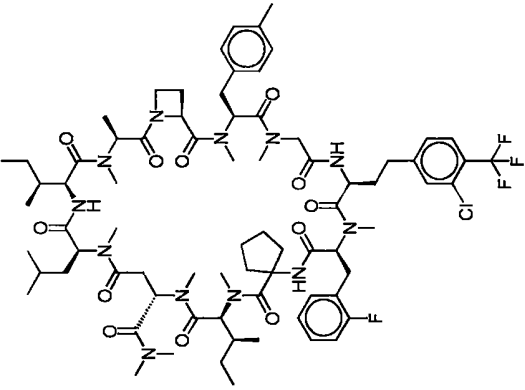
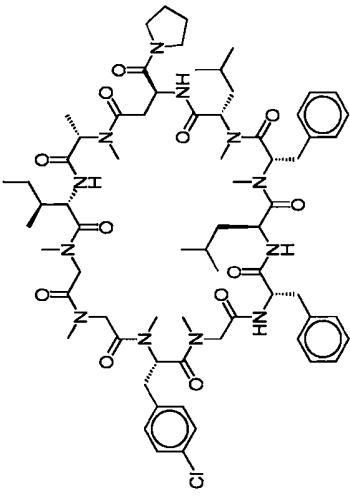
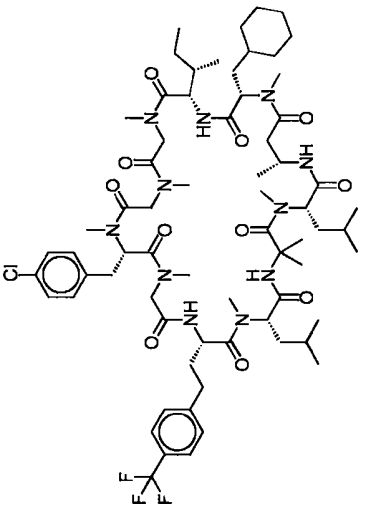
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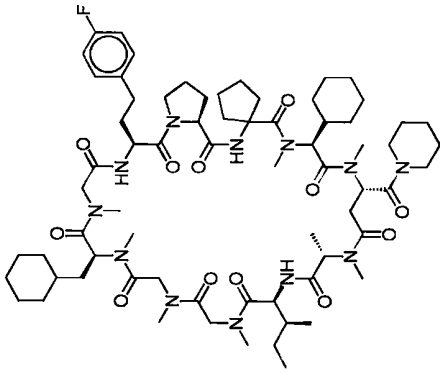
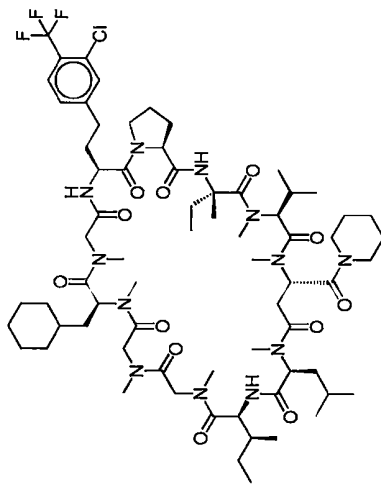
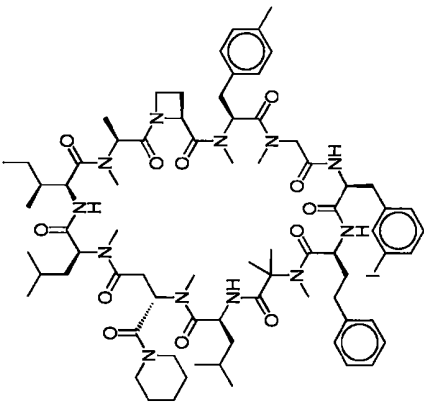
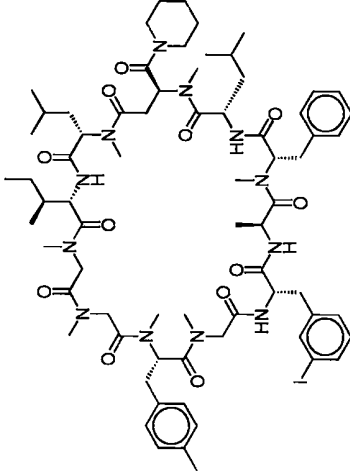
	
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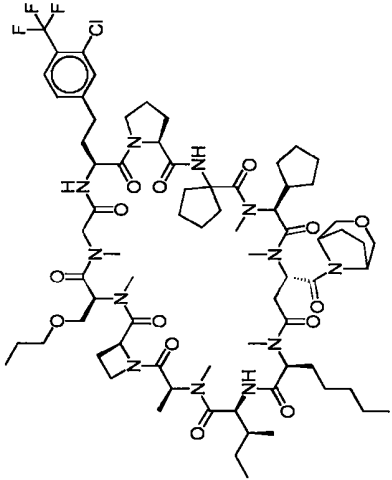
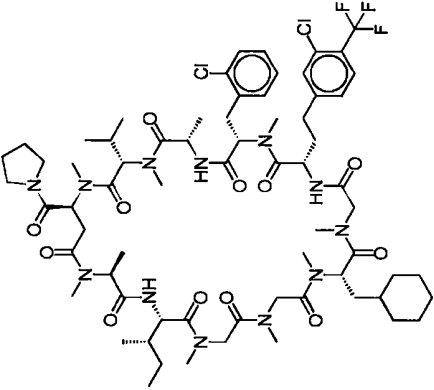
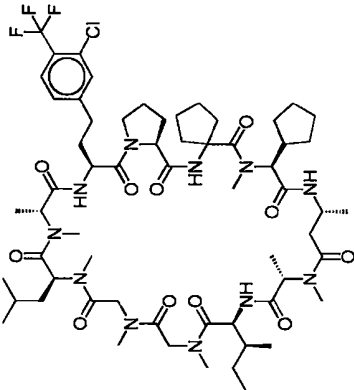
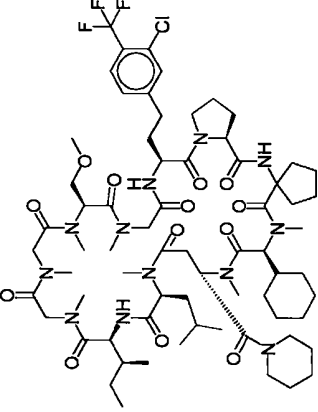
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[5330]

	
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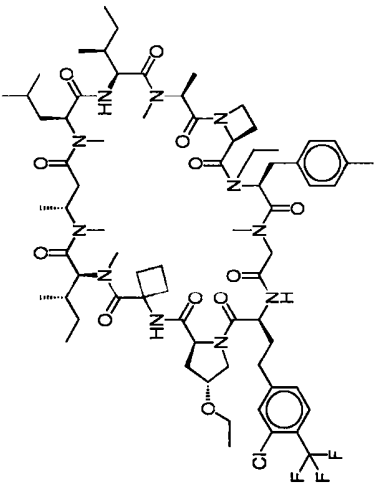
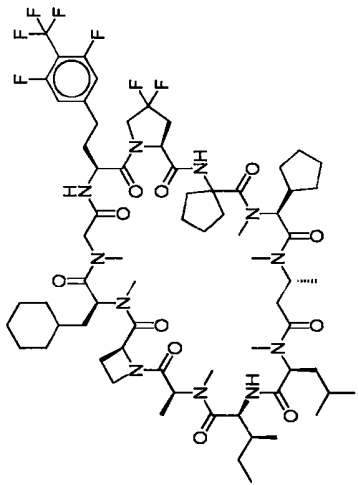
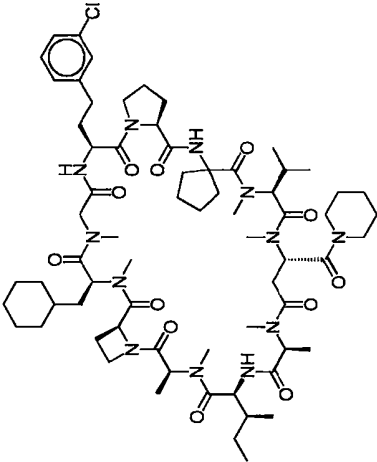
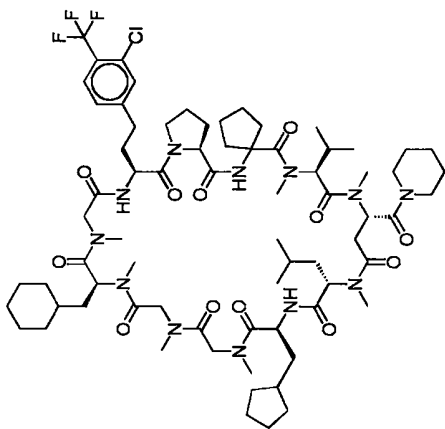
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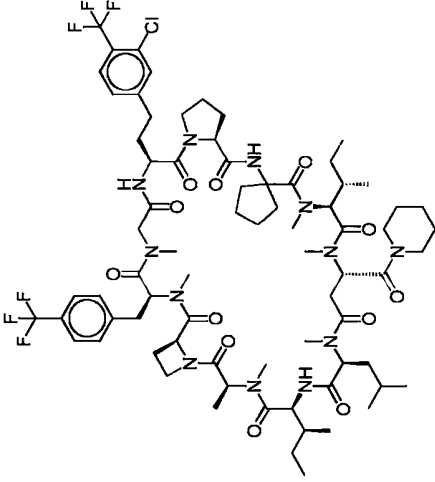
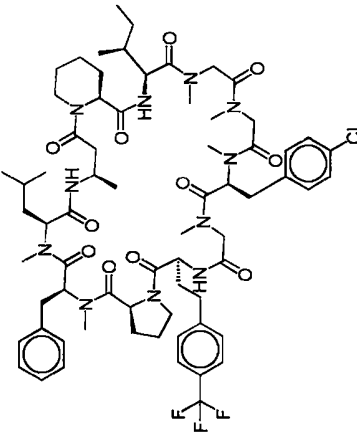
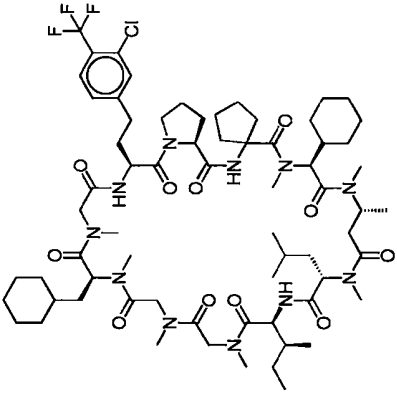
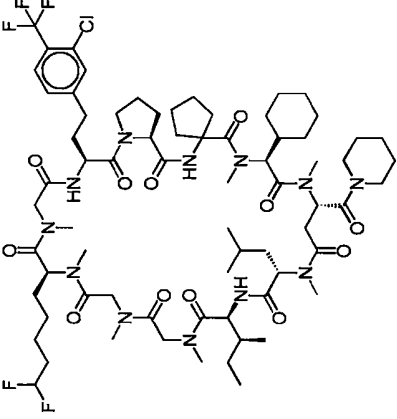
	
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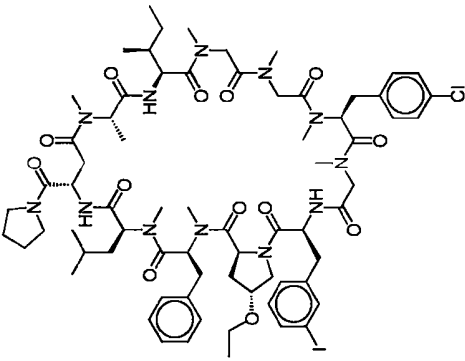
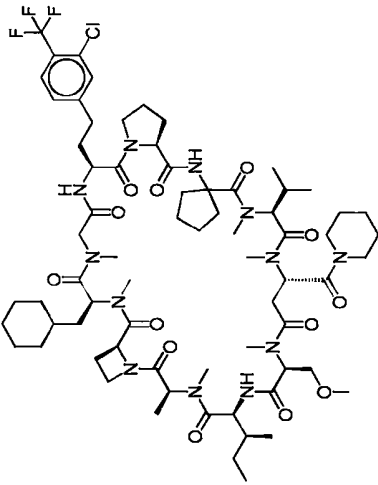
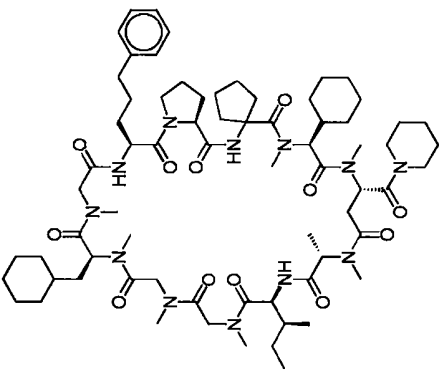
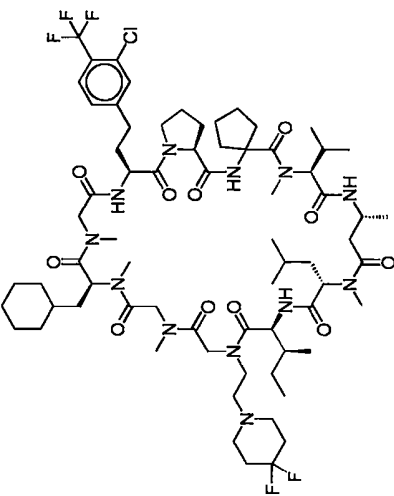
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[5333]

	
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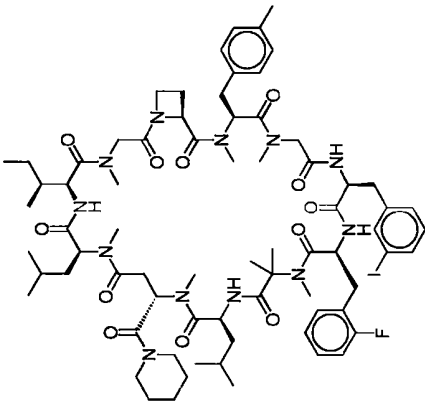
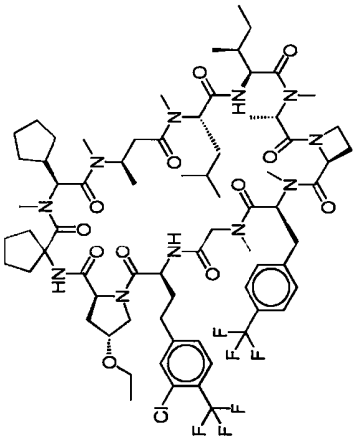
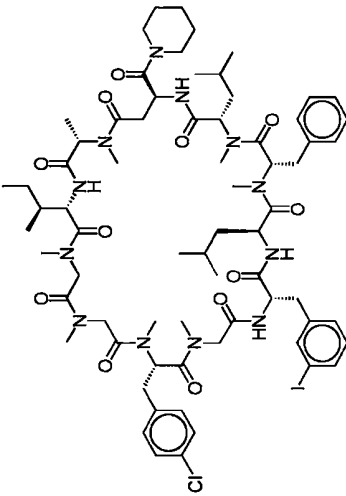
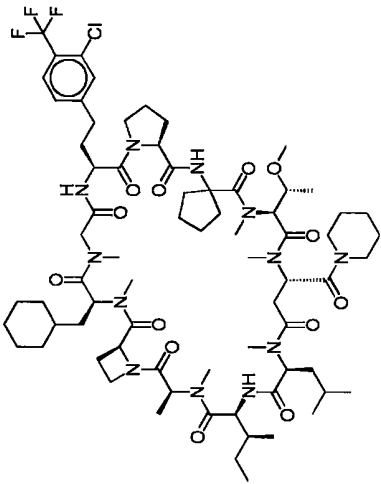
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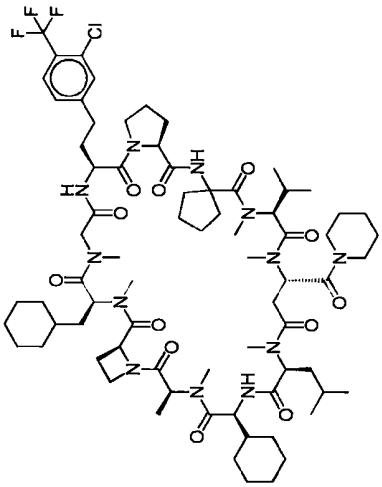
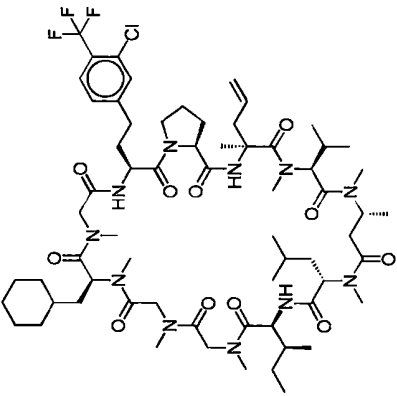
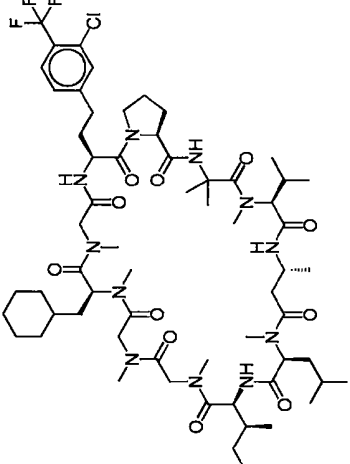
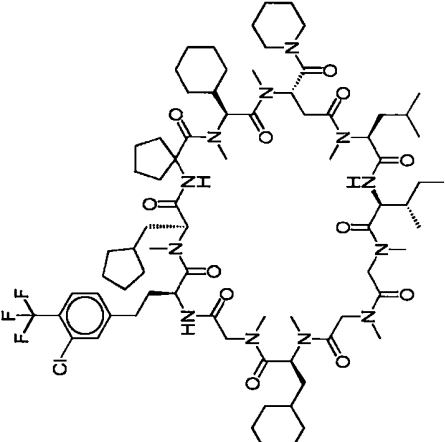
	
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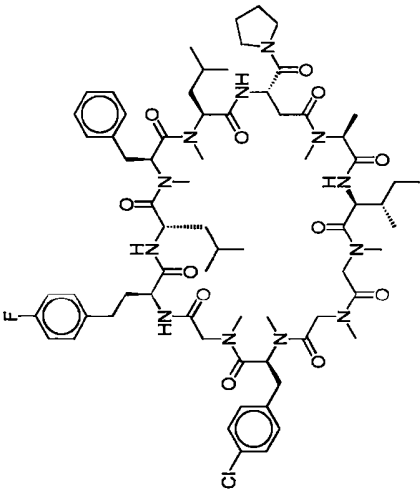
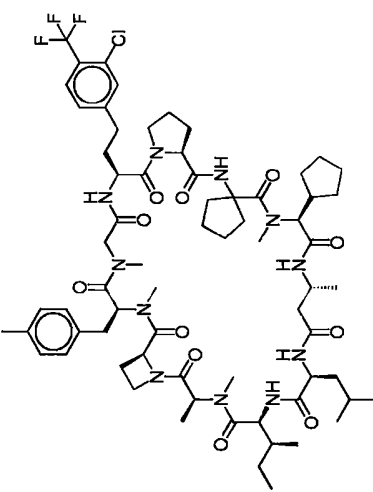
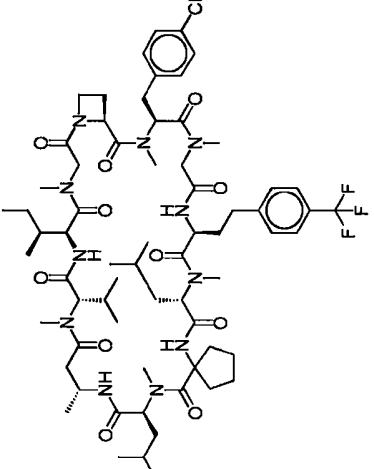
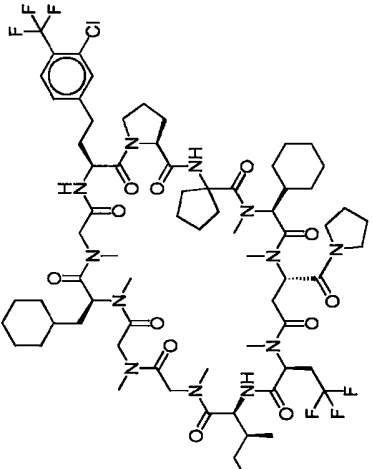
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[5336]

	
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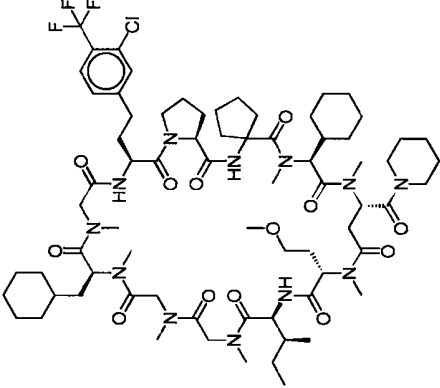
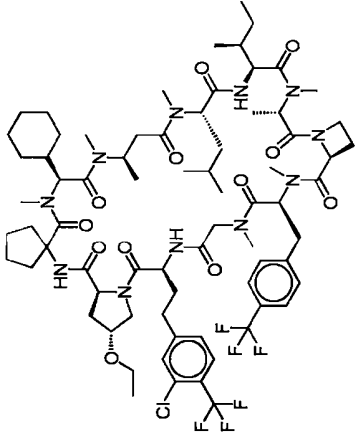
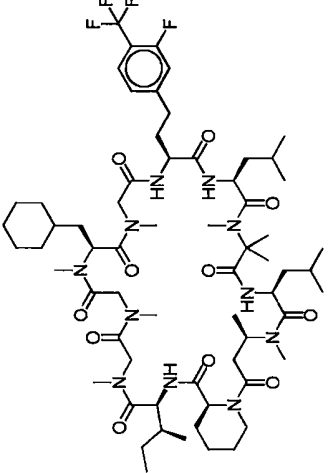
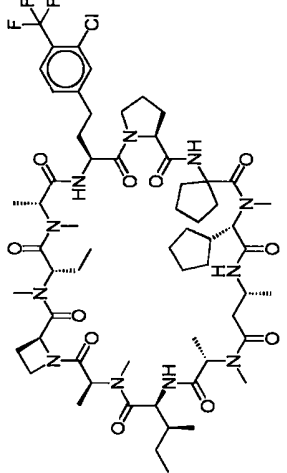
	
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[5337]

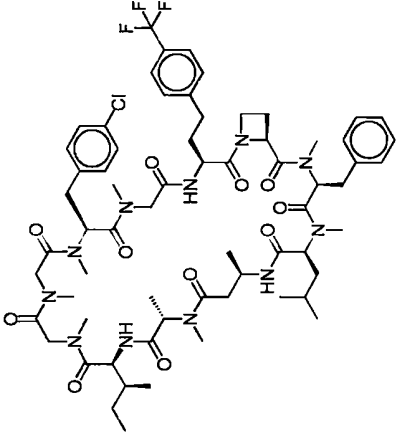
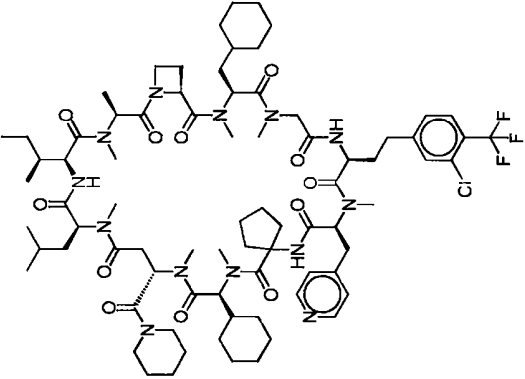
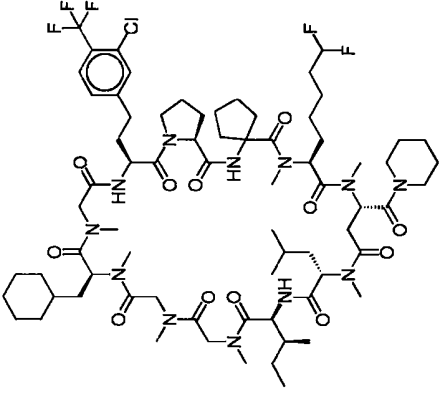
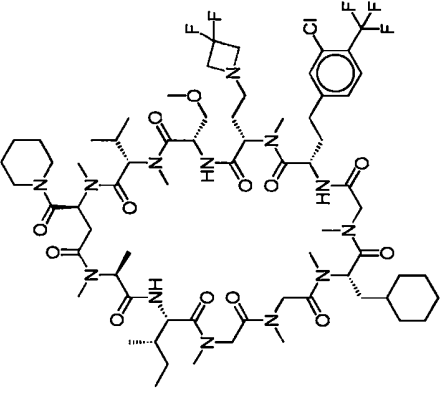
	
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[5338]

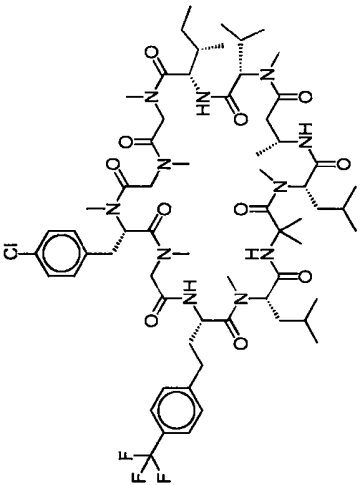
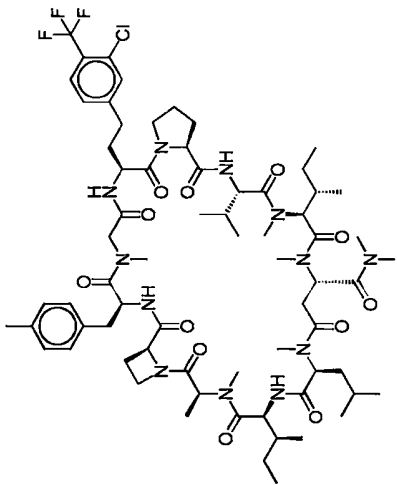
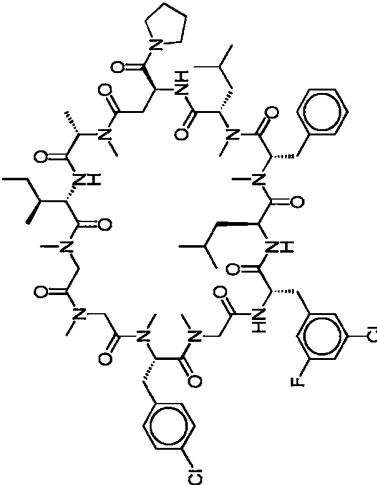
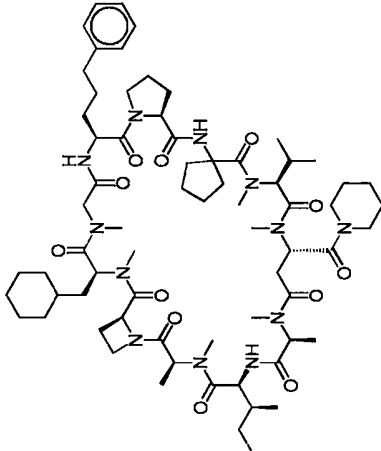
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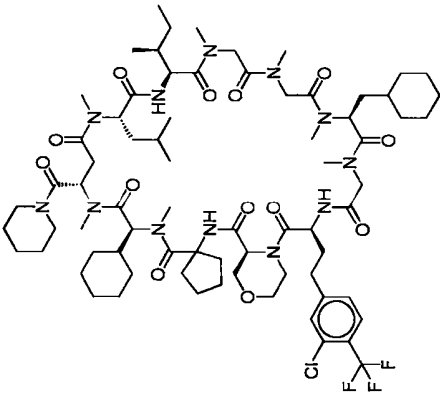
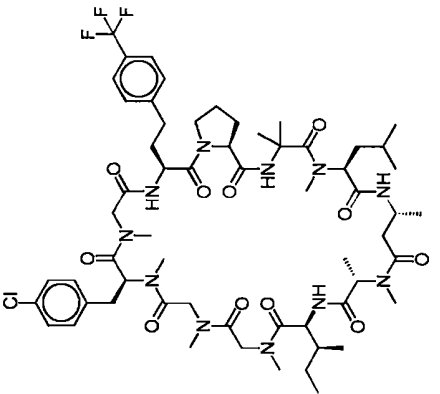
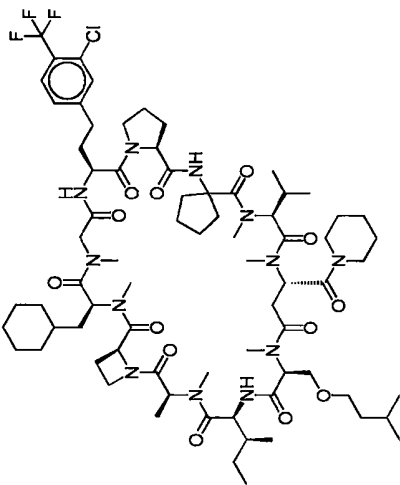
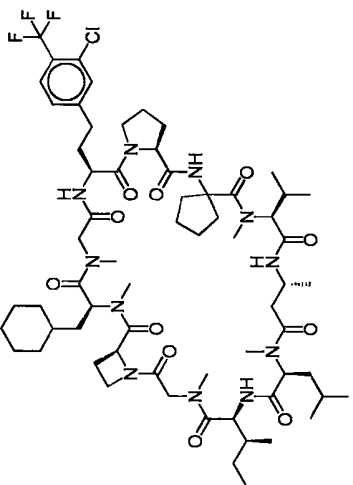
	
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[5340]

	
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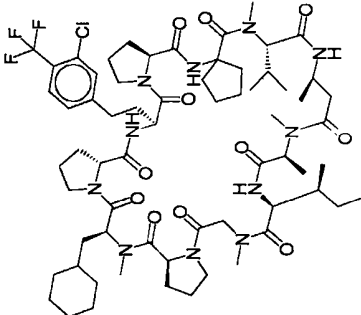
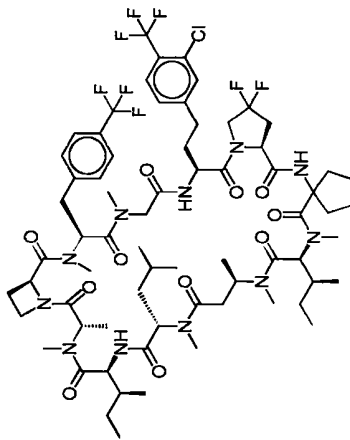
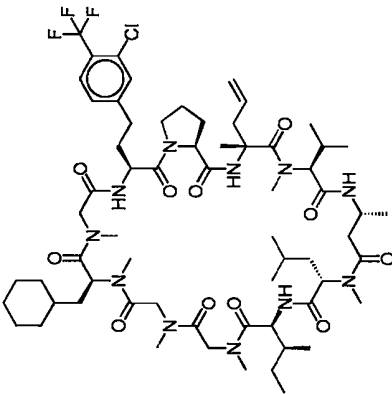
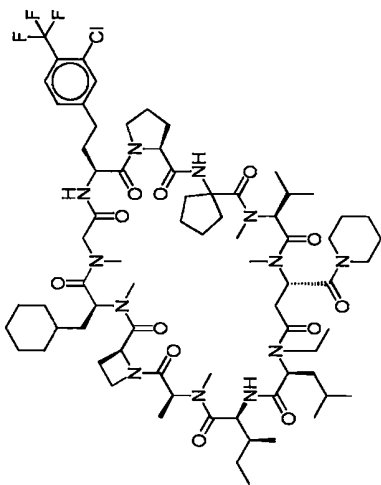
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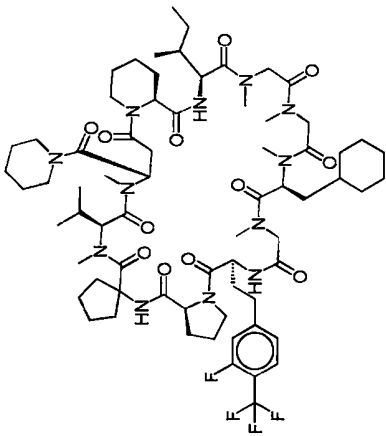
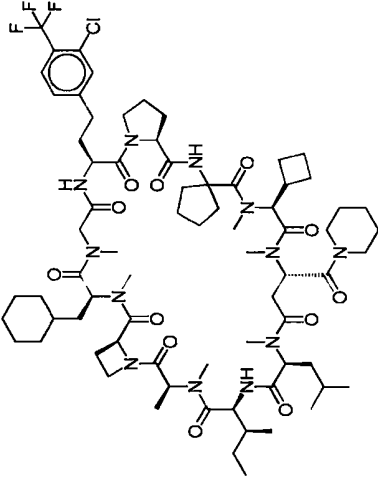
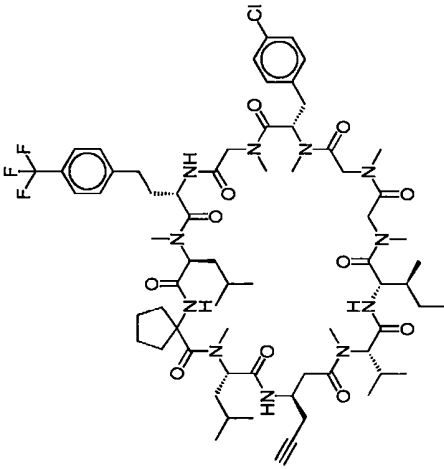
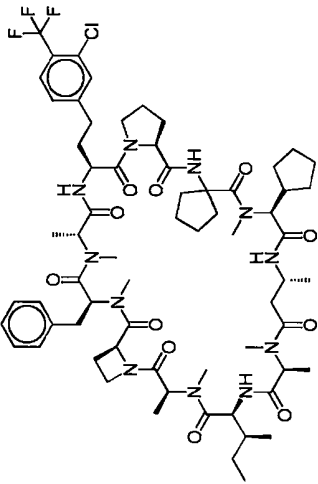
 Chemical structure of compound 662, a complex macrocyclic peptide derivative. It features a large ring with multiple amide bonds, including a piperidine ring, a cyclohexyl group, and a 4-chloro-2,2,2-trifluorophenyl group.	 Chemical structure of compound 664, a complex macrocyclic peptide derivative. It features a large ring with multiple amide bonds, including a piperidine ring, a cyclohexyl group, and a 4-chloro-2,2,2-trifluorophenyl group.
662	664
 Chemical structure of compound 661, a complex macrocyclic peptide derivative. It features a large ring with multiple amide bonds, including a piperidine ring, a cyclohexyl group, and a 4-chloro-2,2,2-trifluorophenyl group.	 Chemical structure of compound 663, a complex macrocyclic peptide derivative. It features a large ring with multiple amide bonds, including a piperidine ring, a cyclohexyl group, and a 4-chloro-2,2,2-trifluorophenyl group.
661	663

[5342]

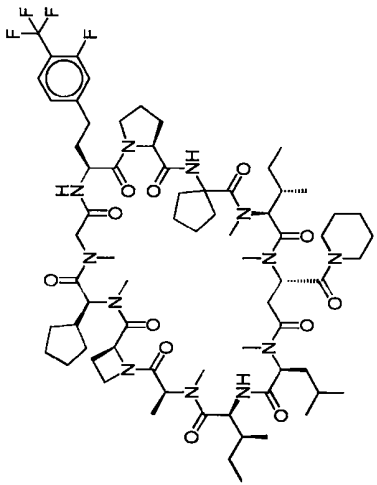
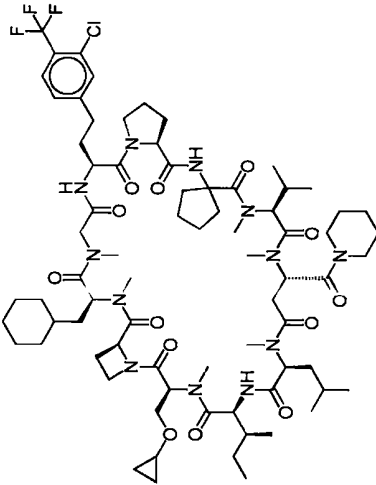
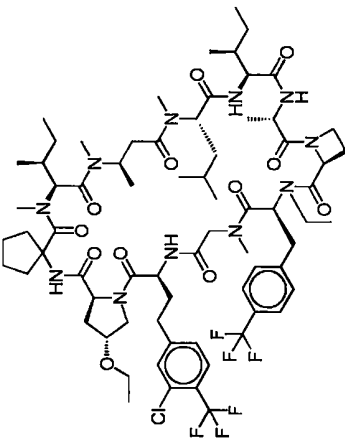
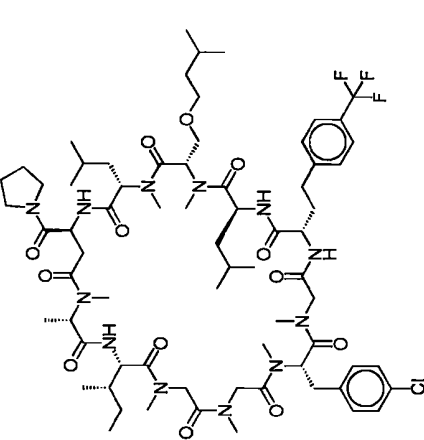
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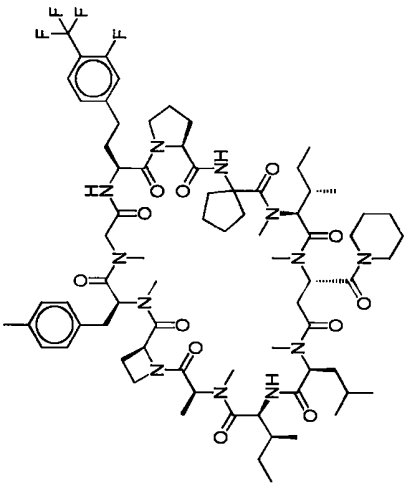
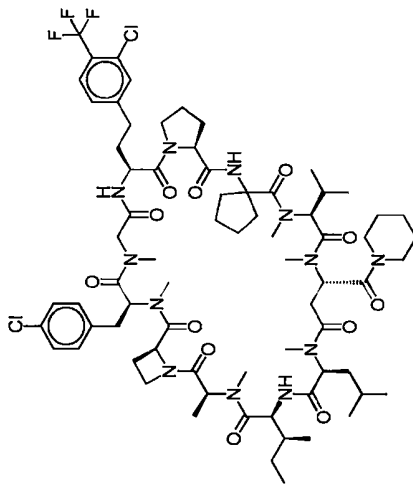
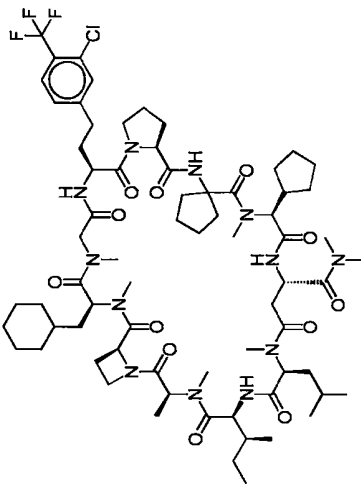
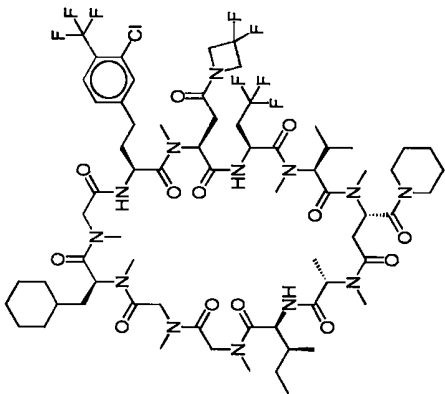
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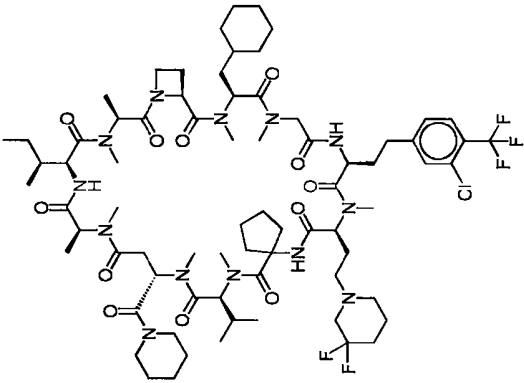
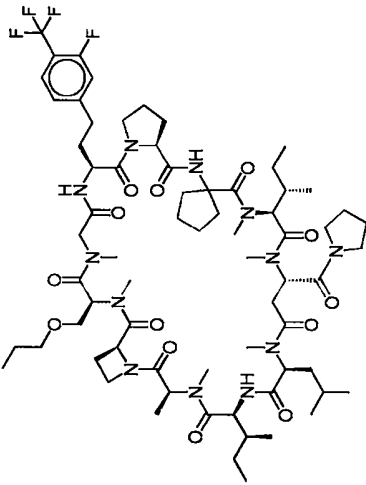
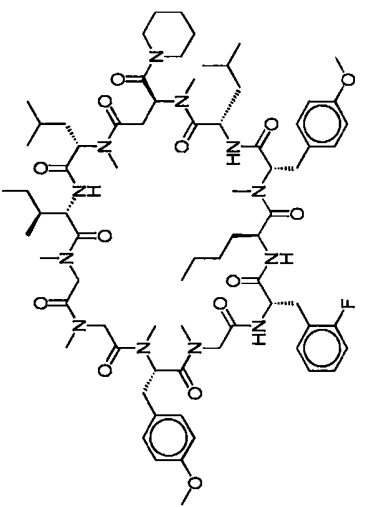
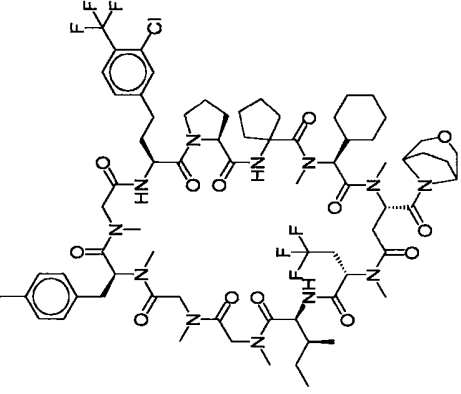
	
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[5345]

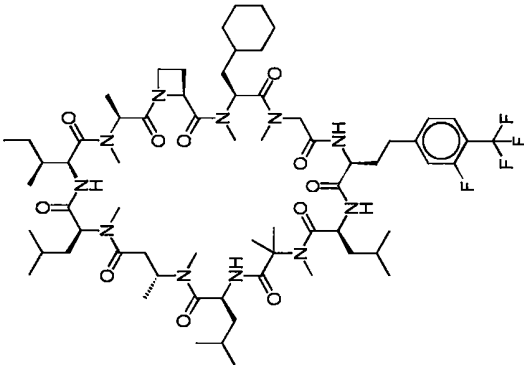
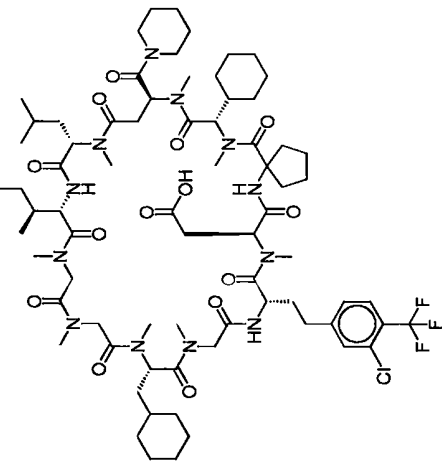
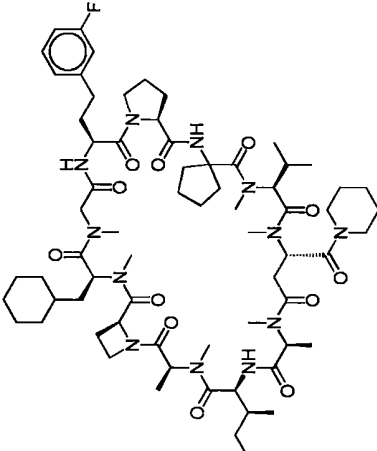
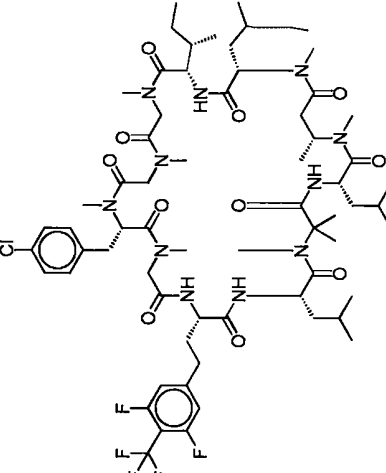
	
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[5346]

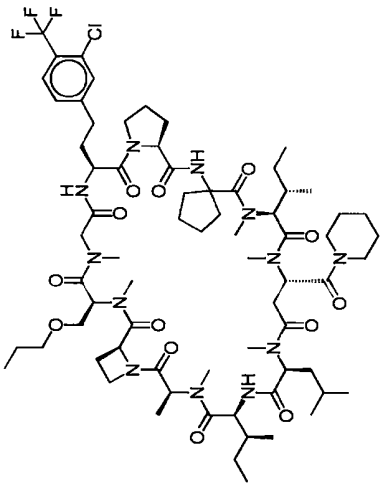
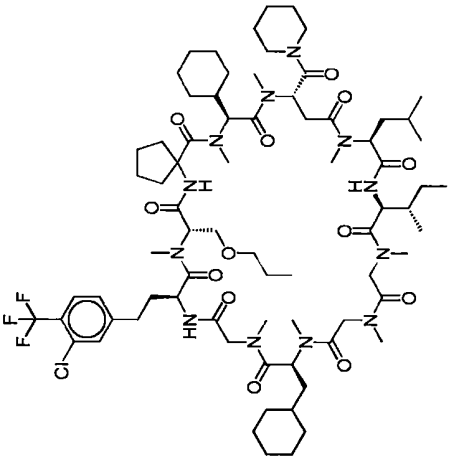
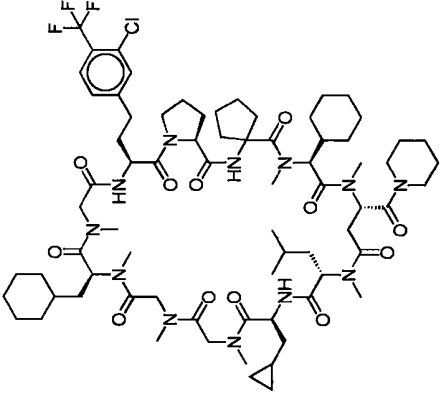
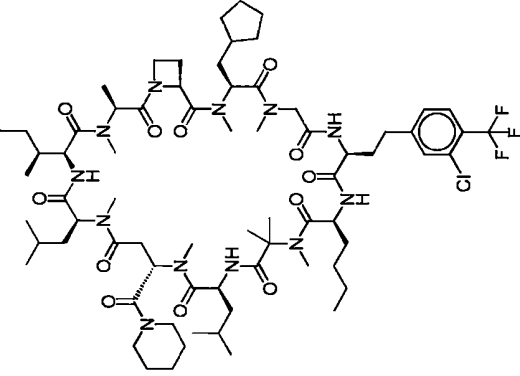
	
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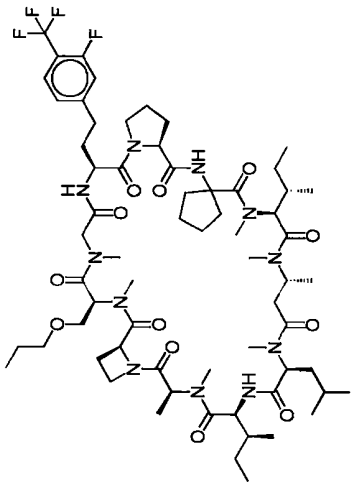
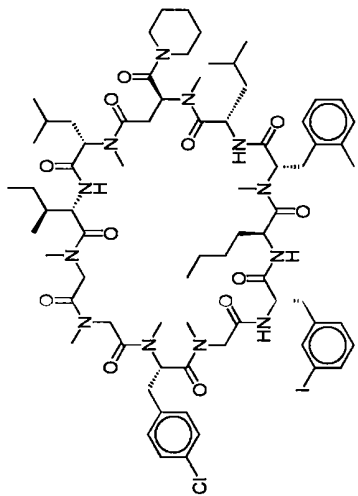
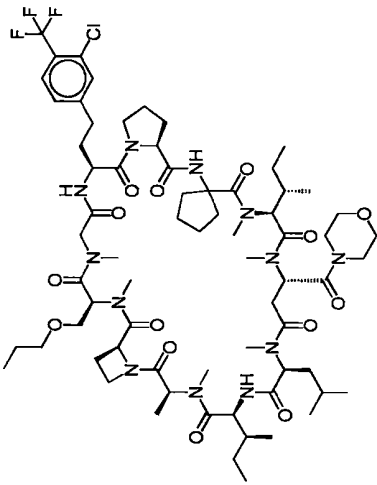
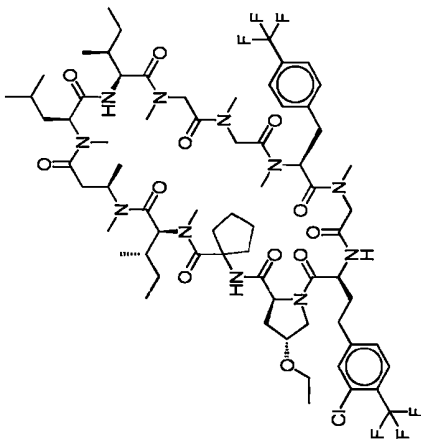
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[5348]

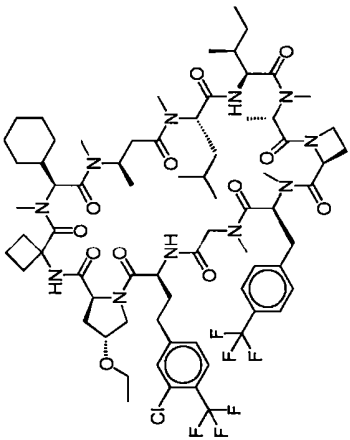
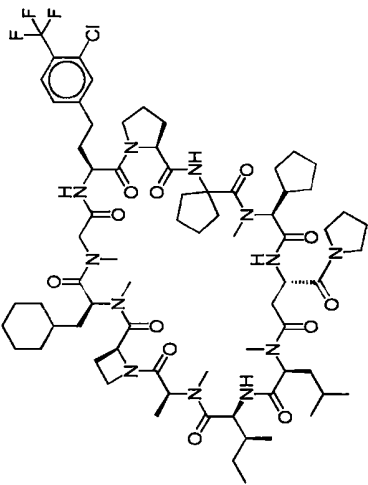
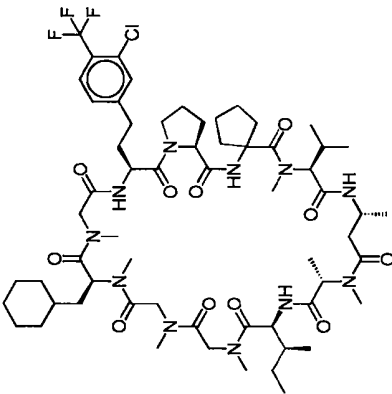
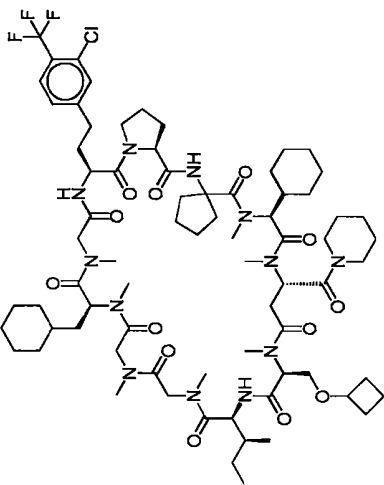
	
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[5349]

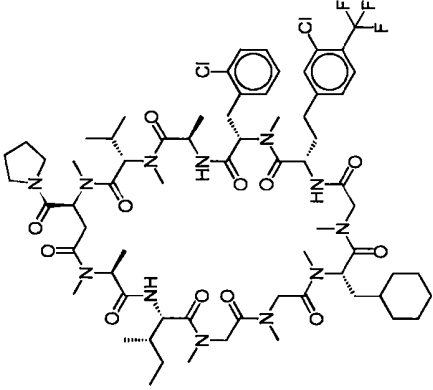
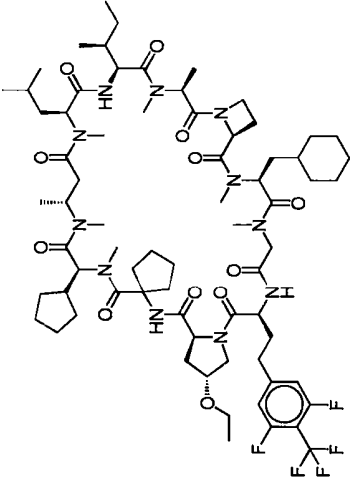
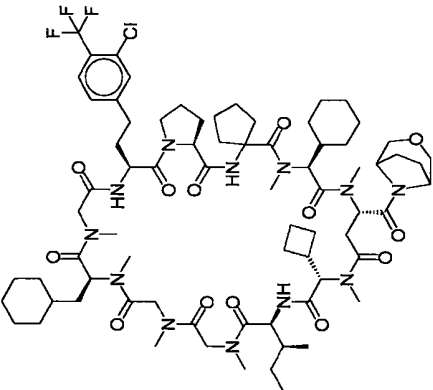
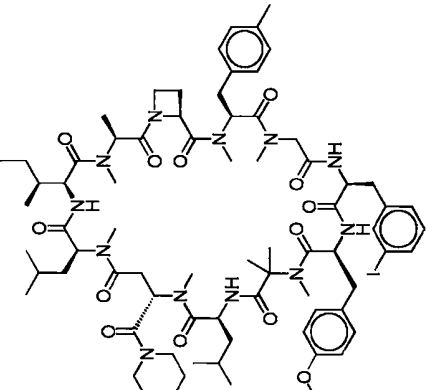
	
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[5350]

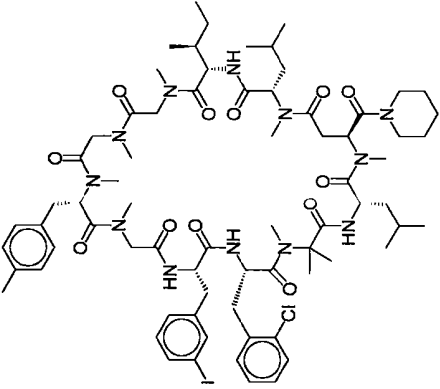
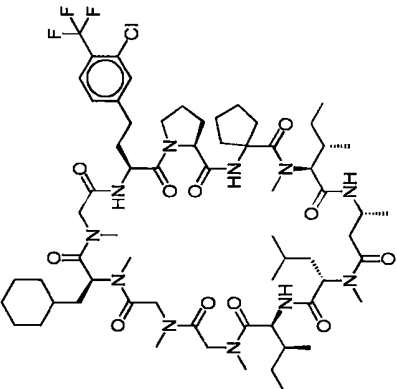
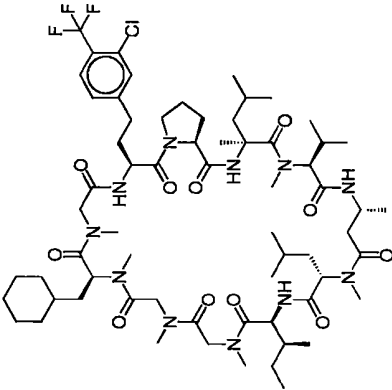
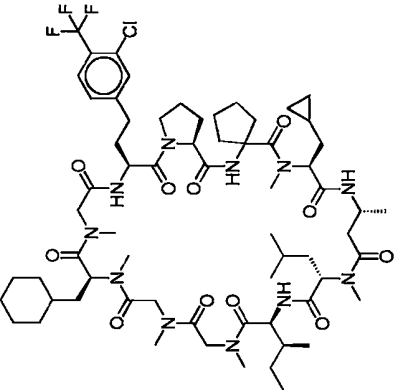
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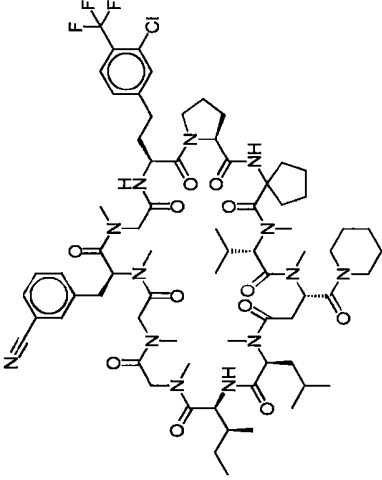
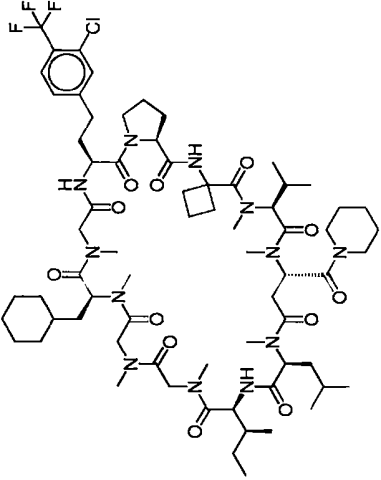
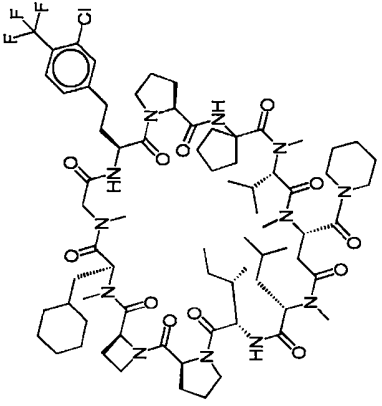
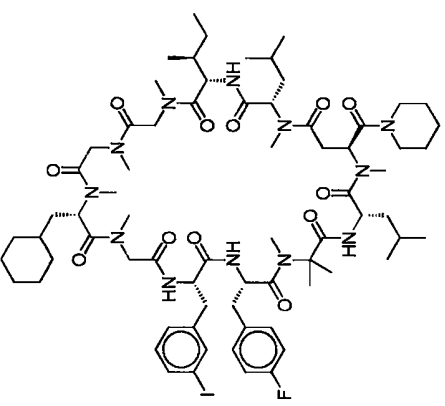
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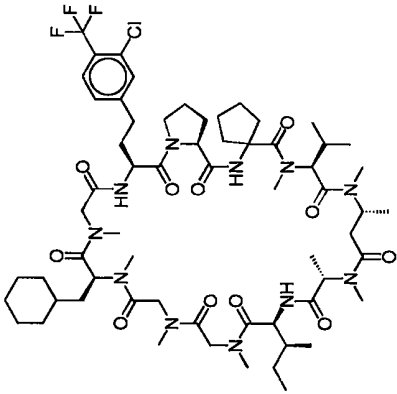
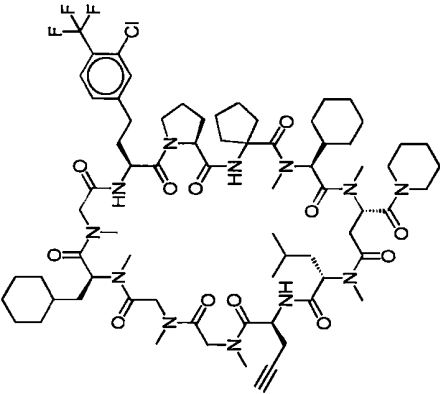
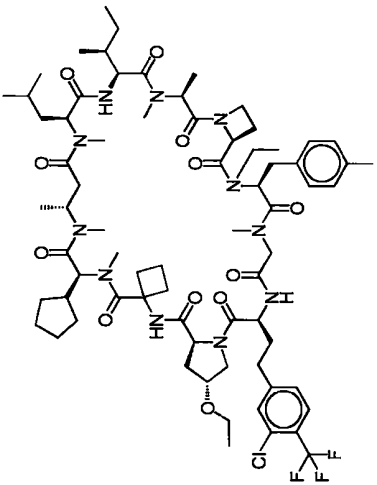
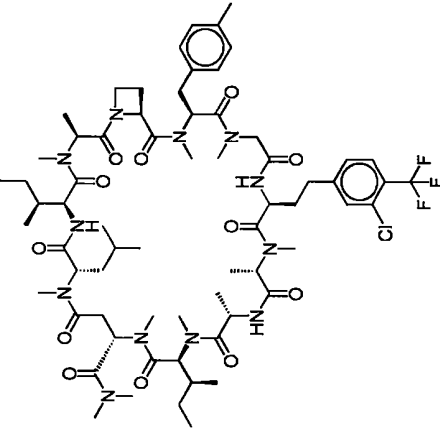
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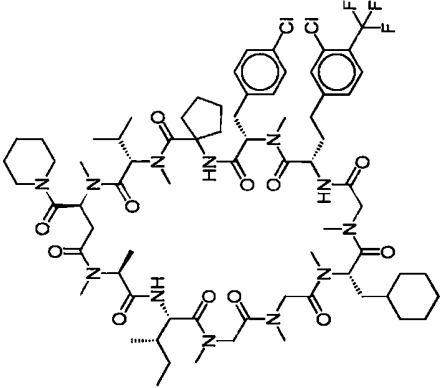
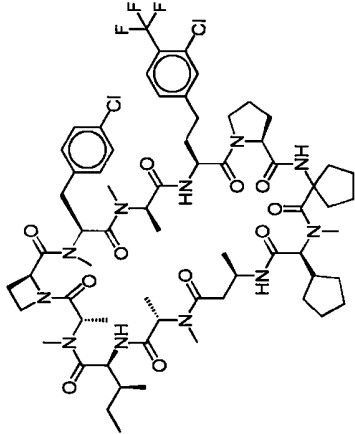
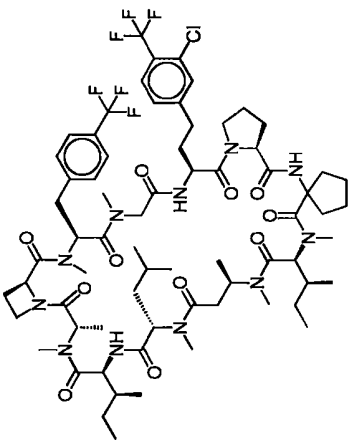
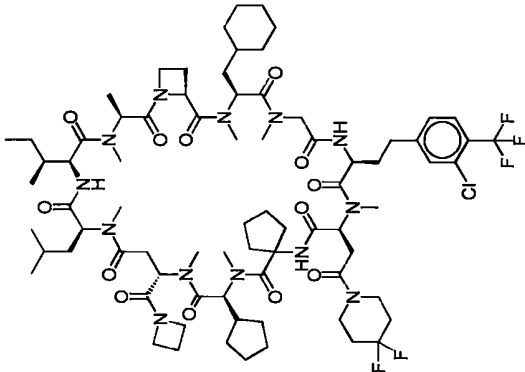
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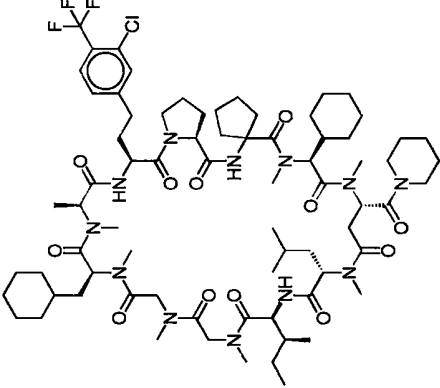
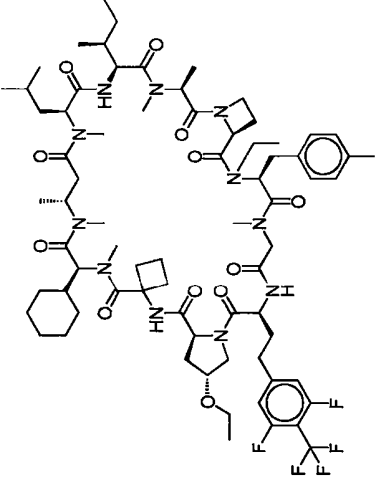
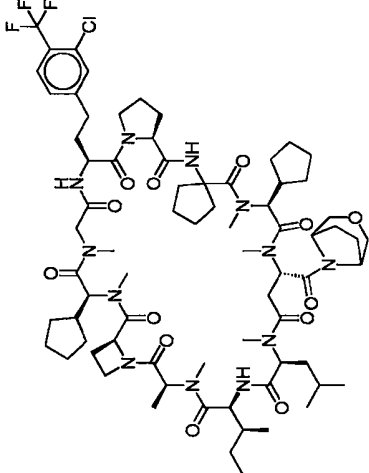
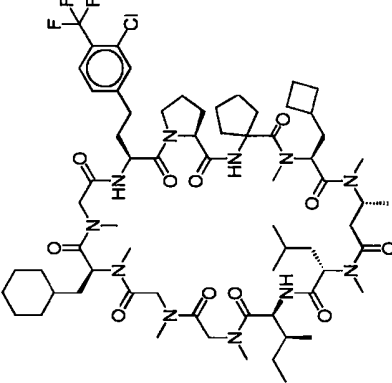
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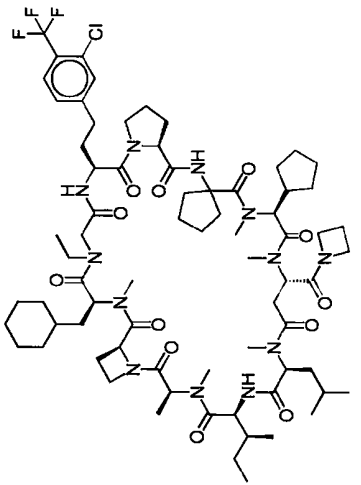
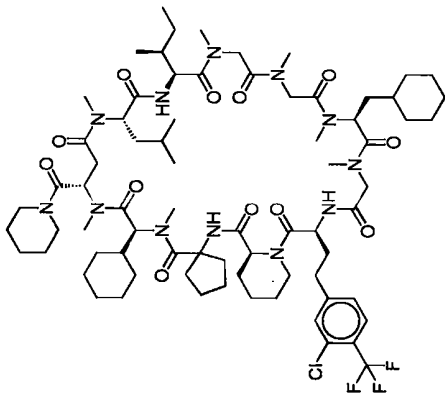
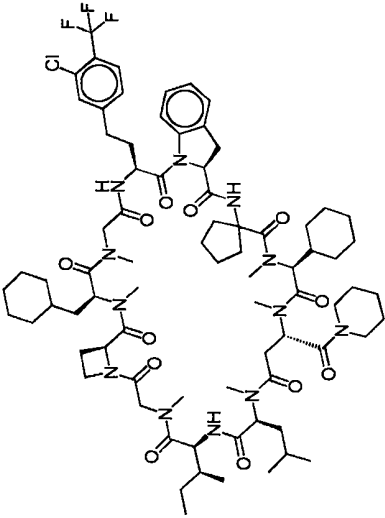
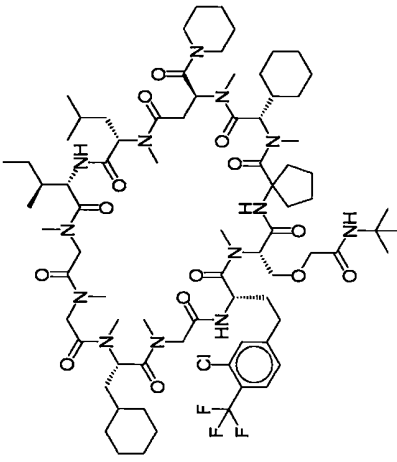
	
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[5356]

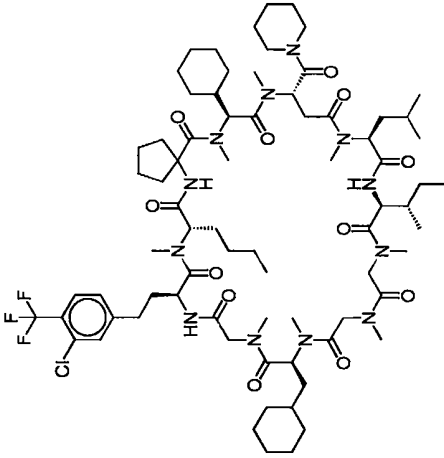
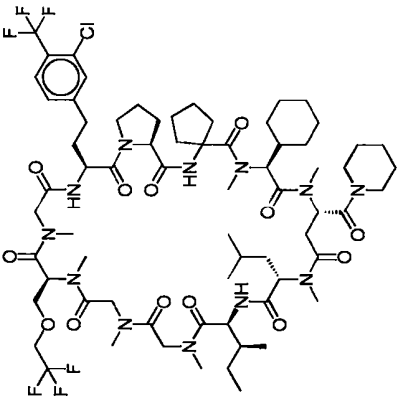
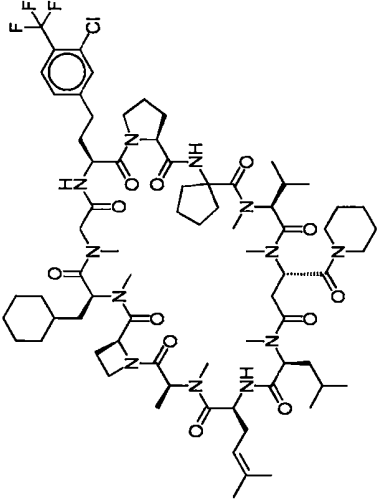
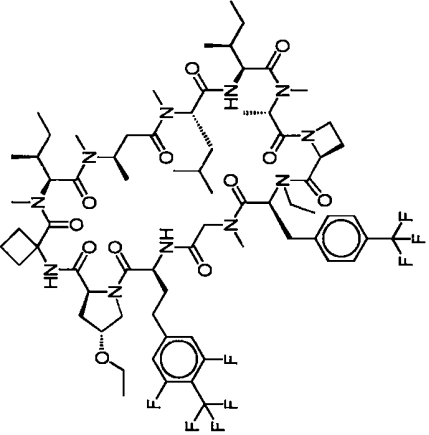
	
718	720
	
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[5357]

	
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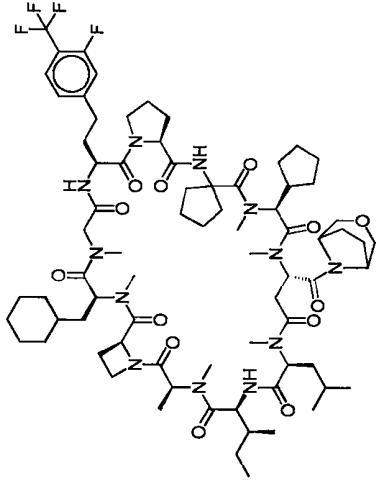
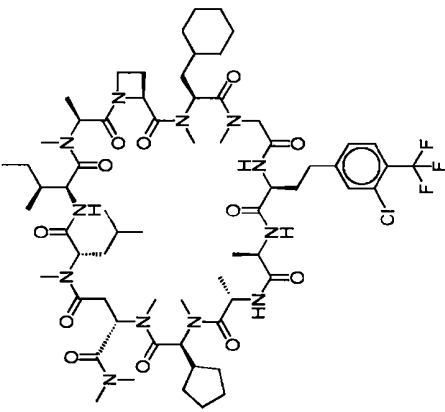
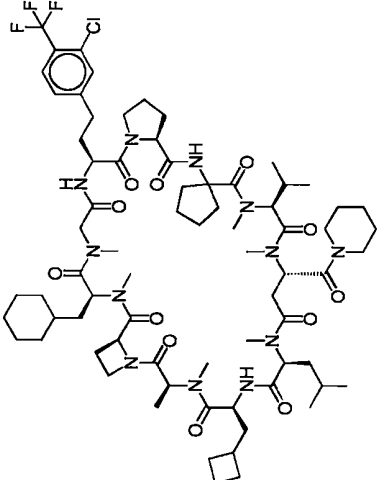
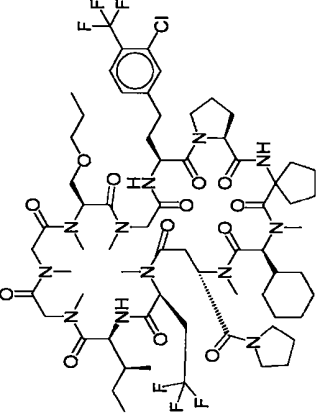
	
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[5358]

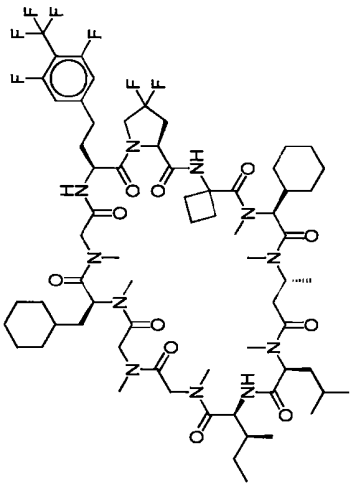
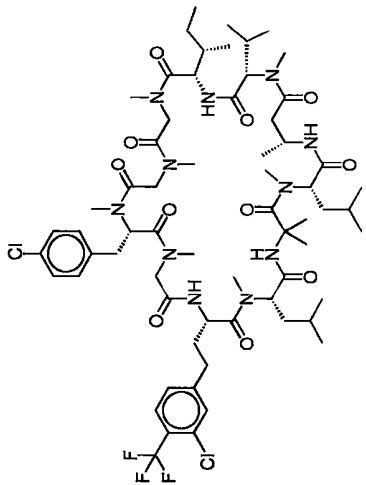
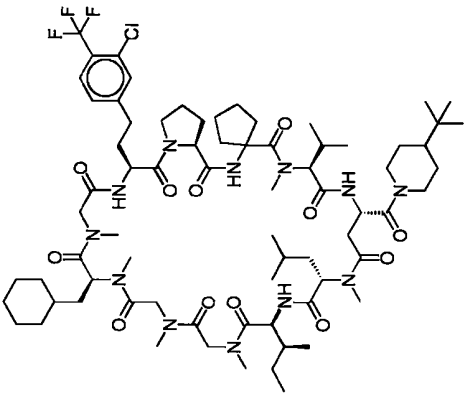
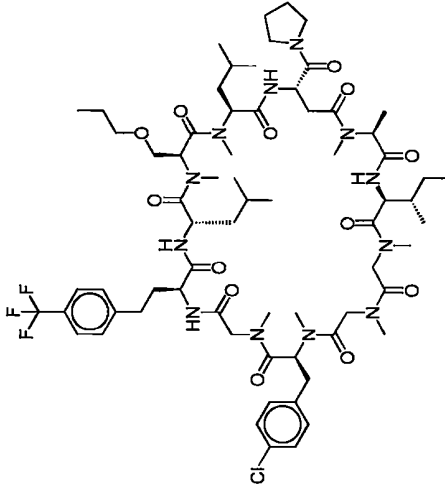
	
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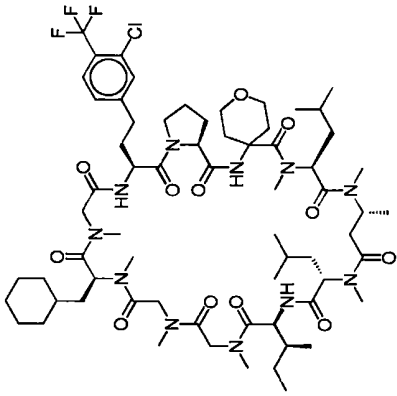
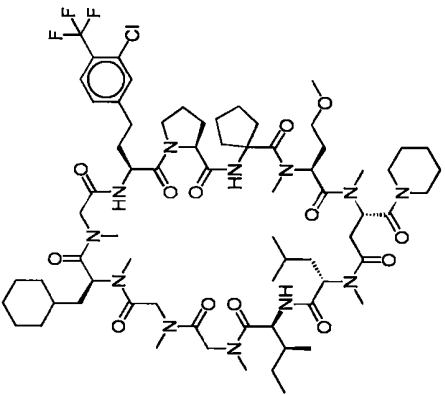
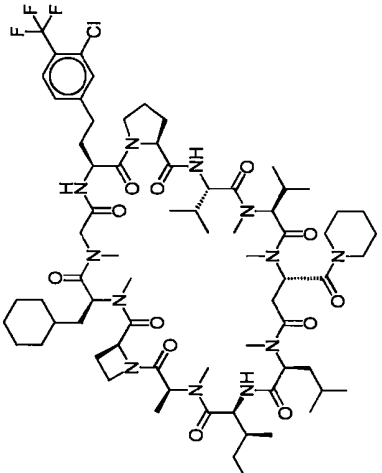
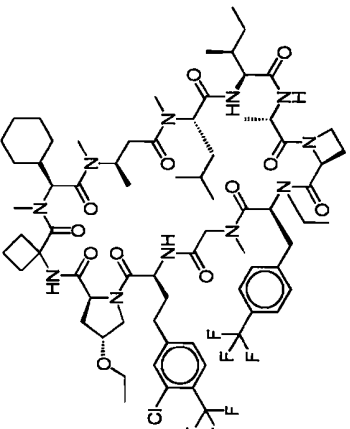
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[5360]

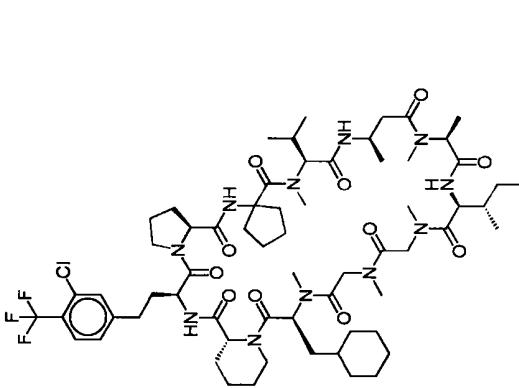
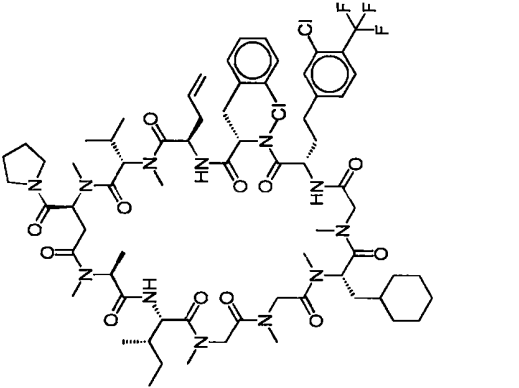
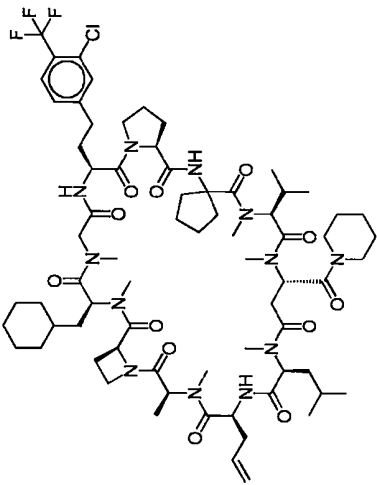
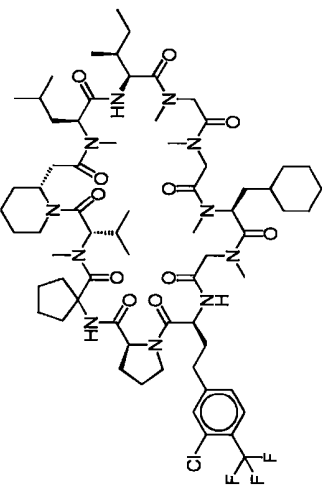
	
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[5361]

	
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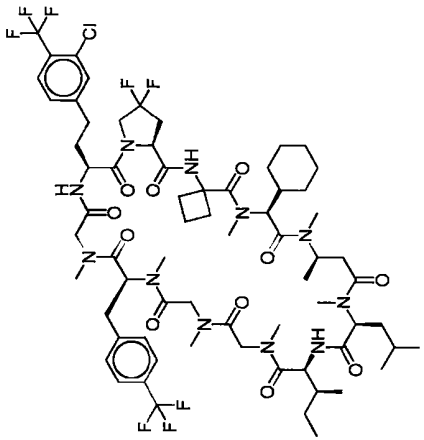
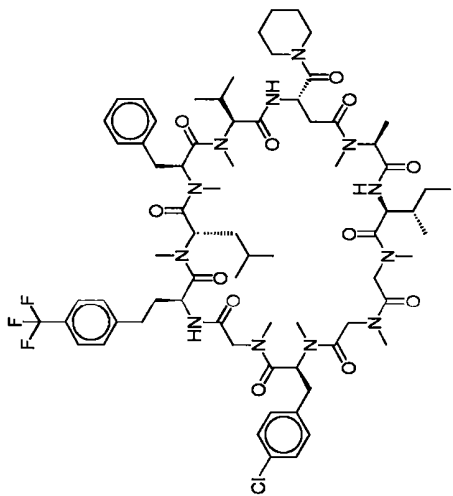
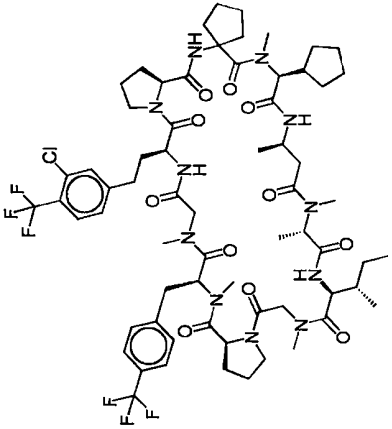
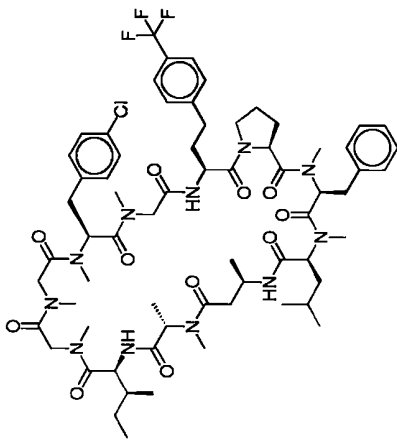
	
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[5362]

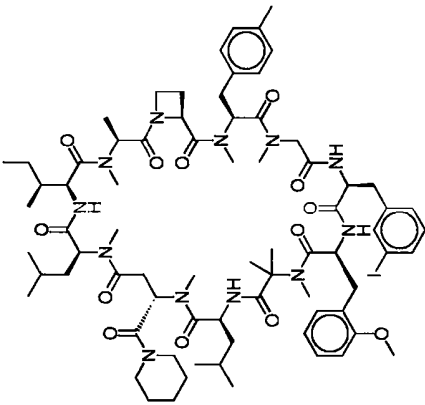
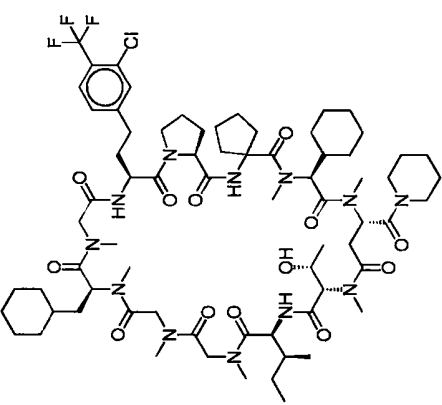
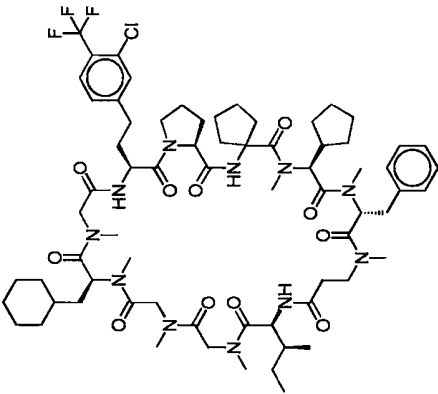
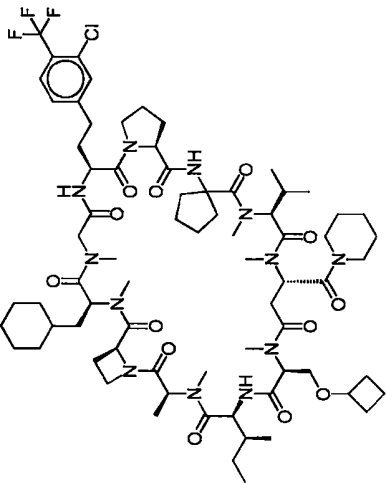
	
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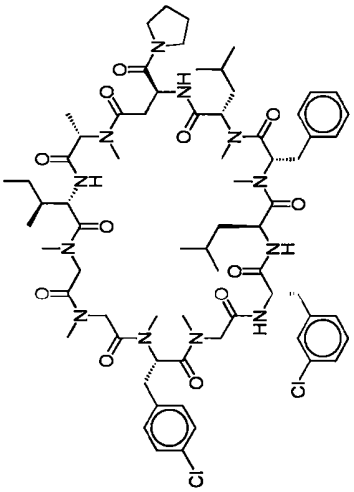
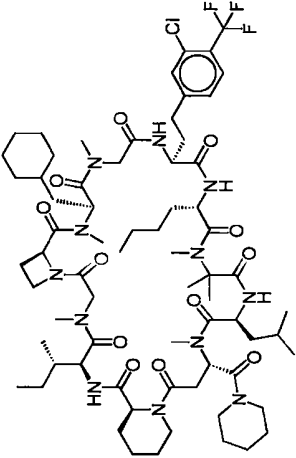
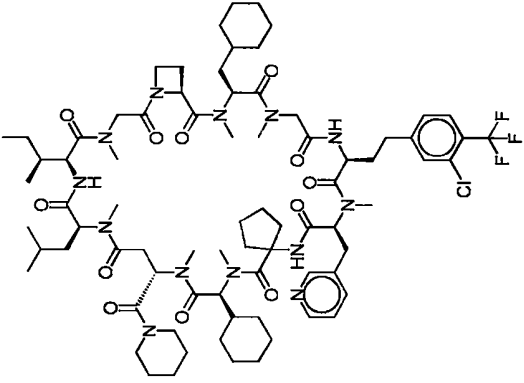
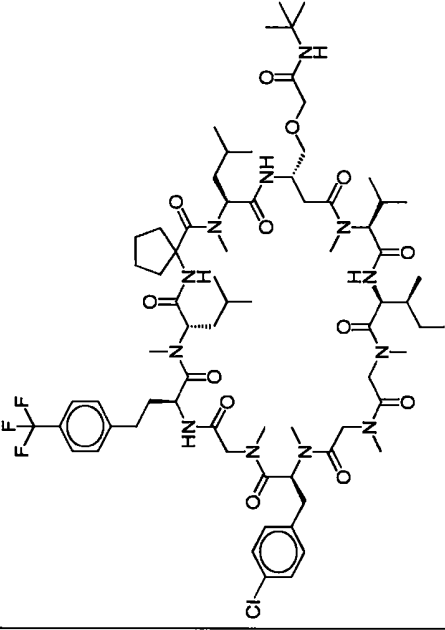
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[5364]

	
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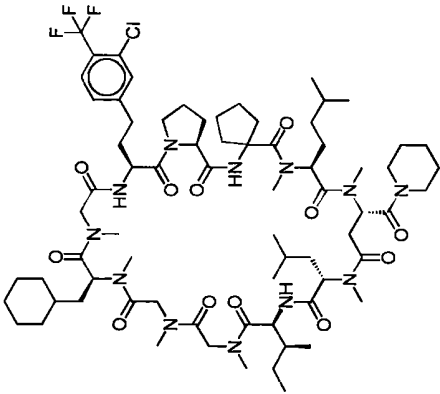
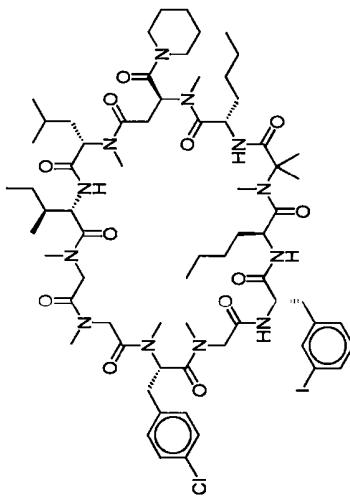
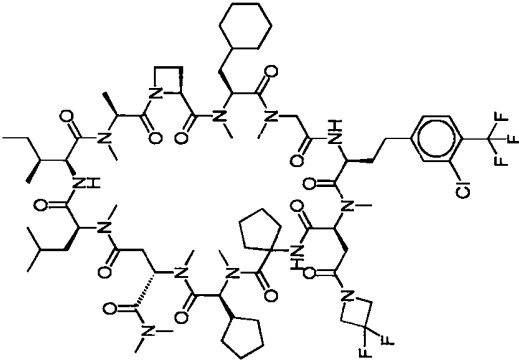
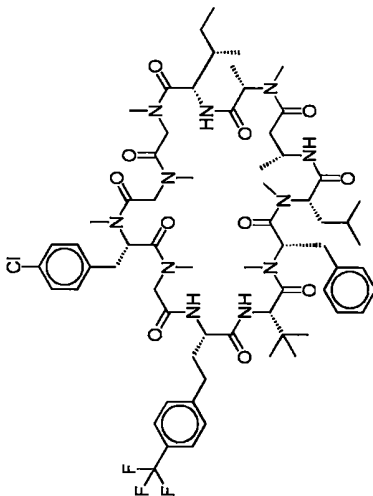
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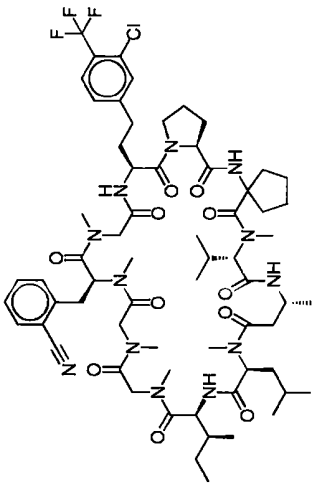
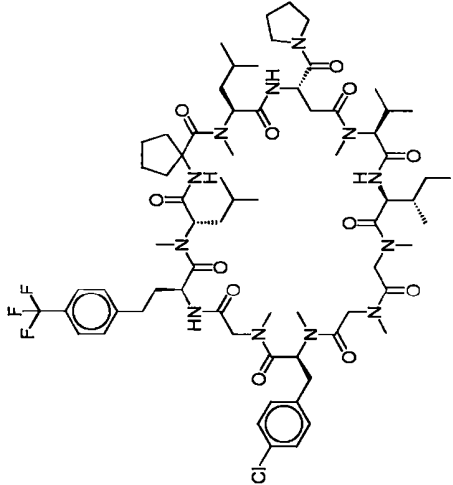
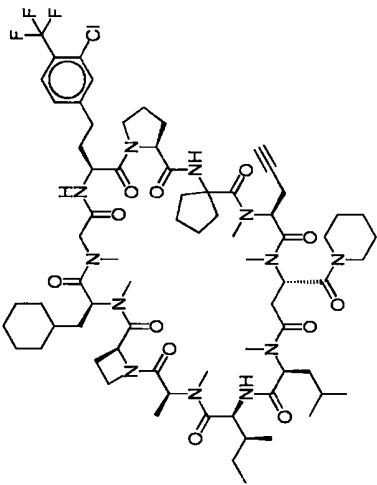
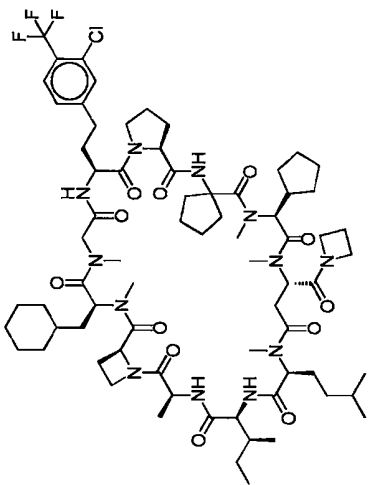
	
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[5366]

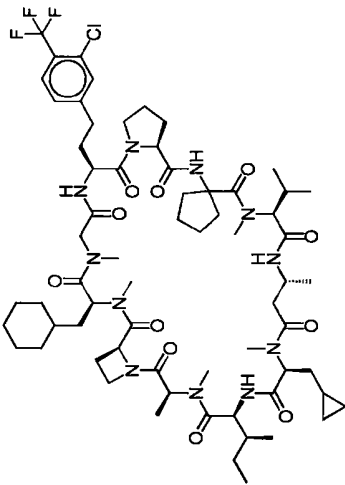
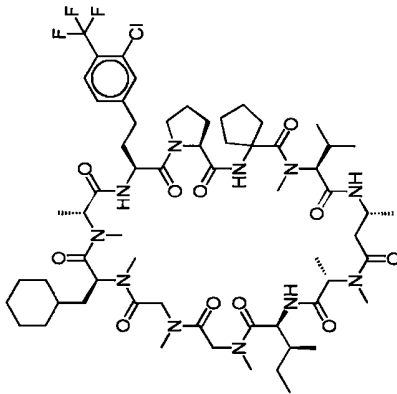
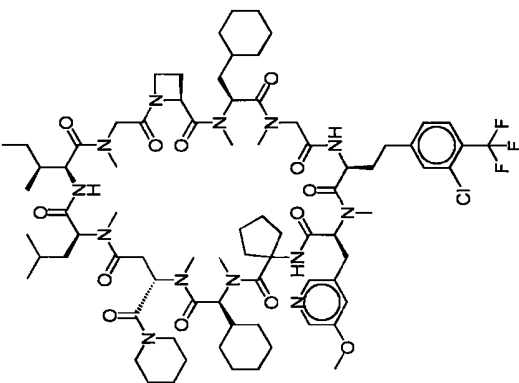
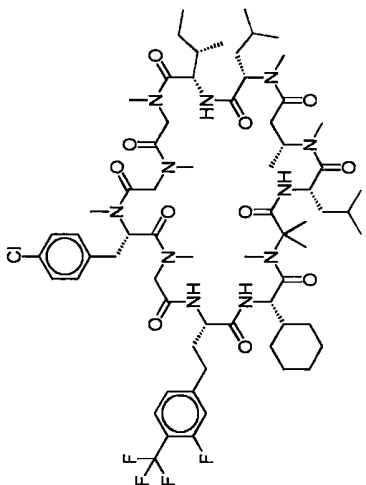
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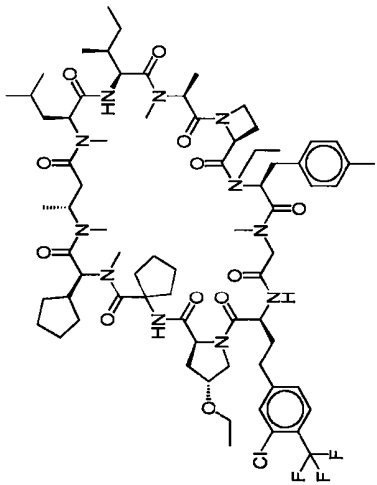
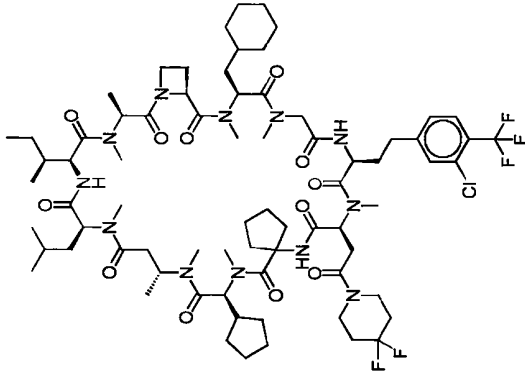
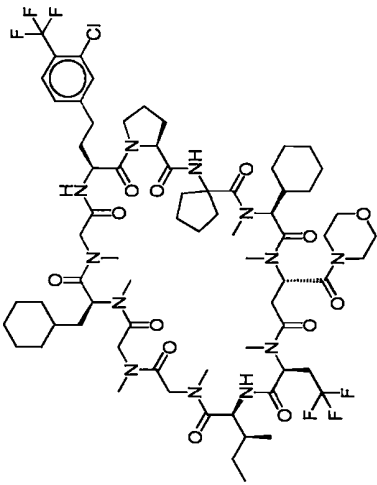
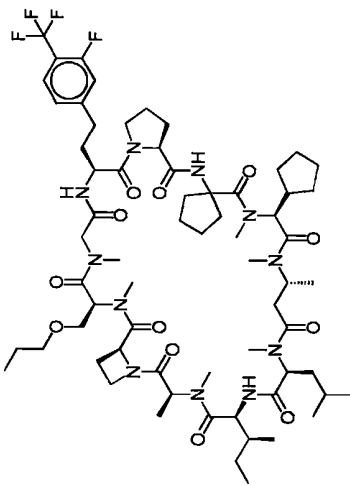
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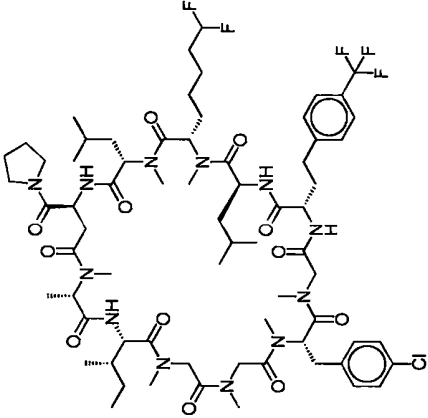
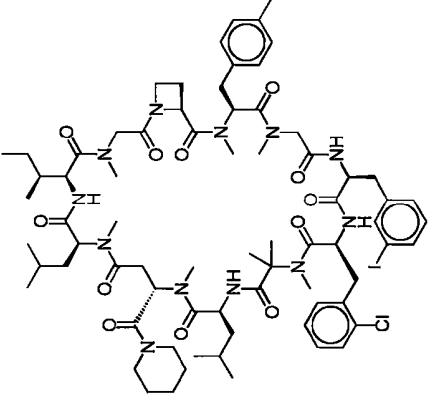
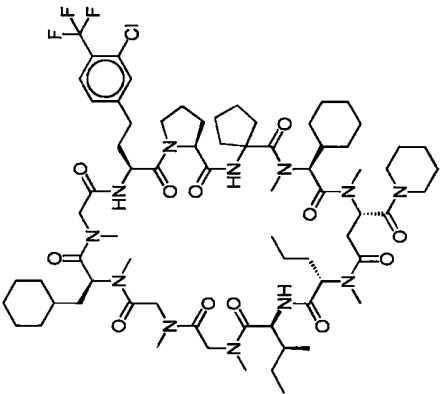
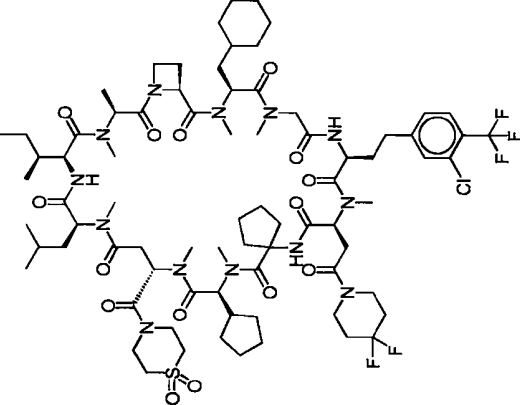
[5369]

	
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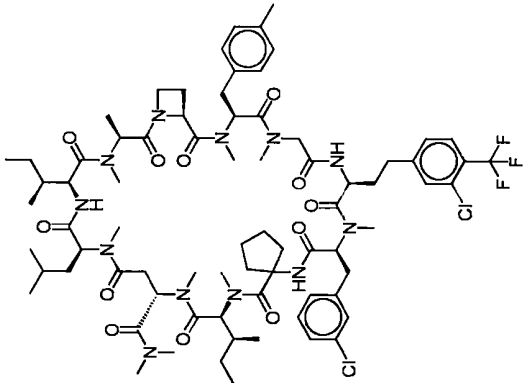
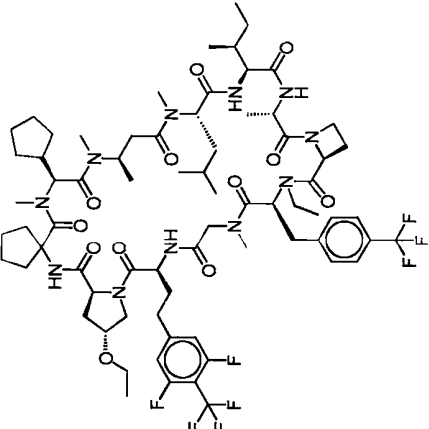
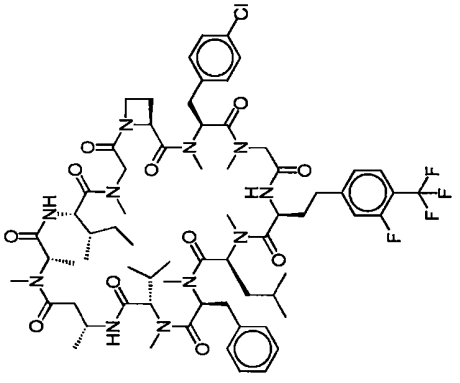
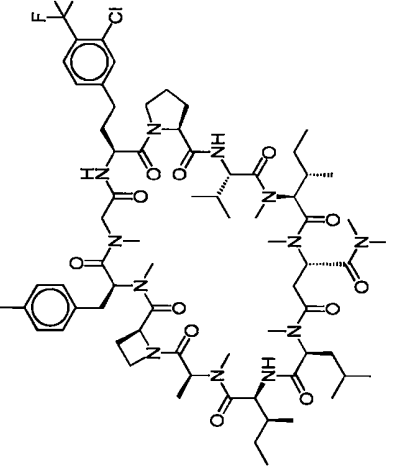
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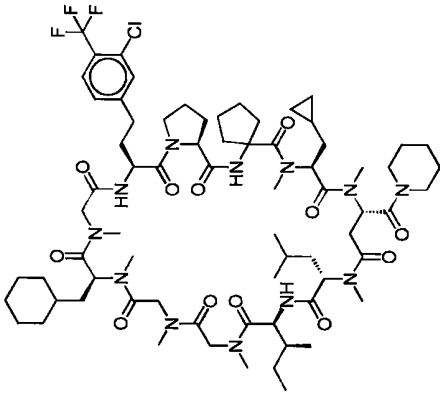
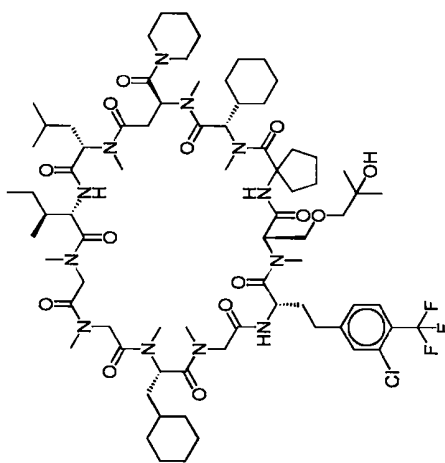
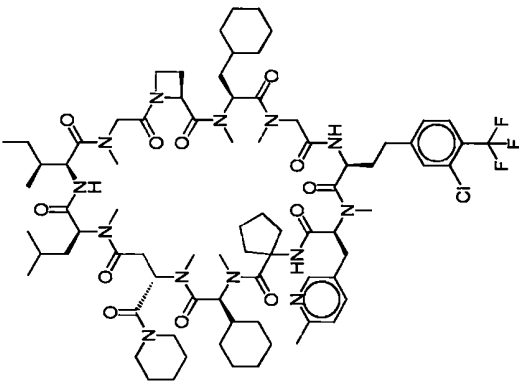
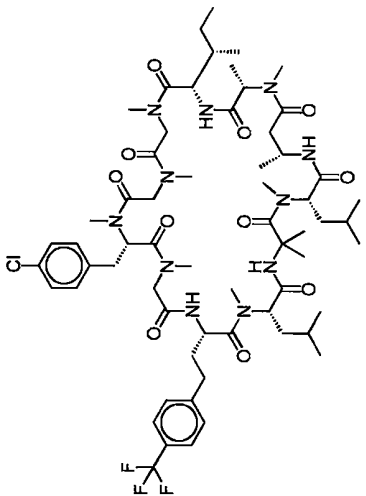
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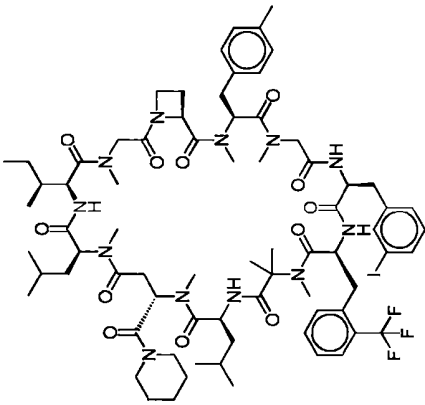
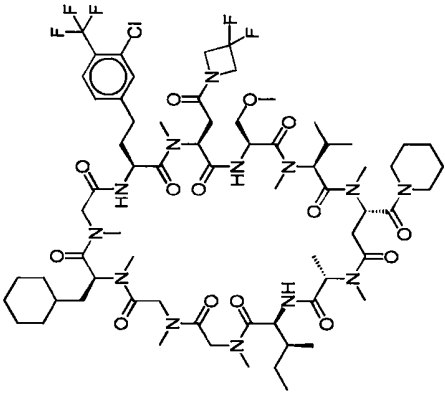
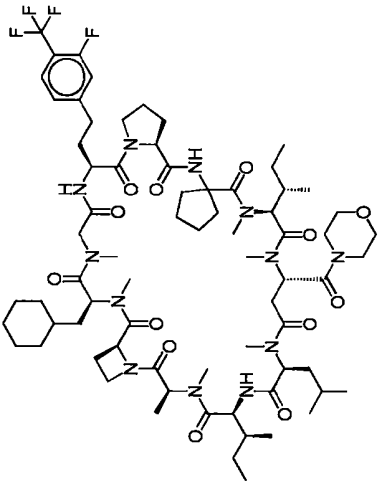
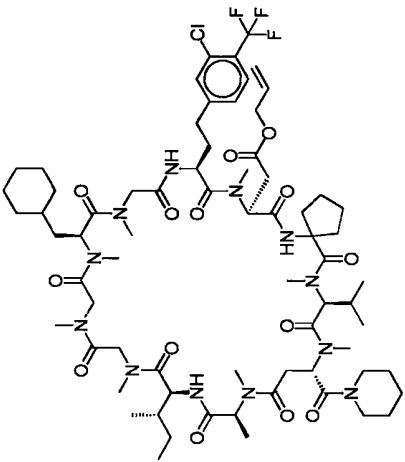
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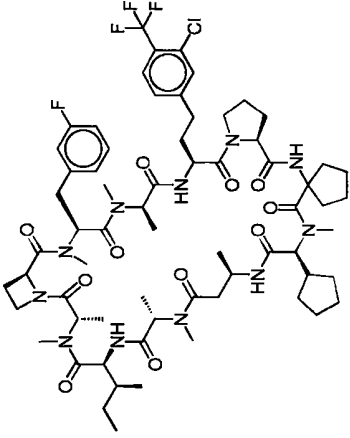
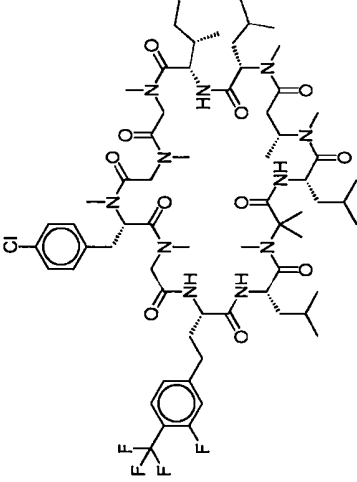
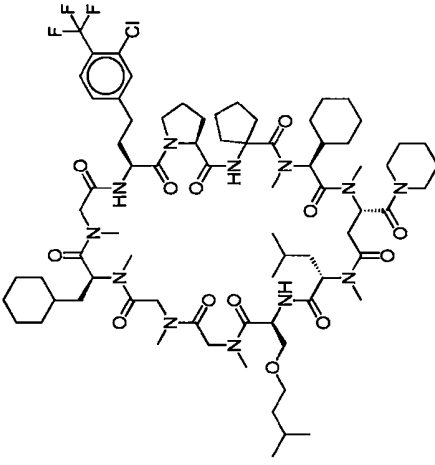
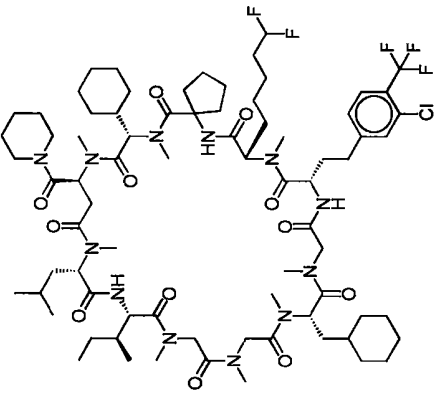
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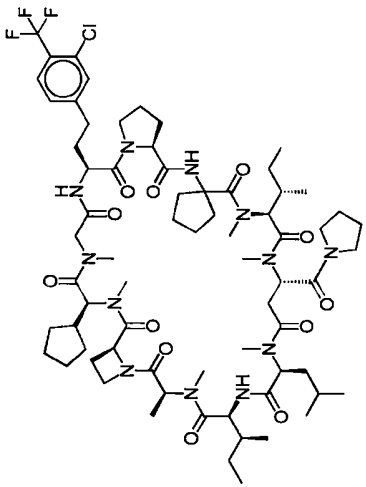
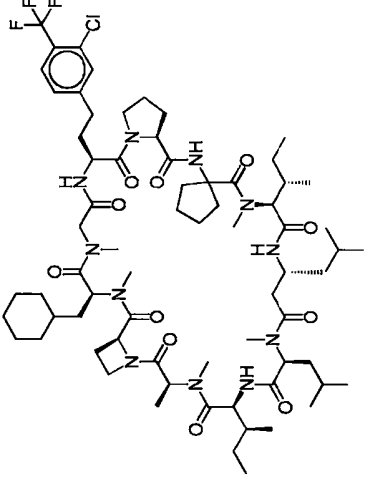
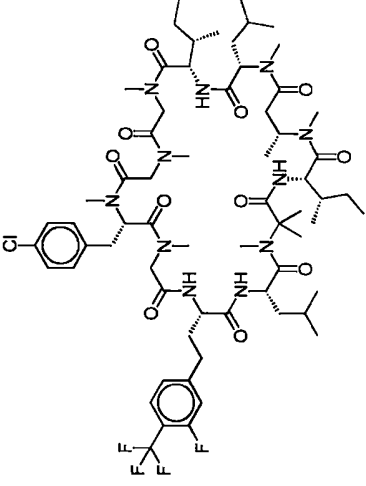
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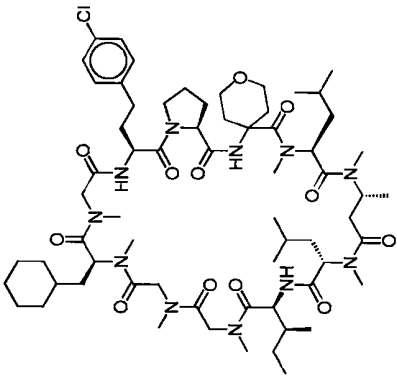
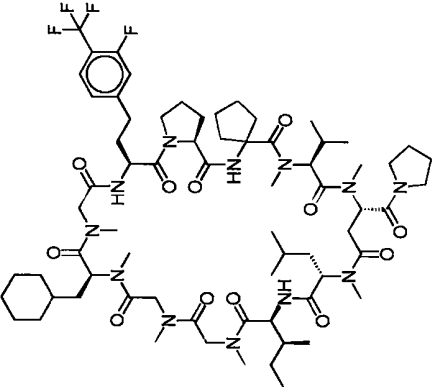
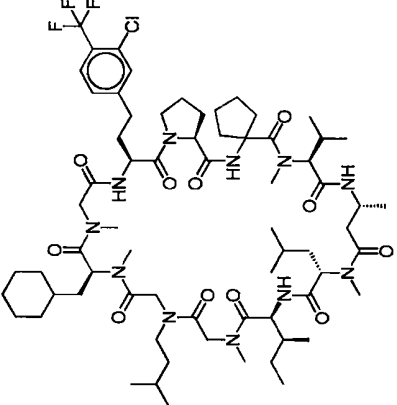
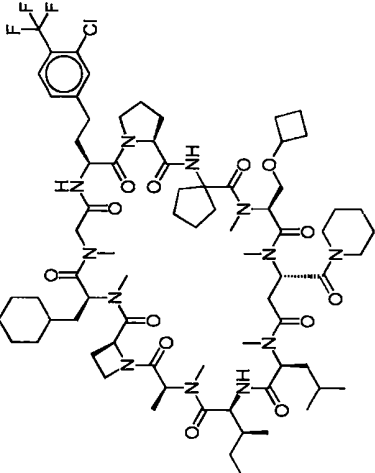
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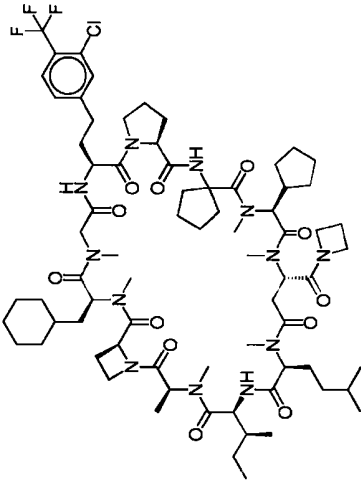
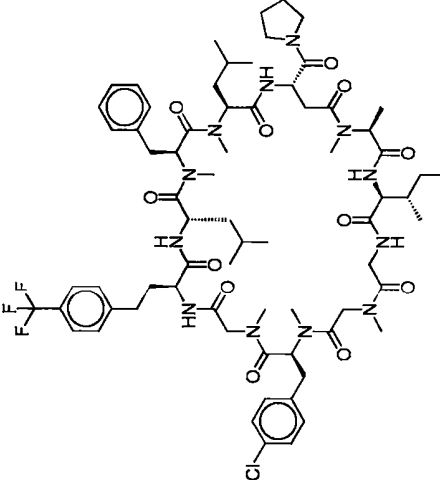
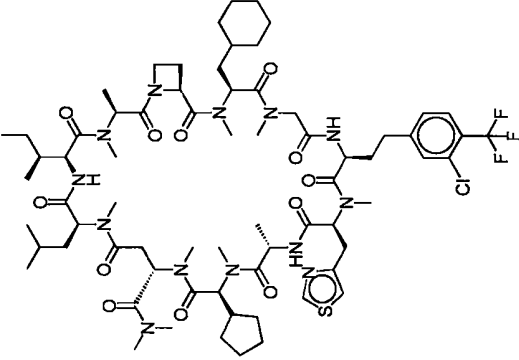
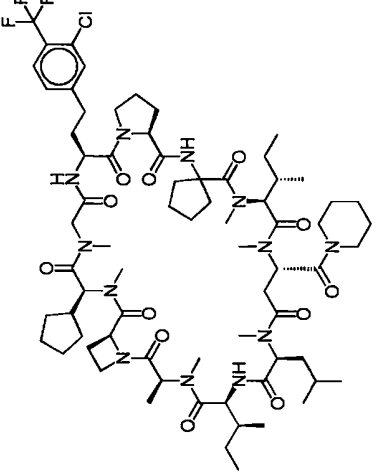
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798	800

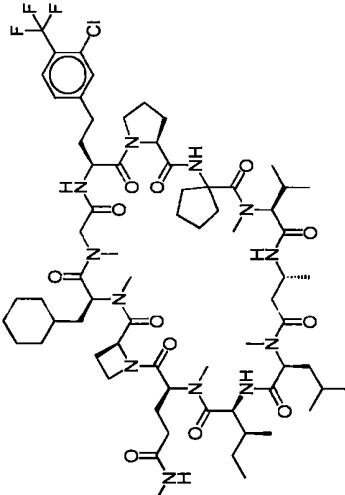
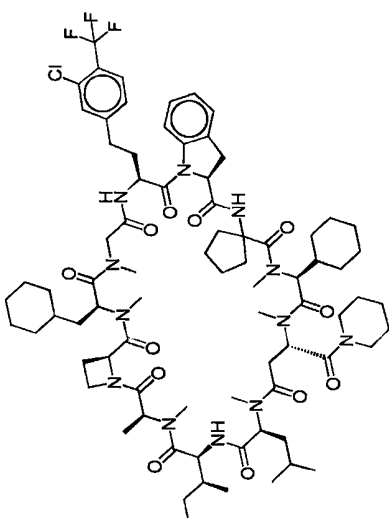
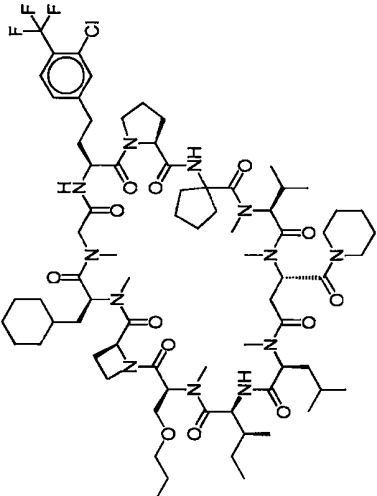
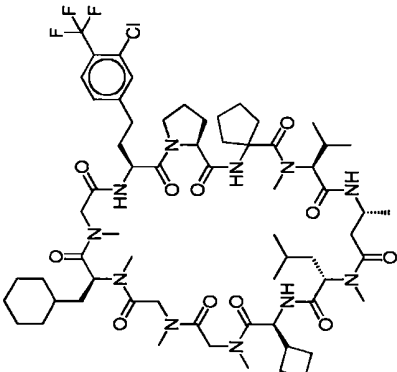
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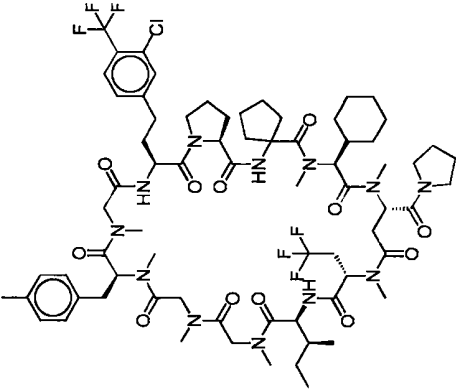
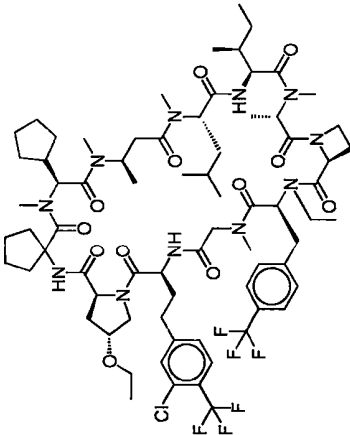
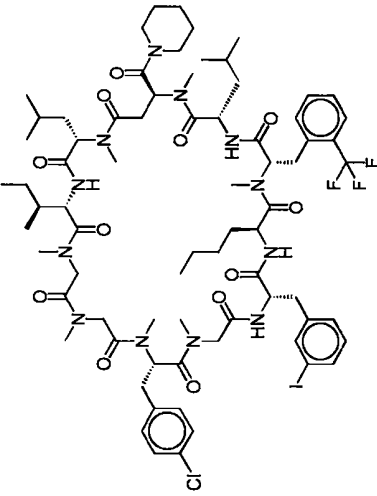
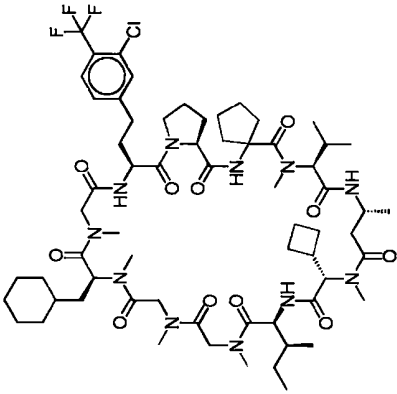
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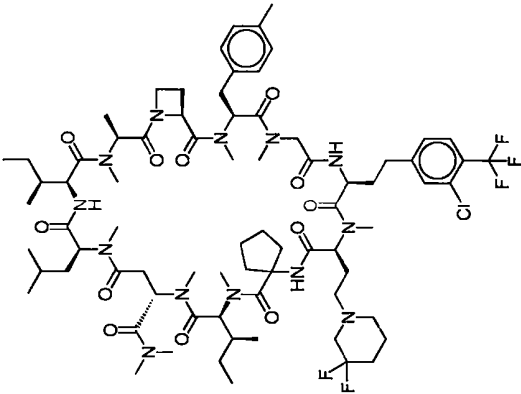
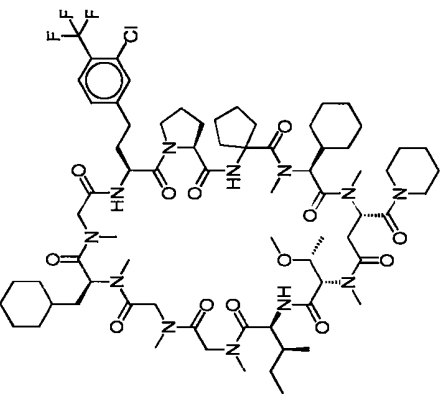
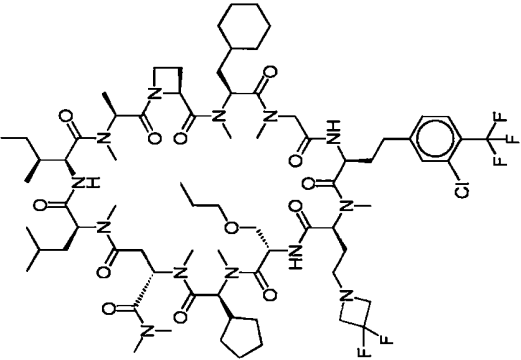
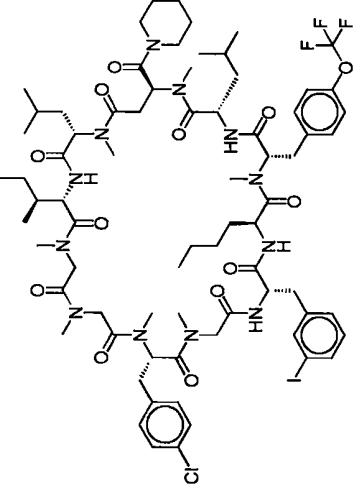
	
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[5379]

	
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809	811

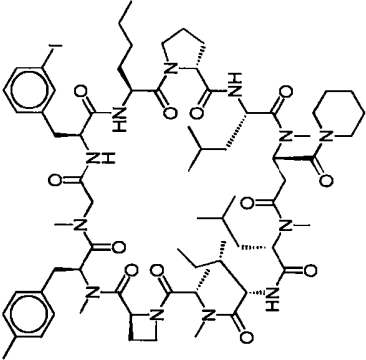
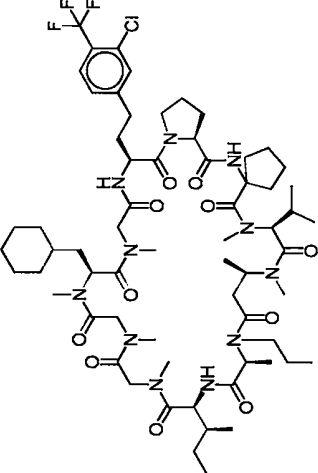
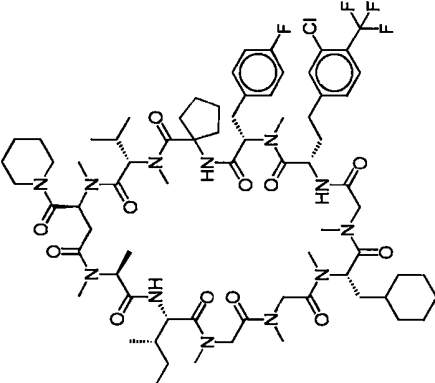
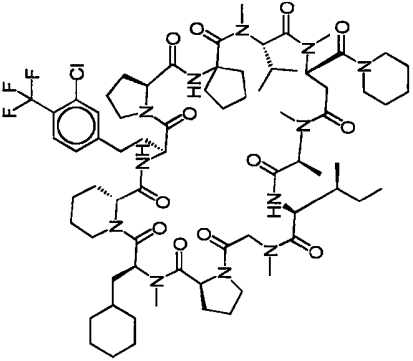
[5380]

	
814	816
	
813	815

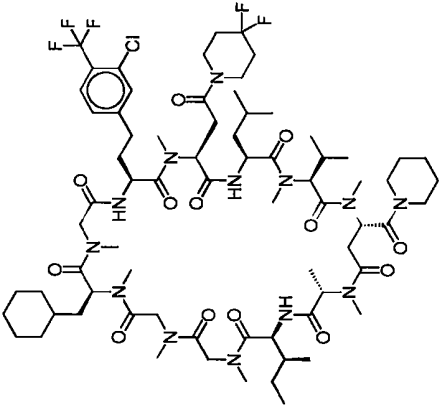
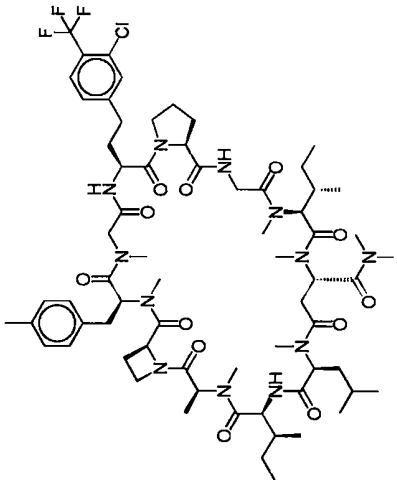
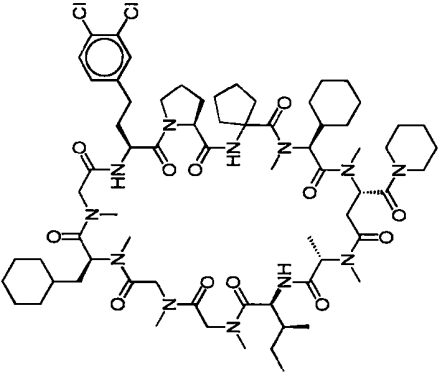
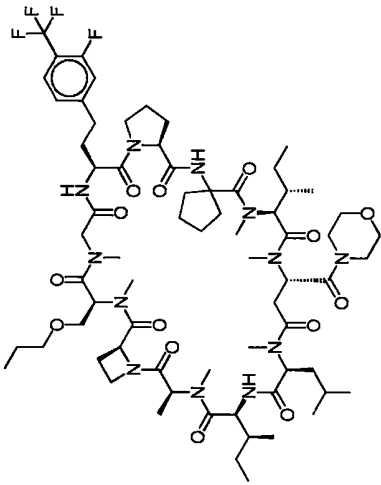
	
818	820
	
817	819

[5381]

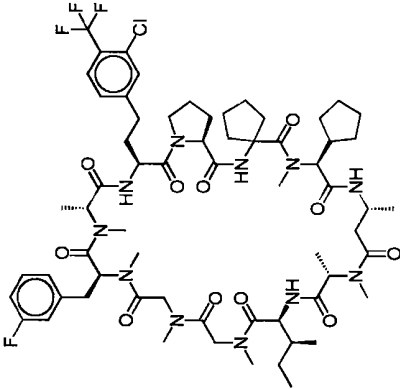
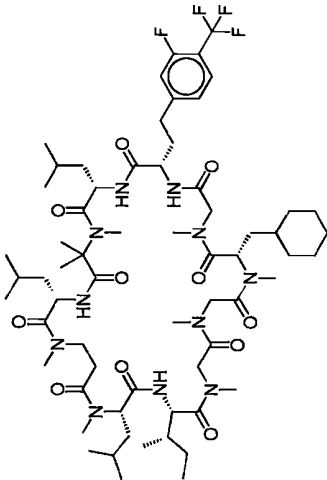
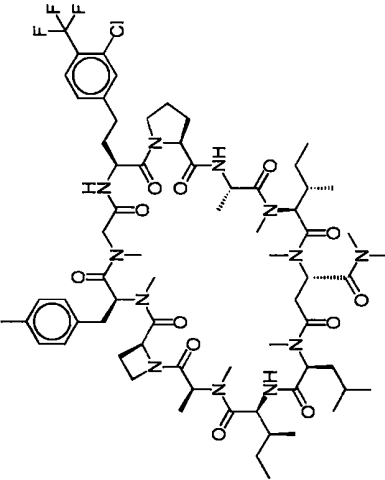
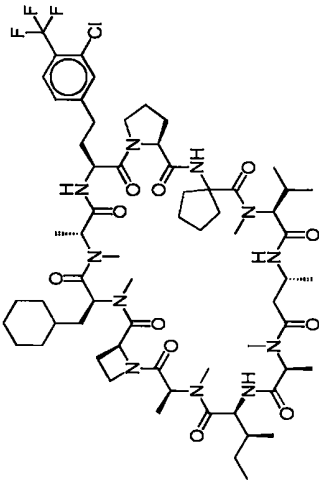
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822	824
	
821	823

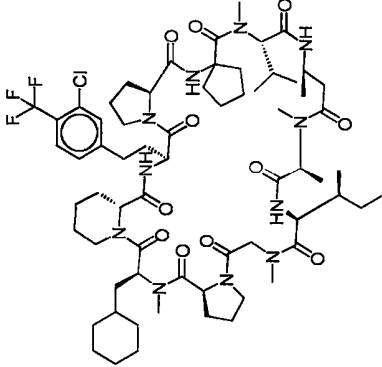
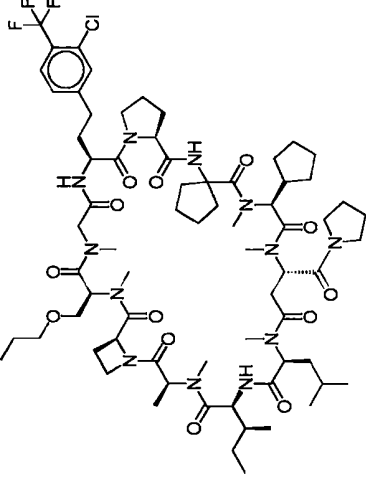
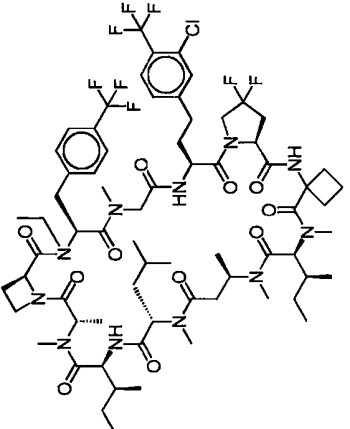
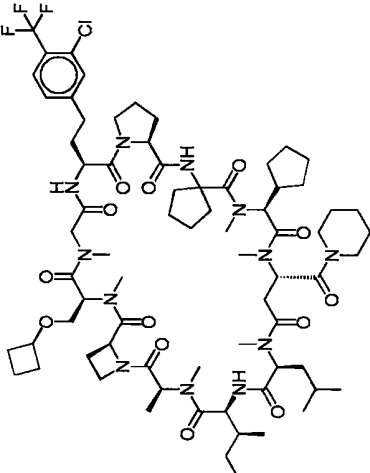
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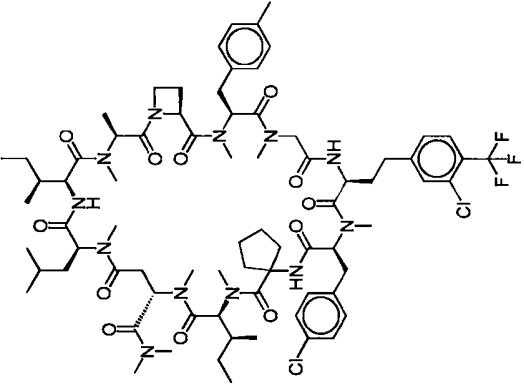
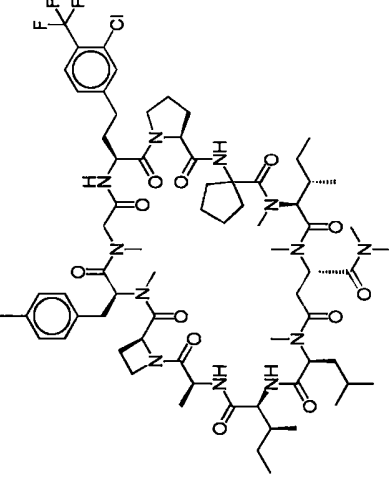
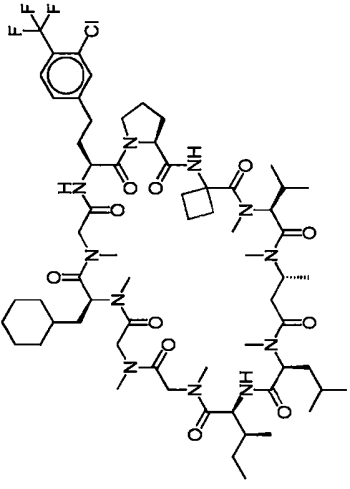
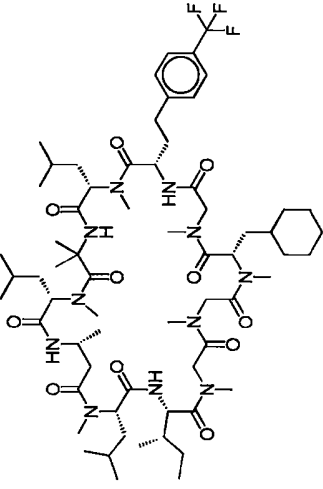
	
826	828
	
825	827

[5384]

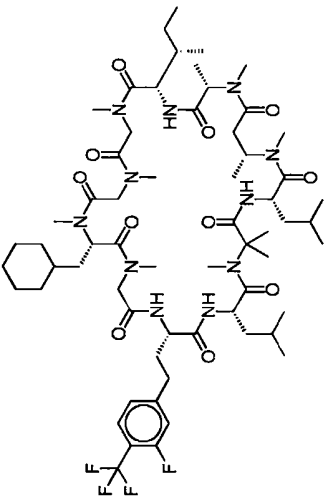
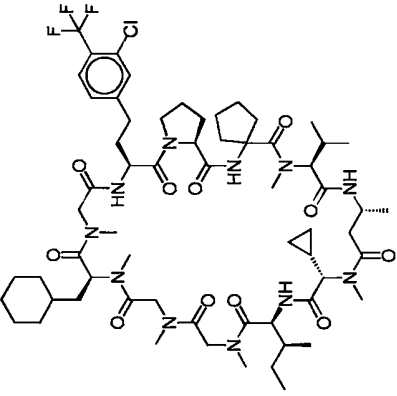
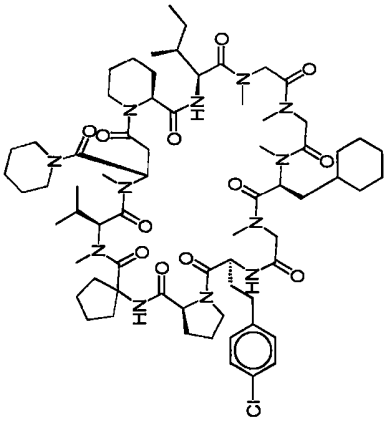
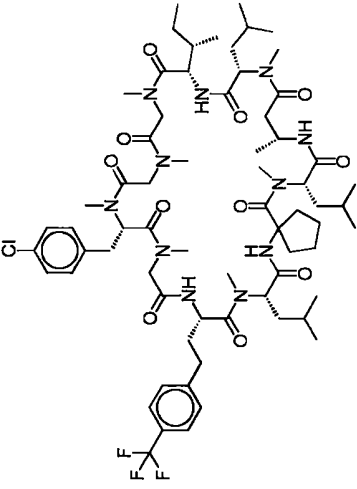
	
830	832
	
829	831

[5385]

	
834	836
	
833	835

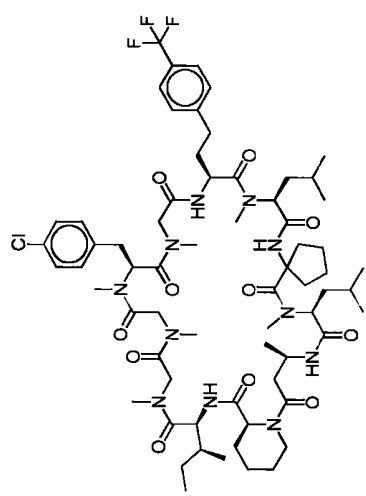
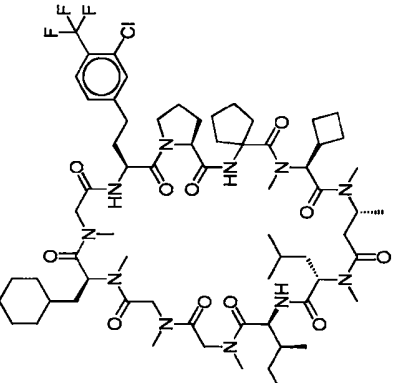
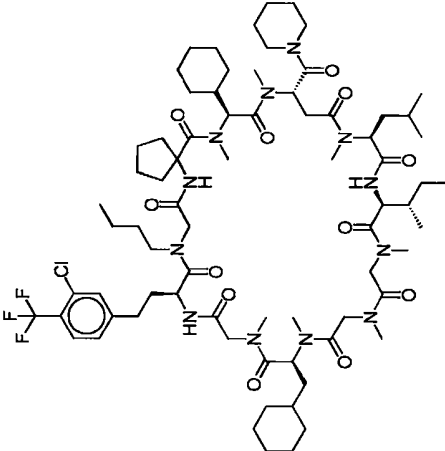
	
838	840
	
837	839

[5386]

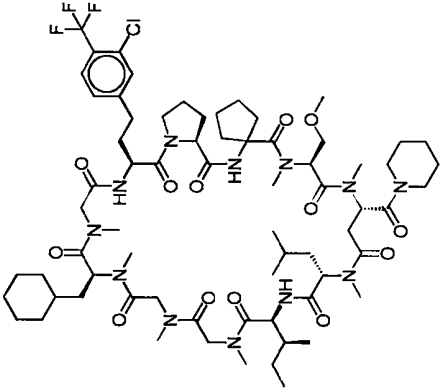
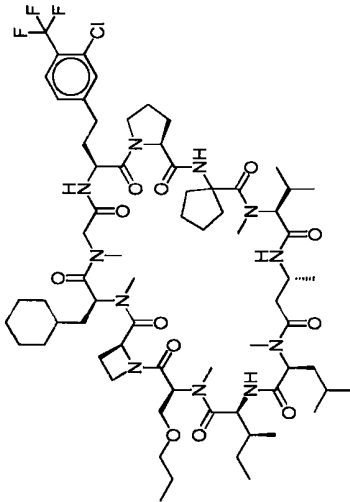
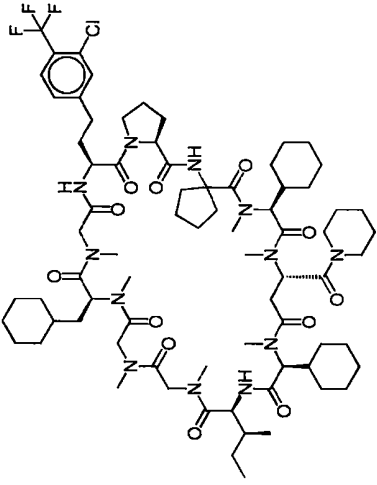
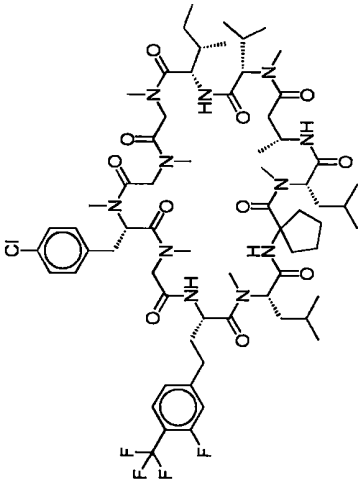
	
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841	843

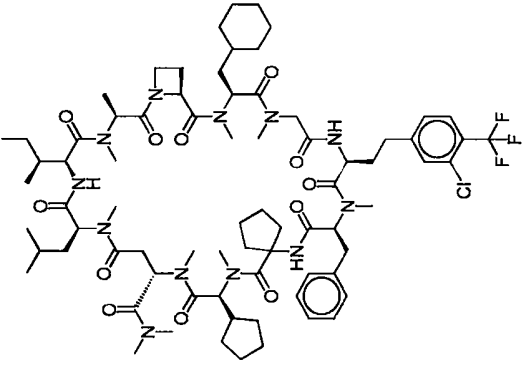
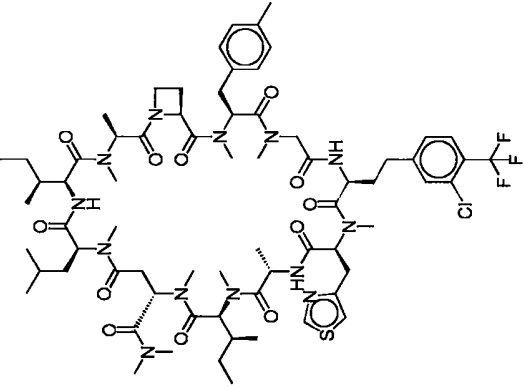
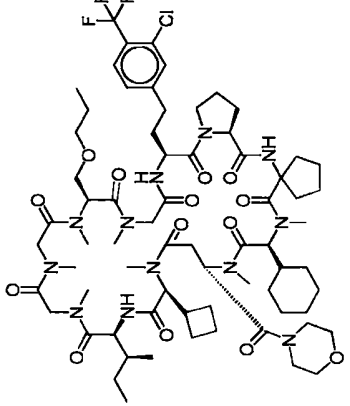
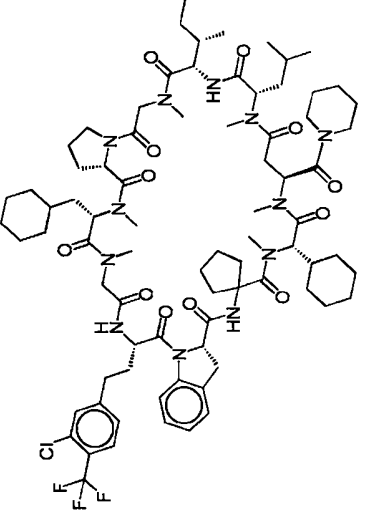
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[5388]

	
847	
	
845	848

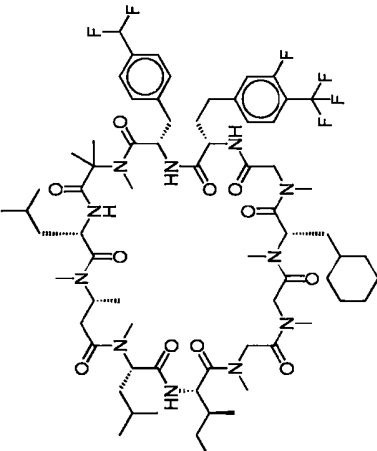
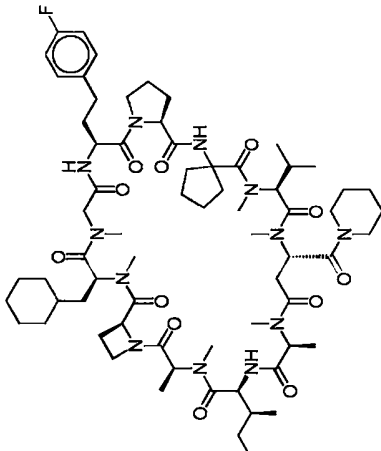
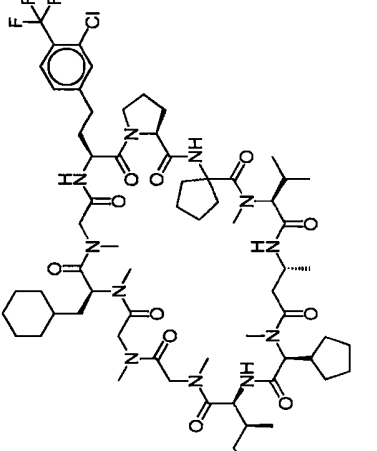
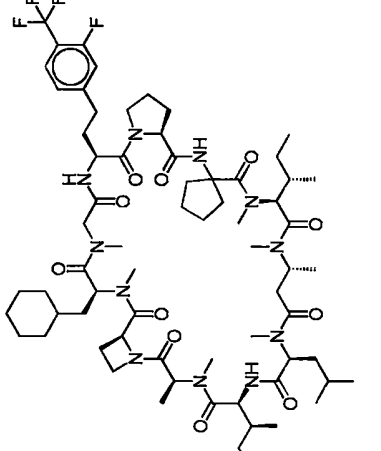
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850	852
	
849	851

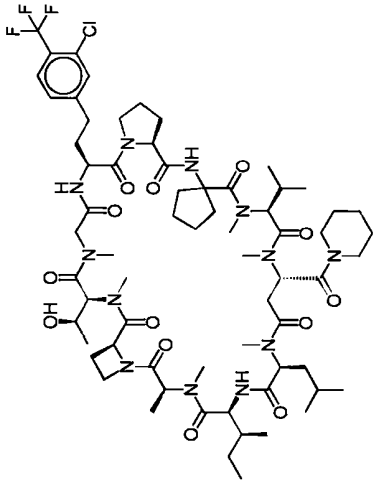
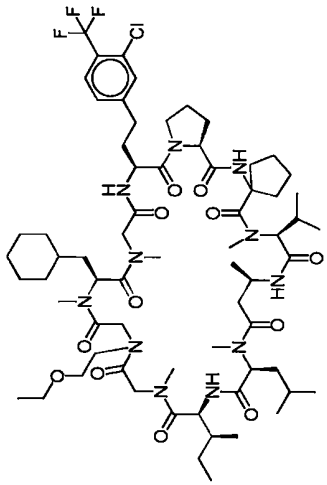
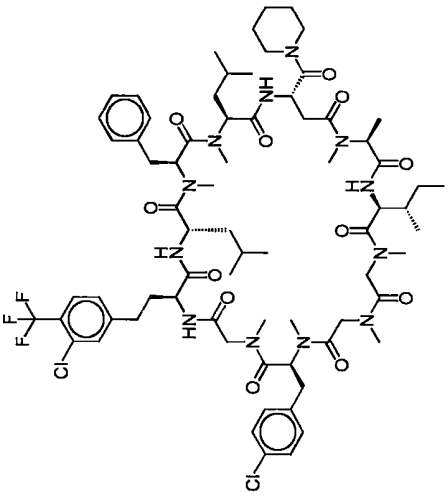
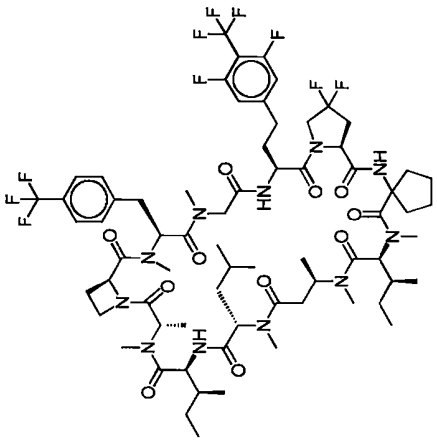
	
854	856
	
853	855

[5390]

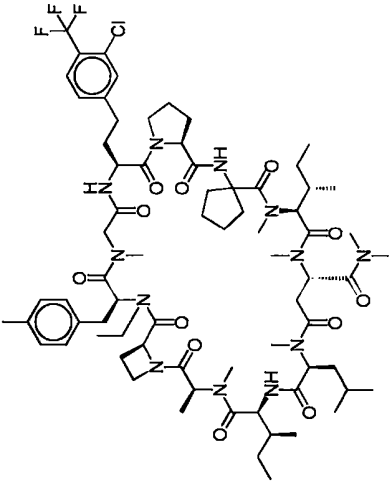
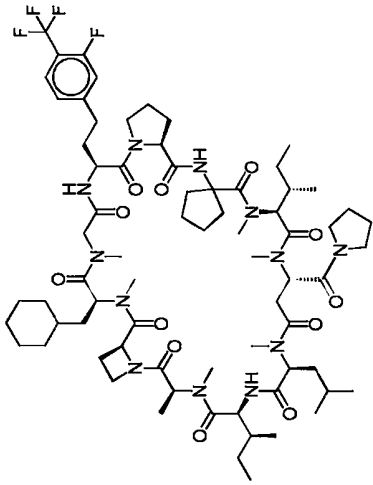
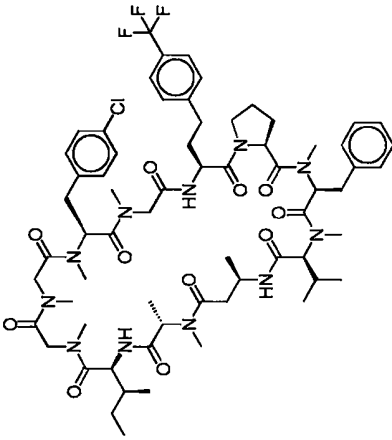
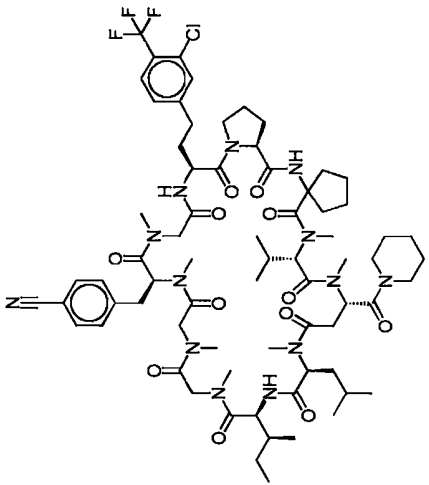
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858	860
	
857	859

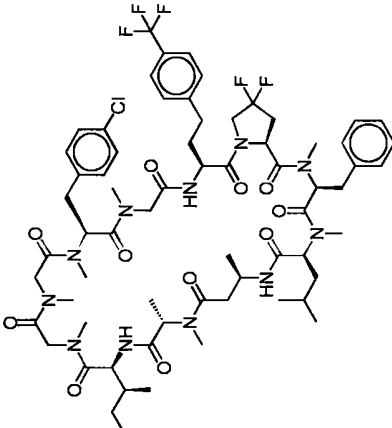
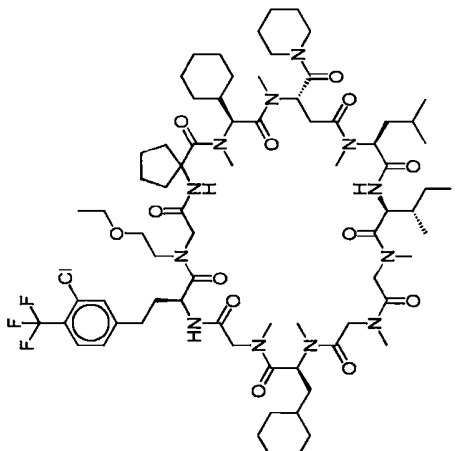
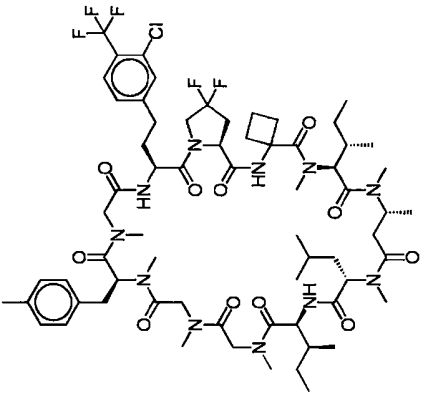
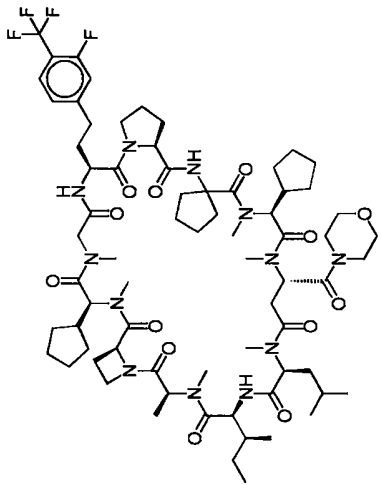
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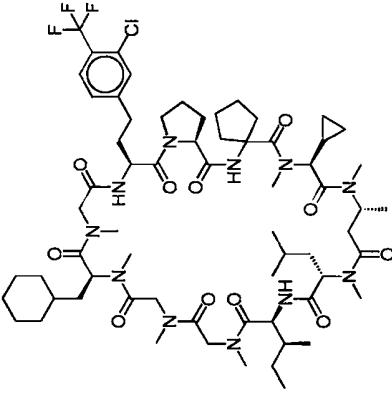
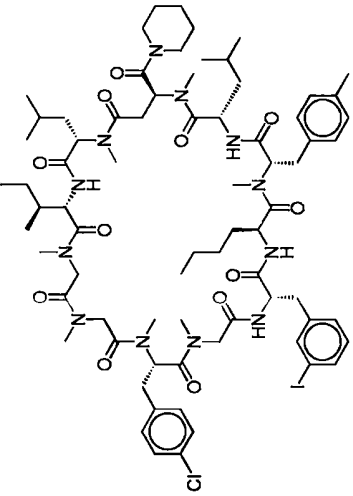
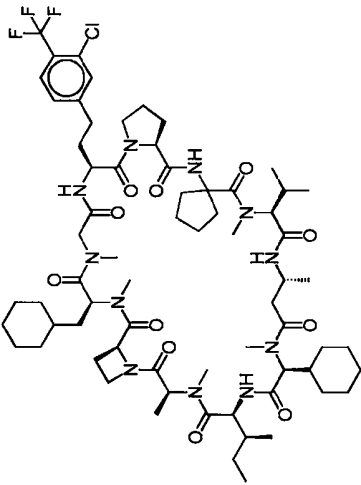
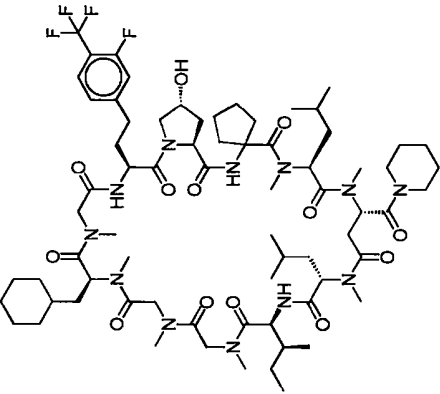
	
862	864
	
861	863

[5393]

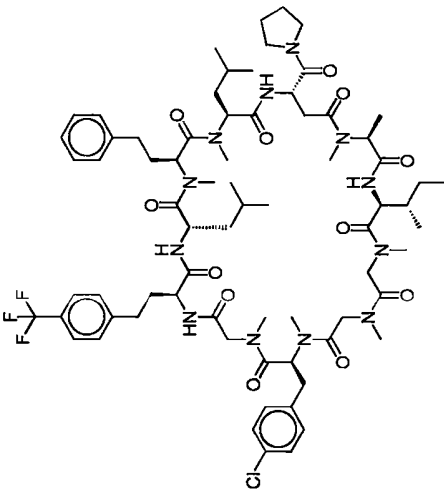
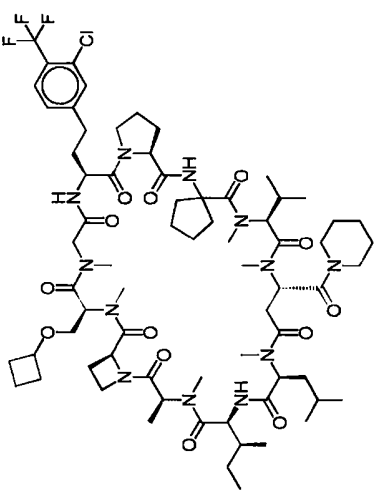
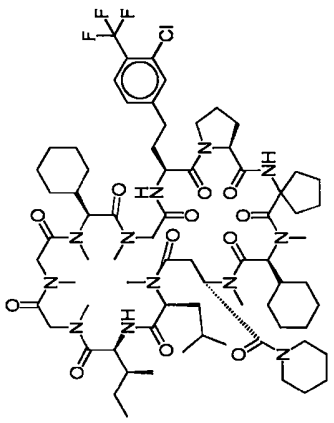
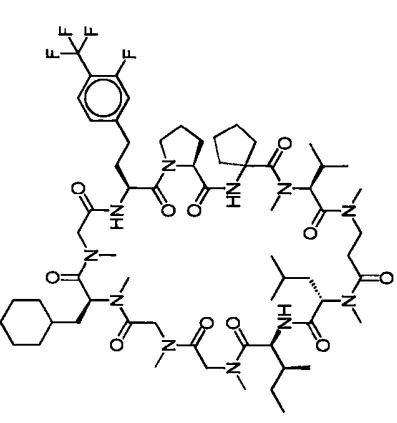
	
866	868
	
865	867

[5394]

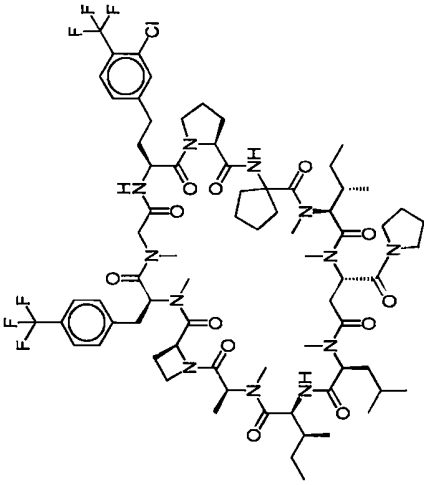
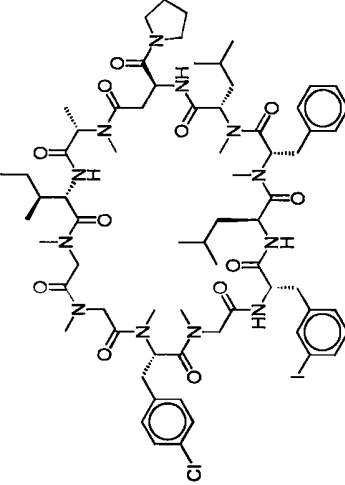
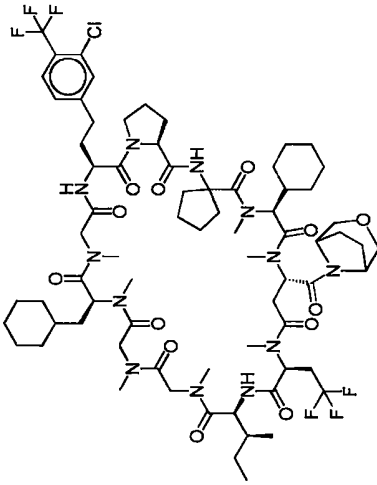
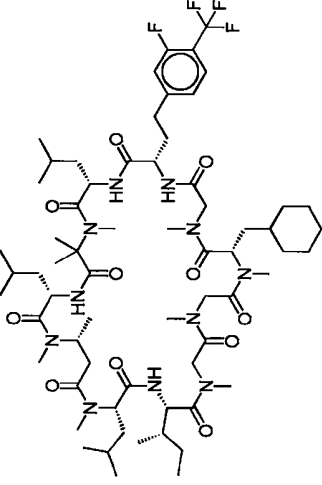
	
870	872
	
869	871

	
874	876
	
873	875

[5395]

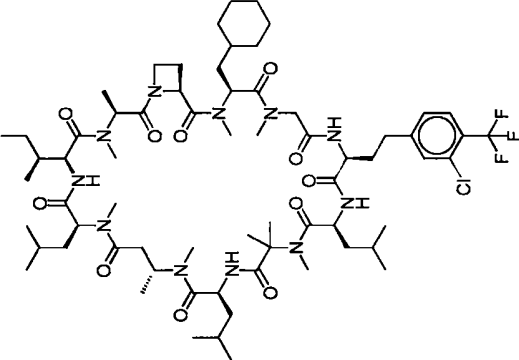
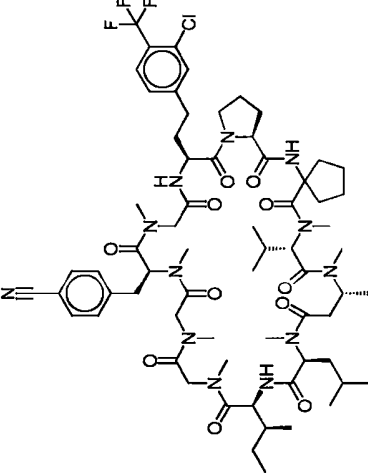
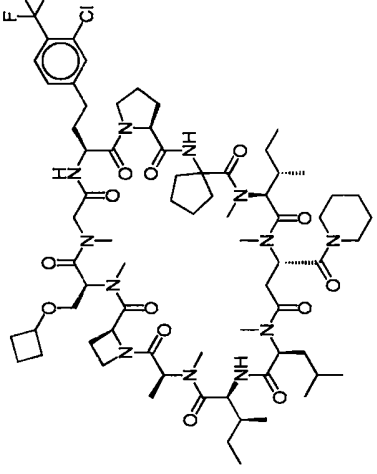
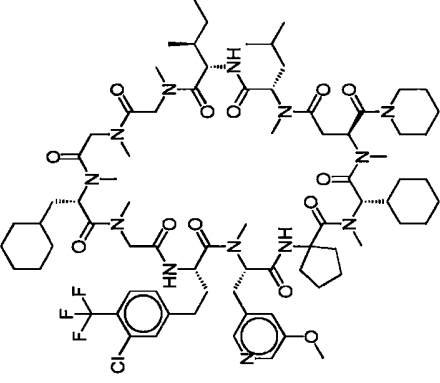
	
878	880
	
877	879

[5396]

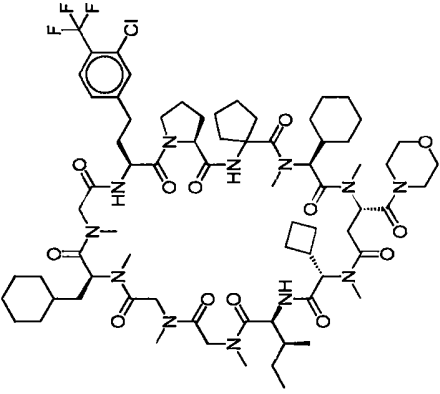
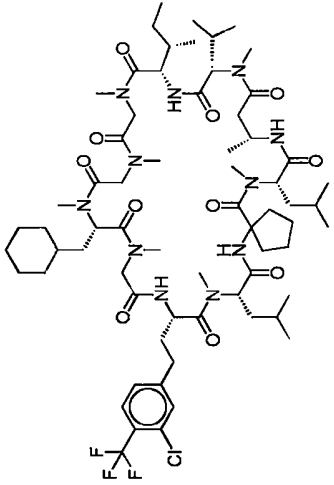
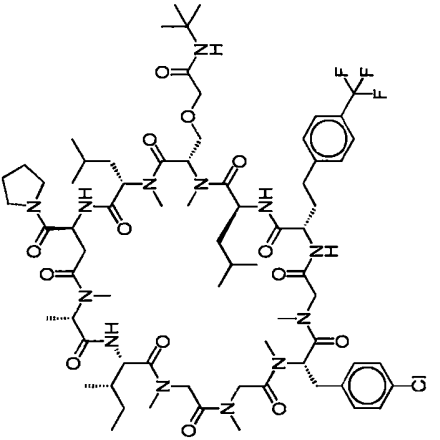
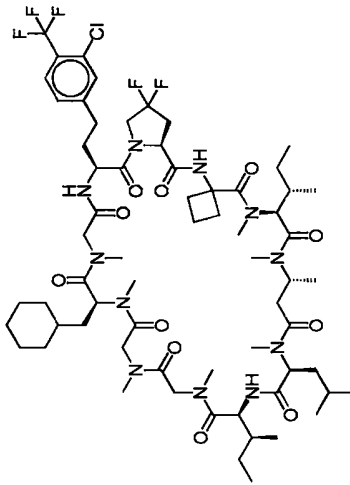
	
882	884
	
881	883

[5397]

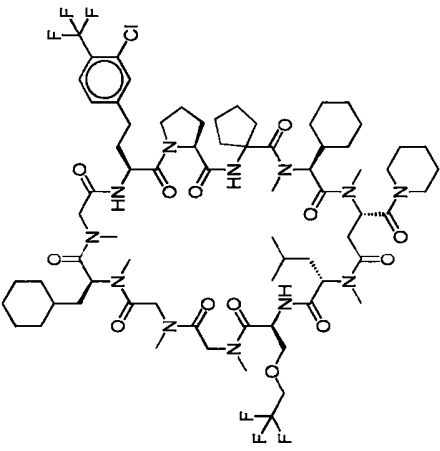
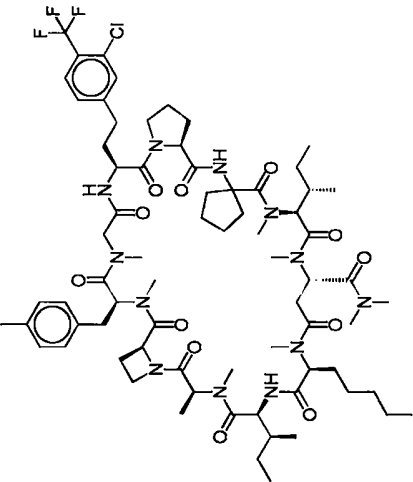
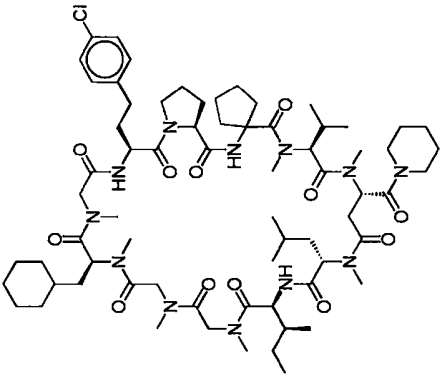
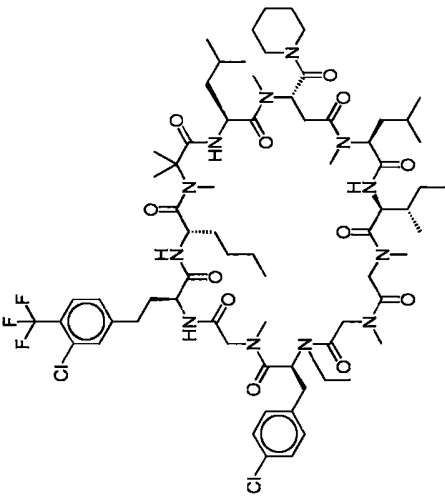
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886	888
	
885	887

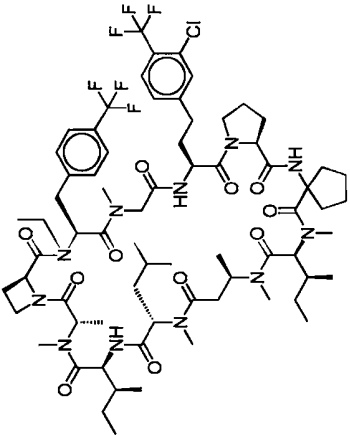
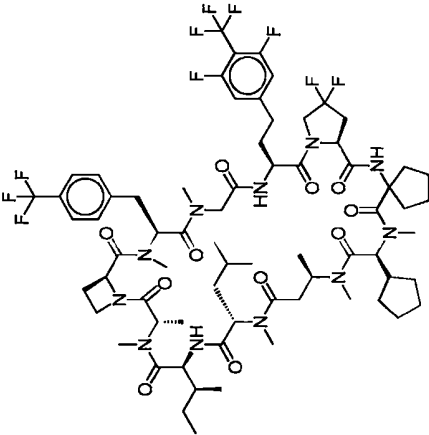
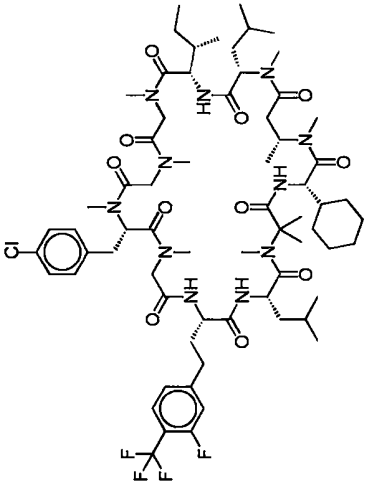
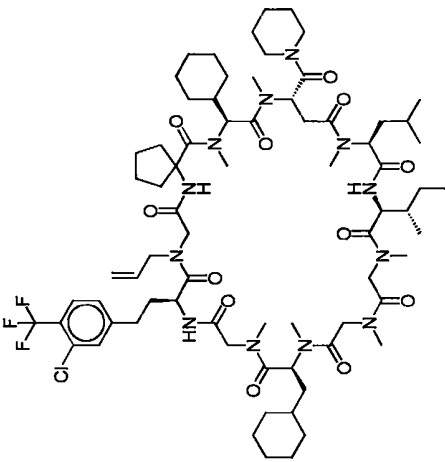
[5399]

	
890	892
	
889	891

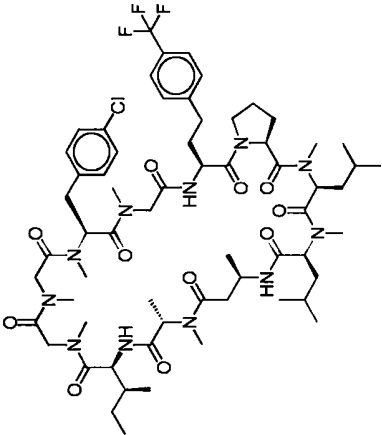
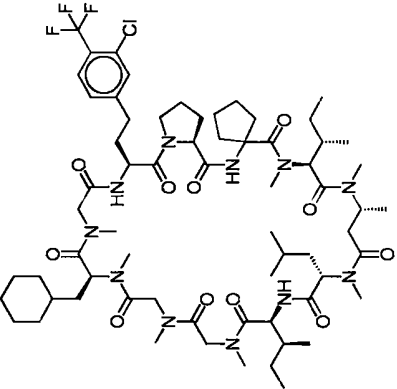
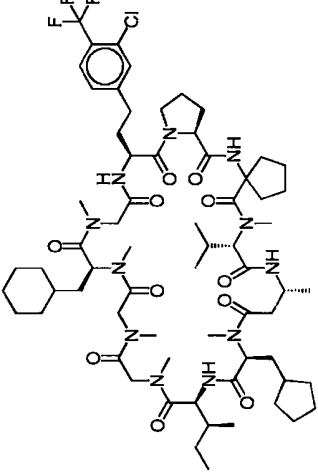
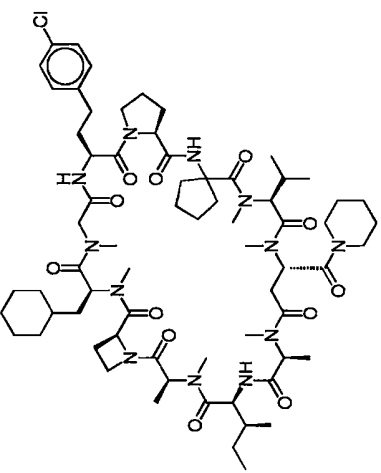
[5400]

	
894	896
	
893	895

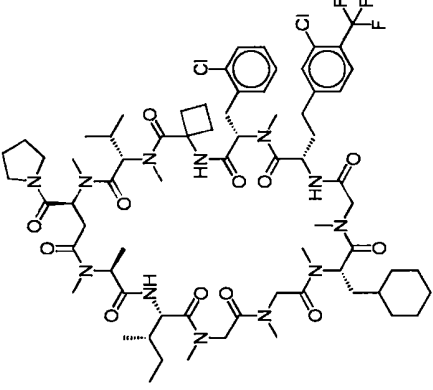
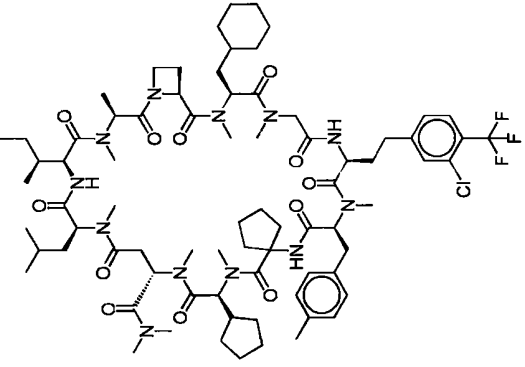
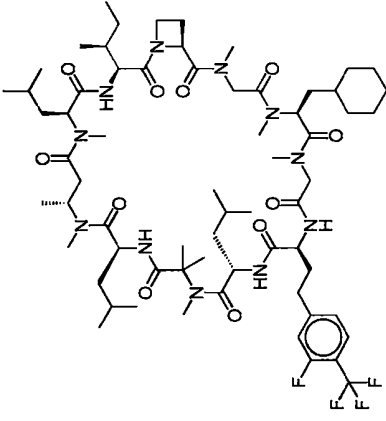
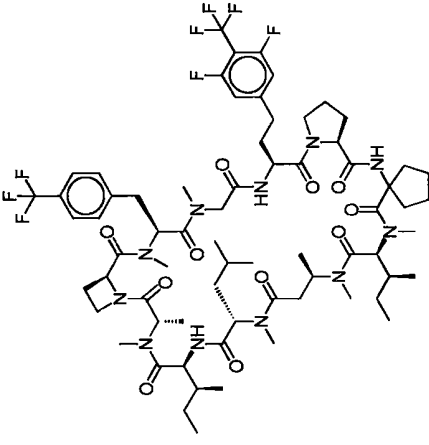
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898	900
	
897	899

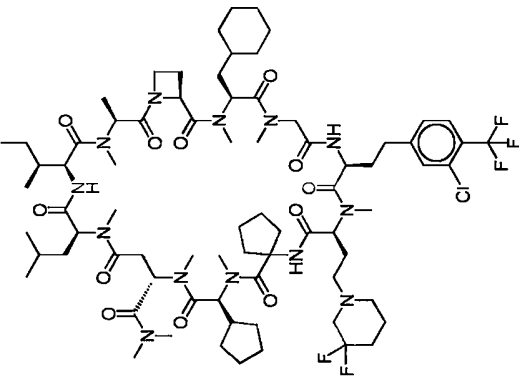
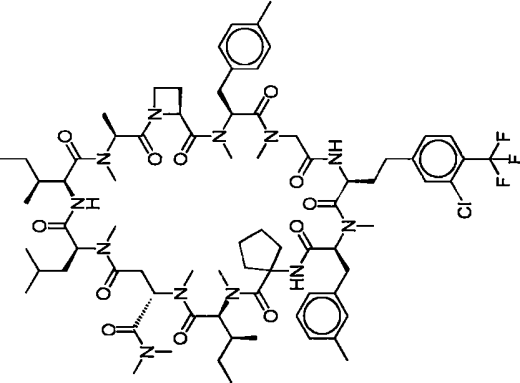
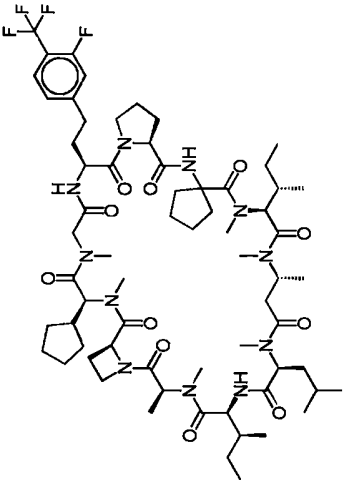
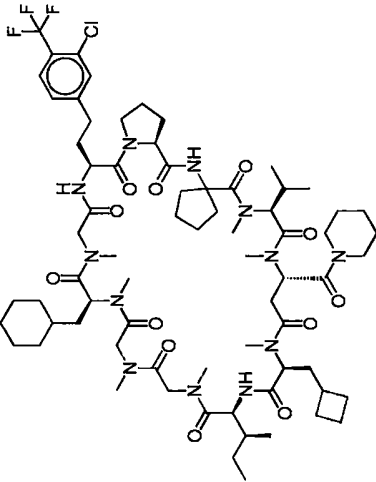
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902	904
	
901	903

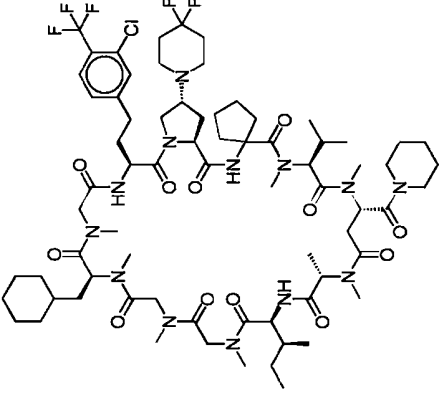
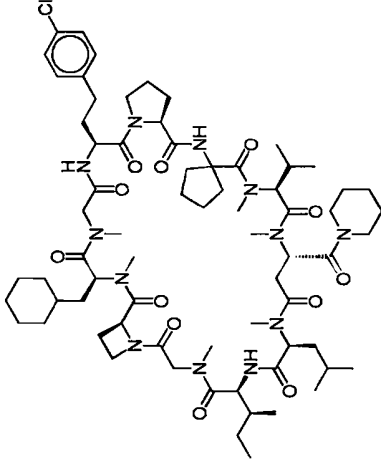
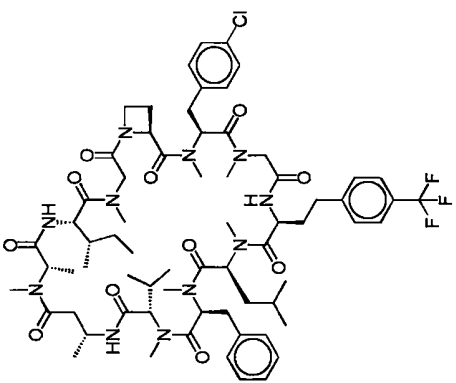
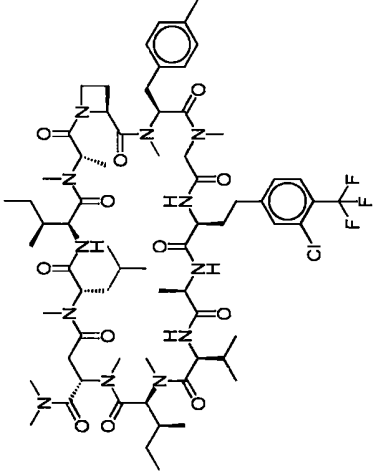
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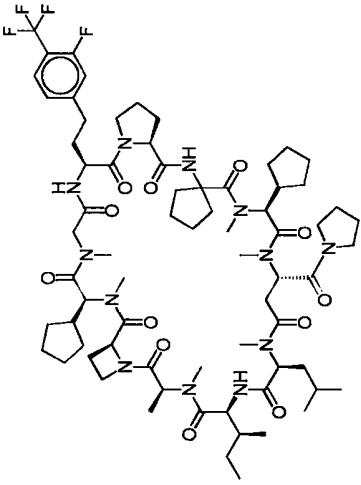
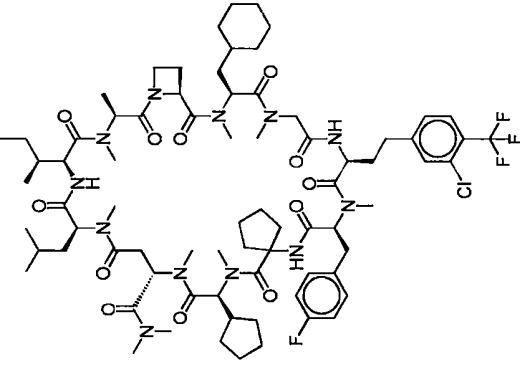
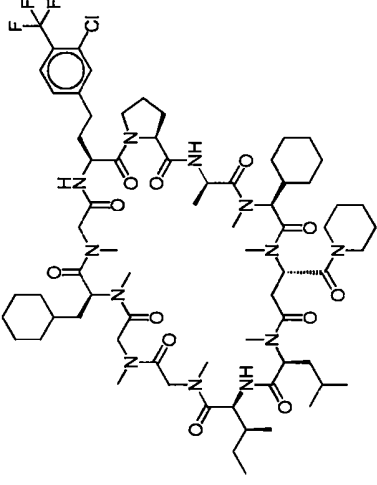
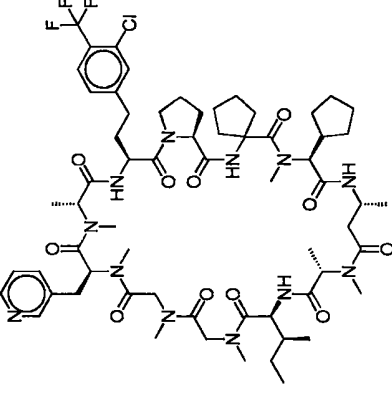
	
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[5404]

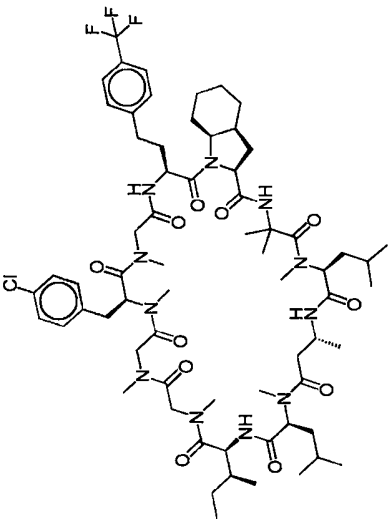
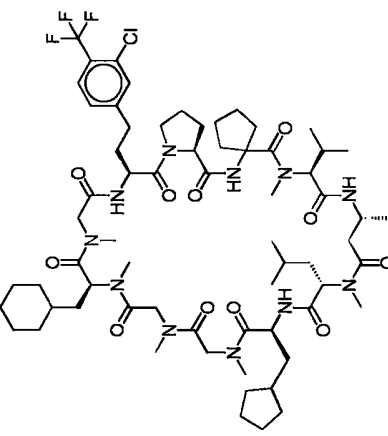
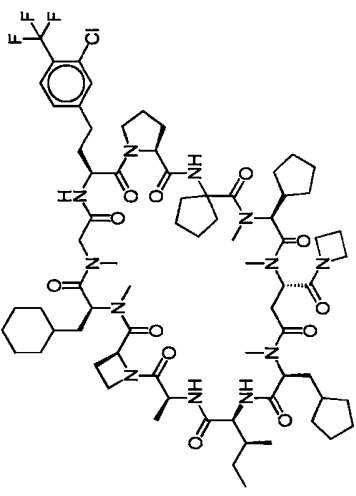
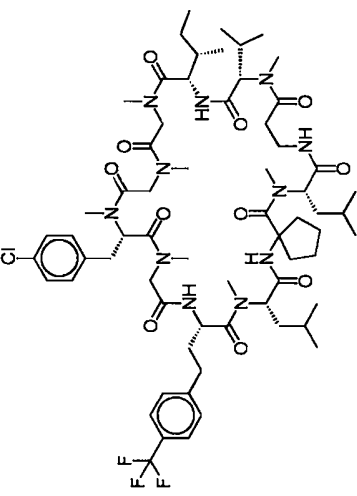
	
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[5405]

	
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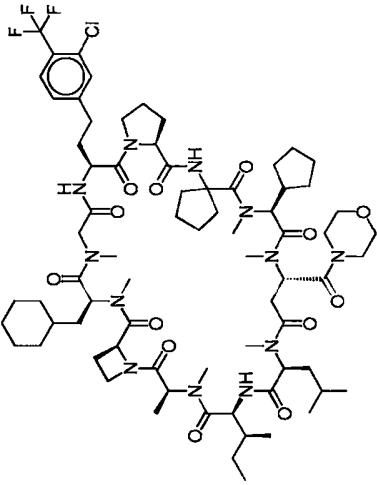
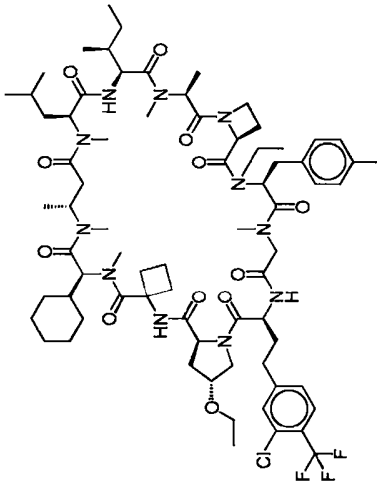
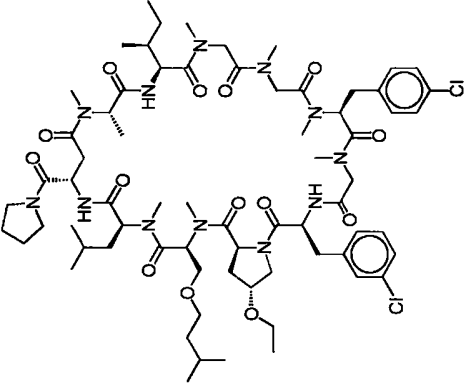
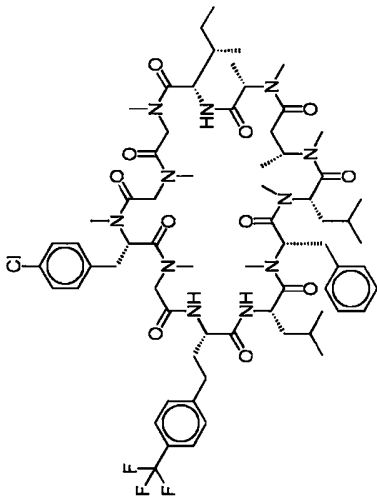
	
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[5406]

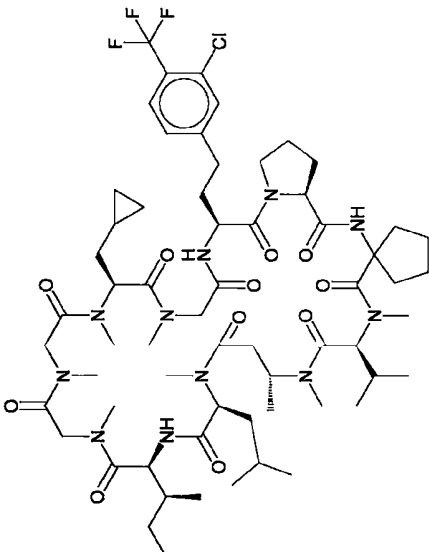
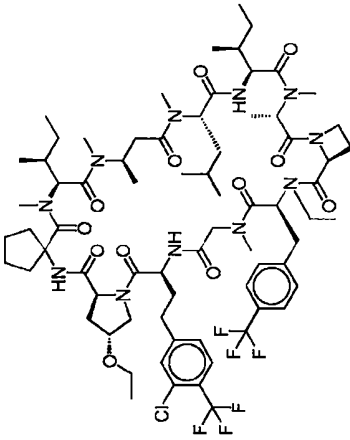
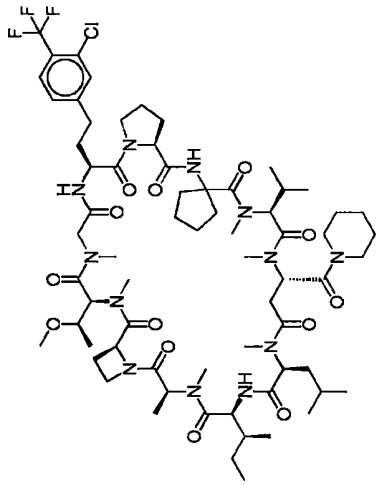
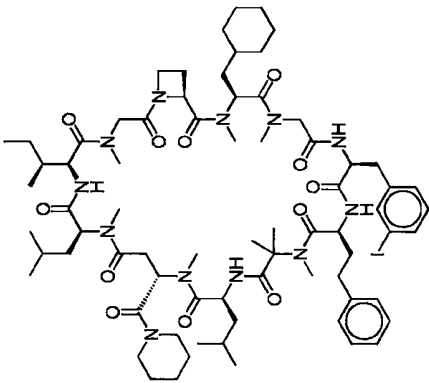
	
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[5407]

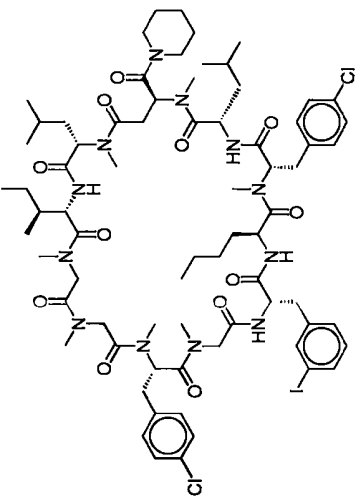
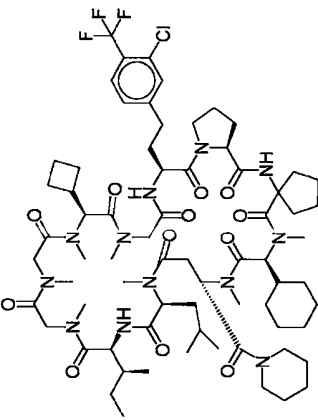
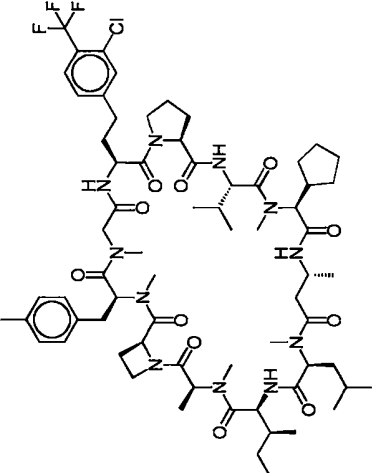
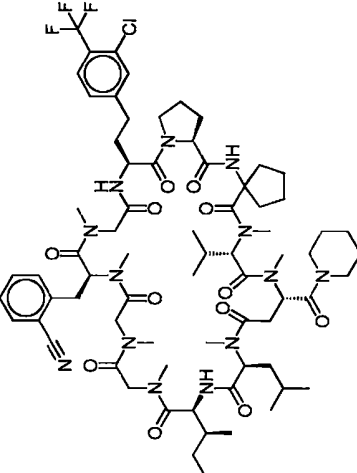
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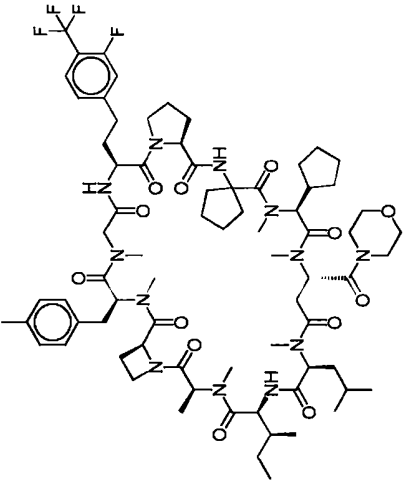
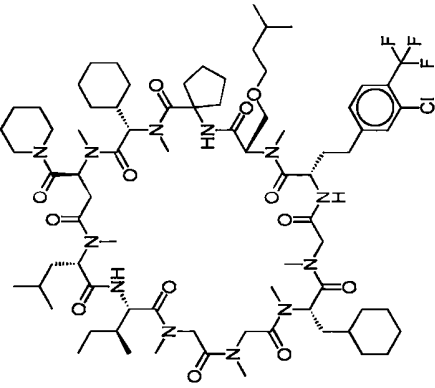
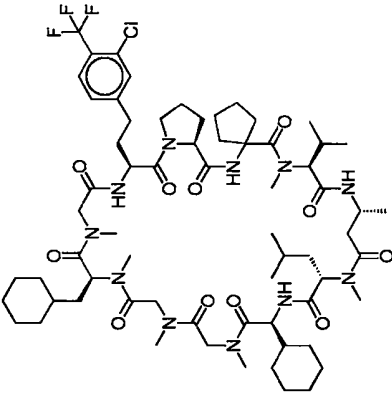
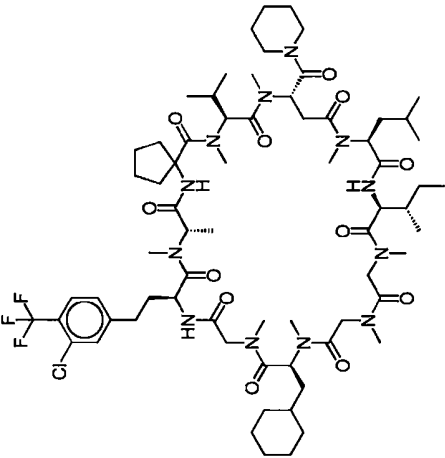
	
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[5409]

	
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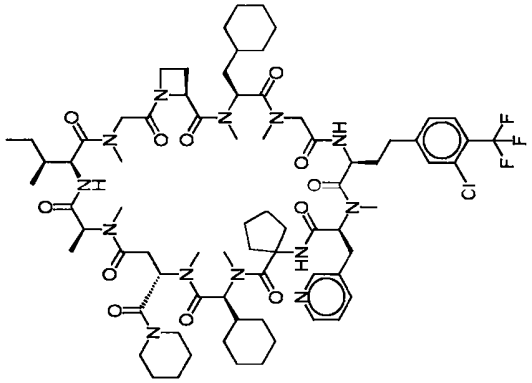
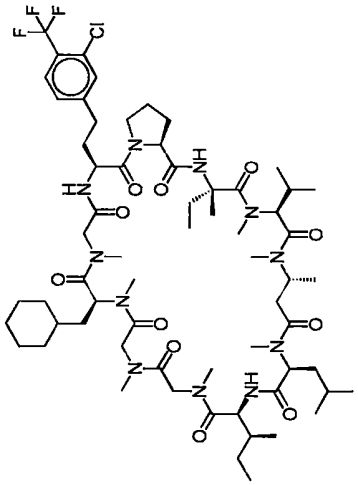
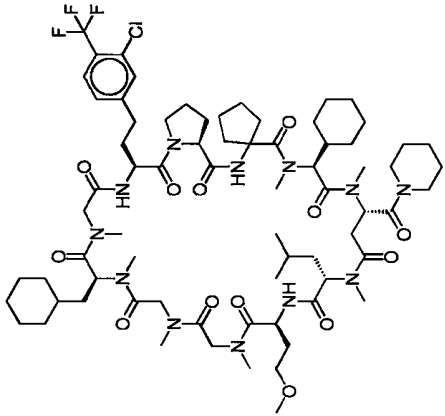
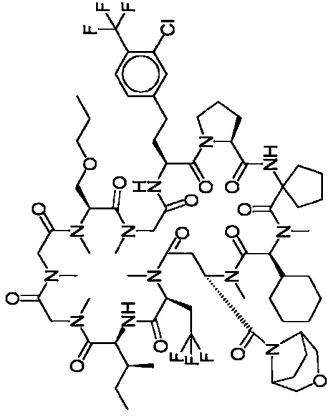
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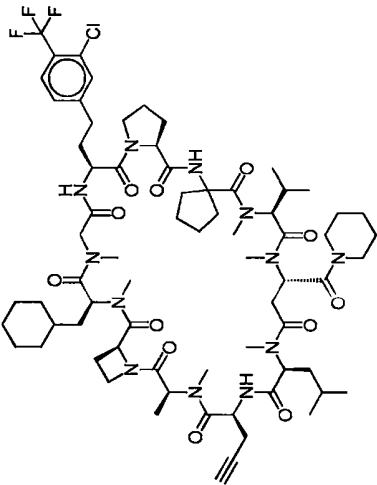
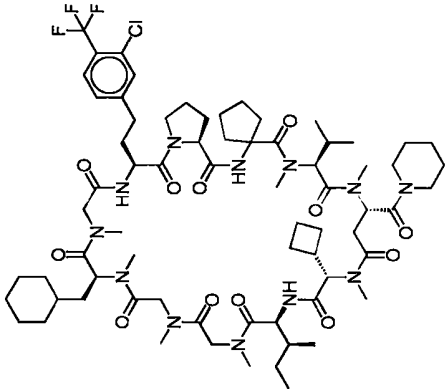
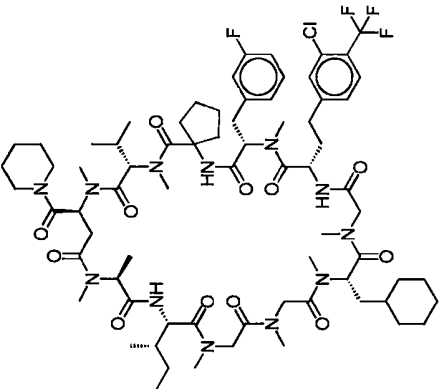
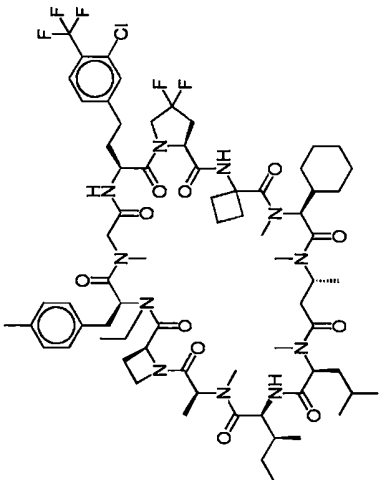
	
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[5411]

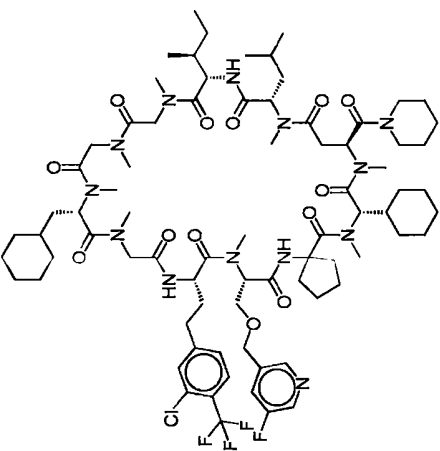
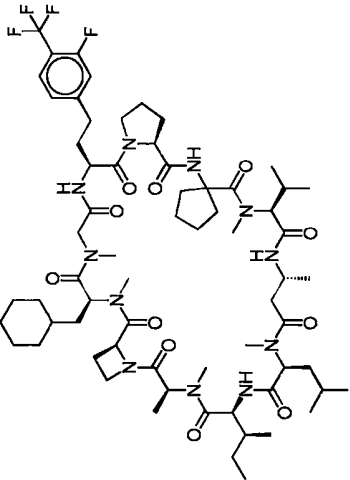
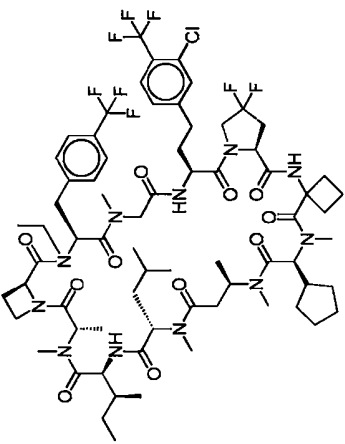
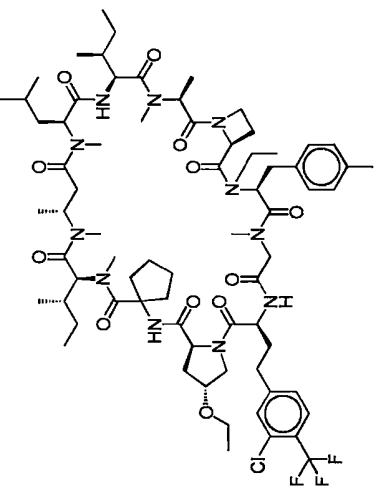
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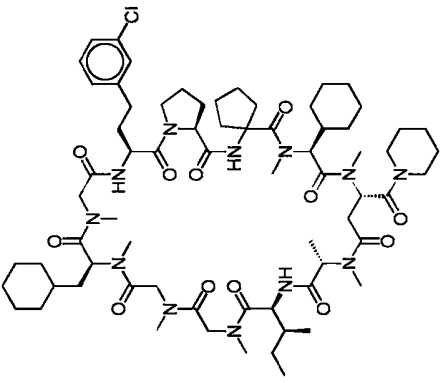
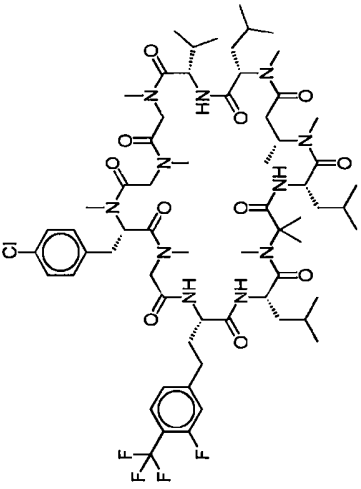
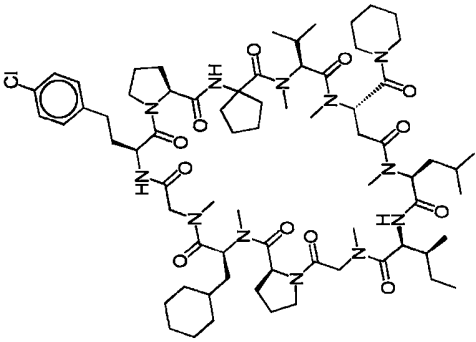
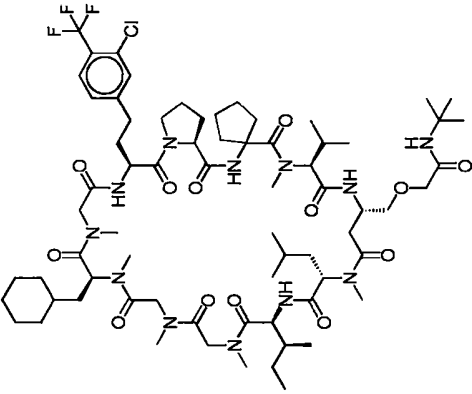
	
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[5413]

	
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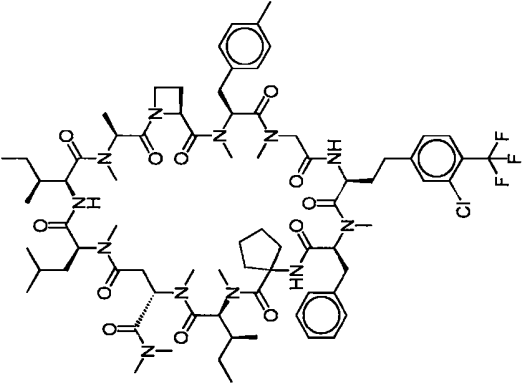
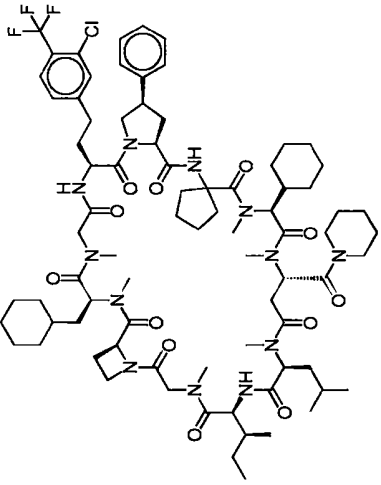
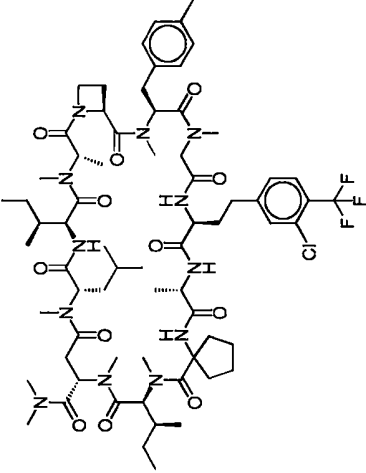
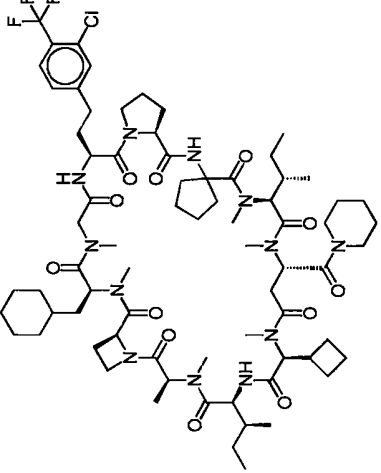
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949	951

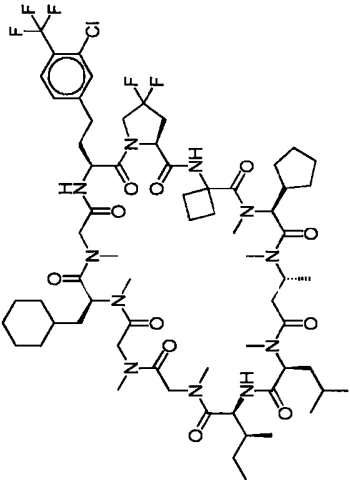
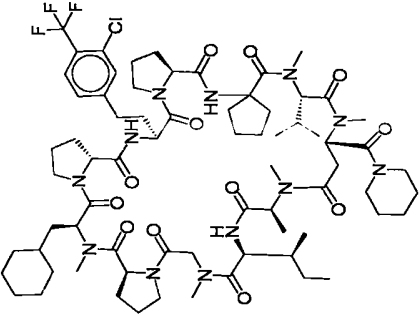
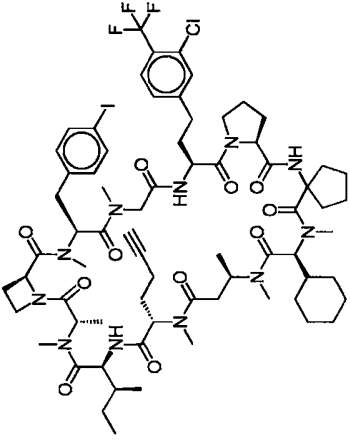
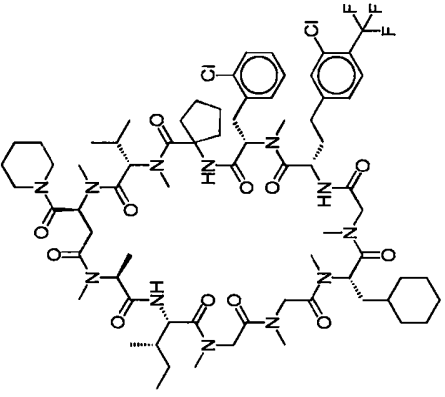
	
954	956
	
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[5415]

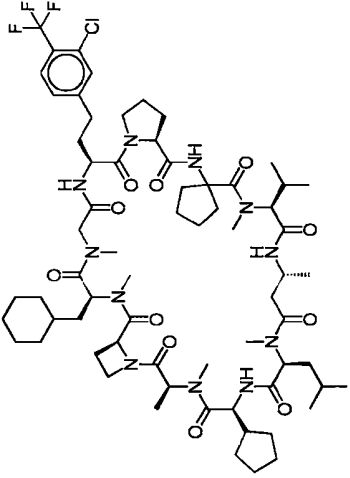
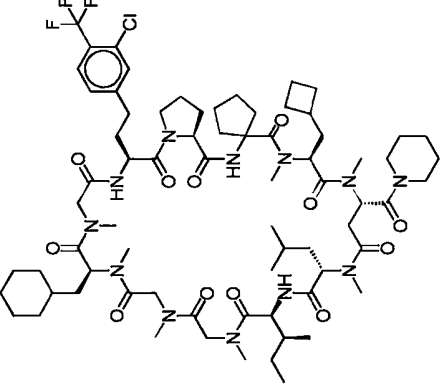
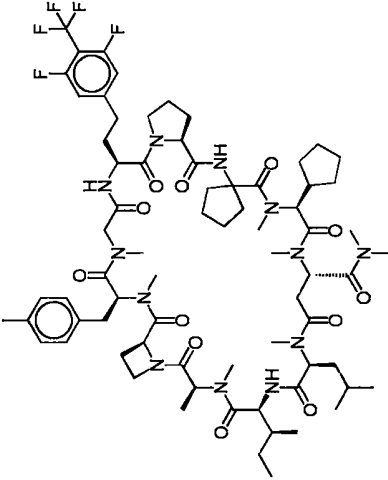
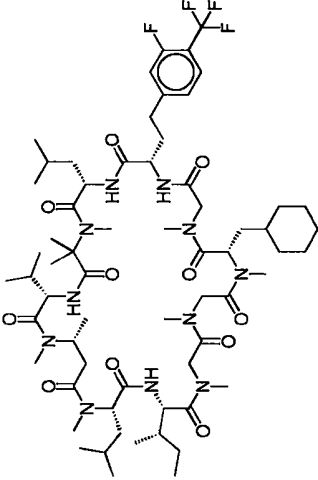
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958	960
	
957	959

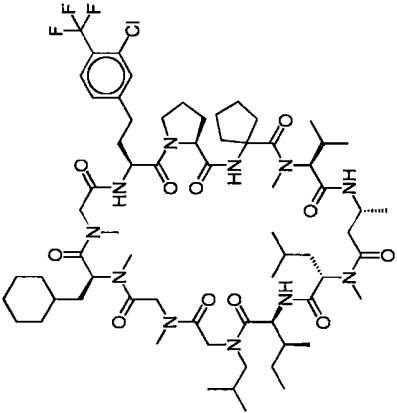
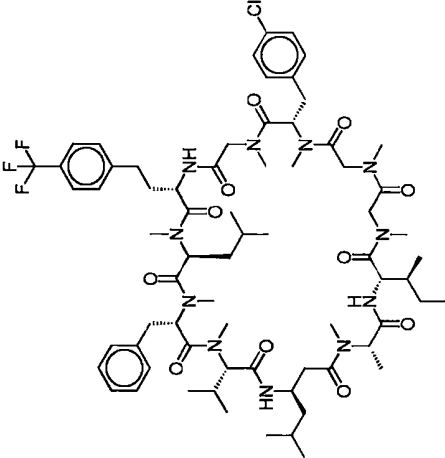
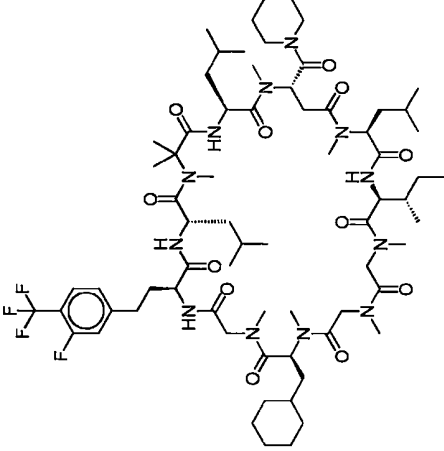
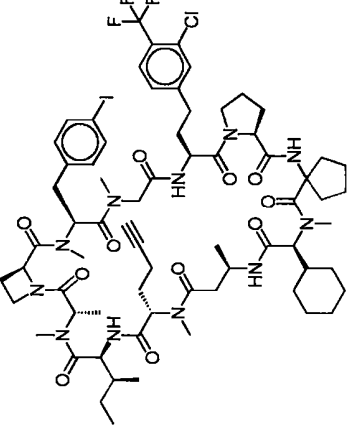
[5417]

	
962	964
	
961	963

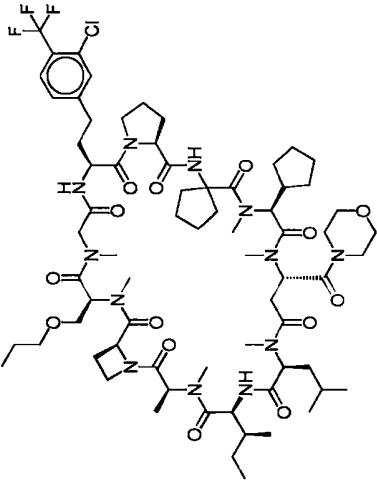
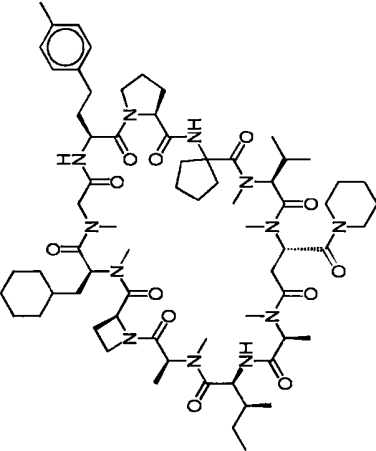
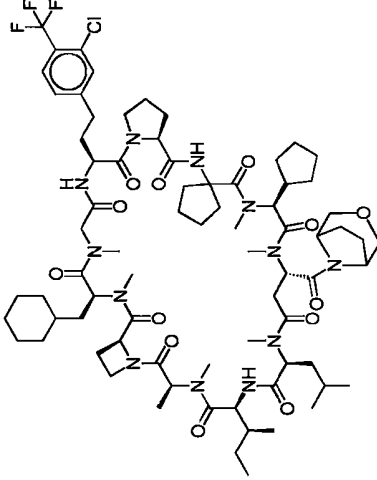
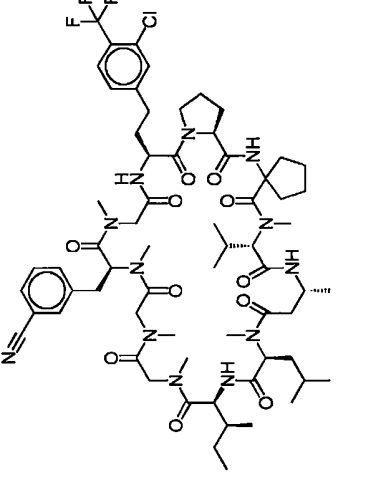
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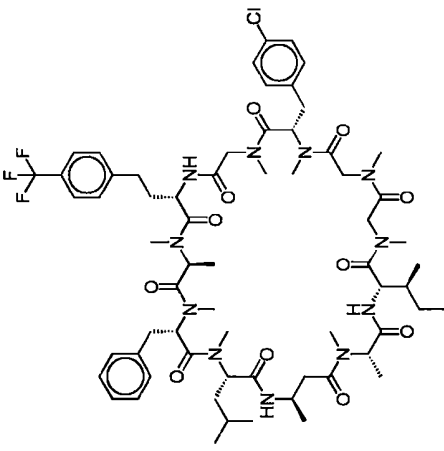
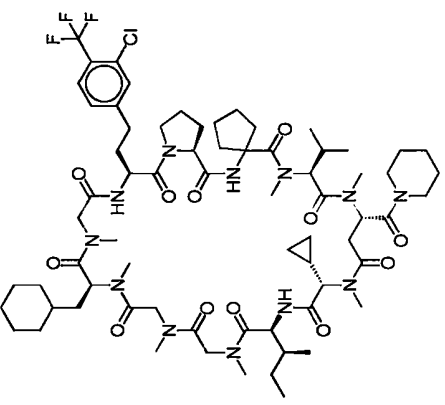
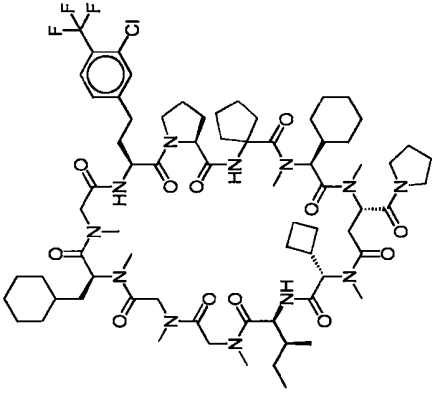
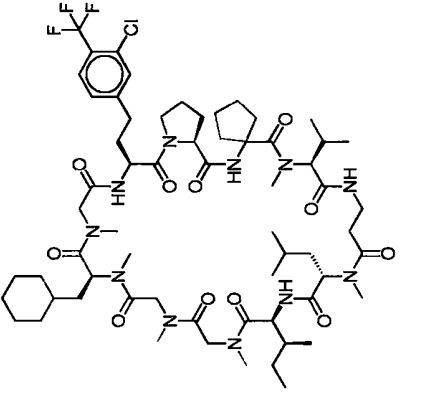
	
966	968
	
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[5419]

	
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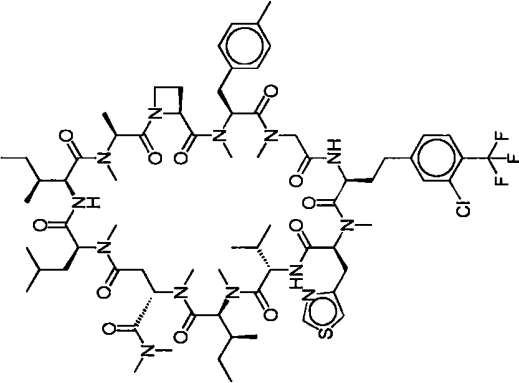
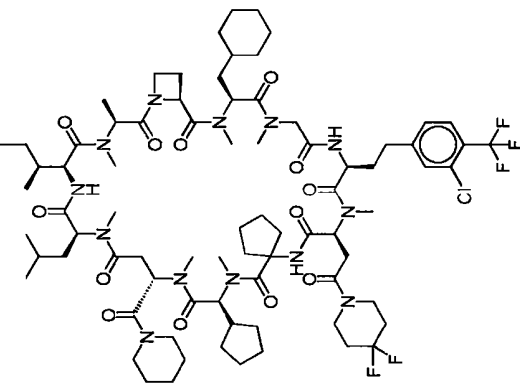
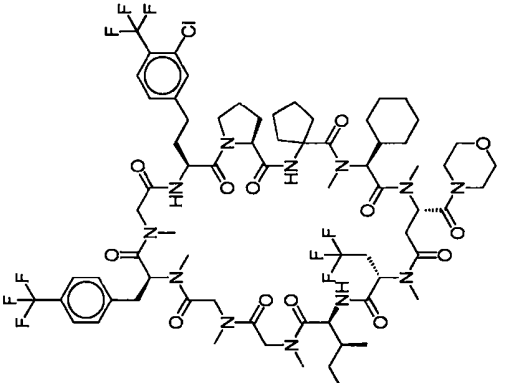
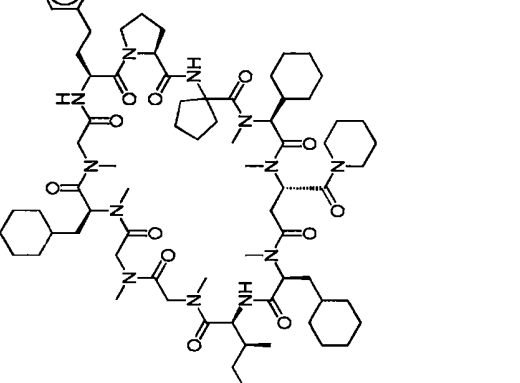
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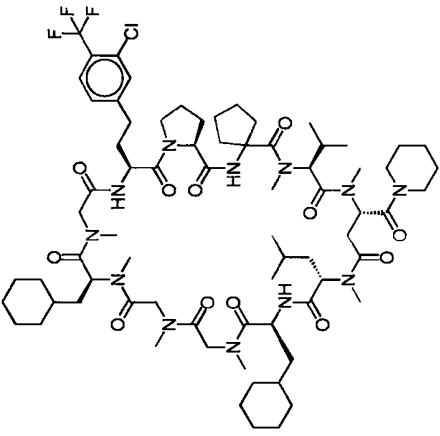
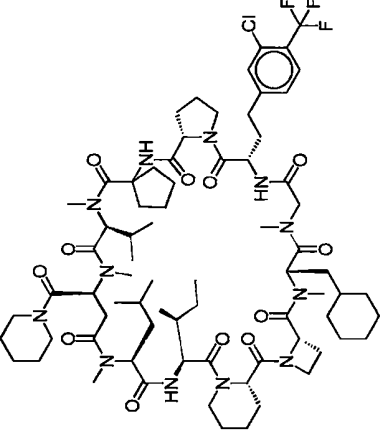
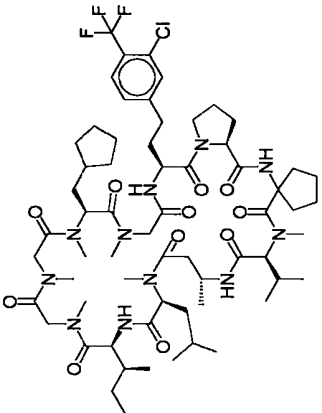
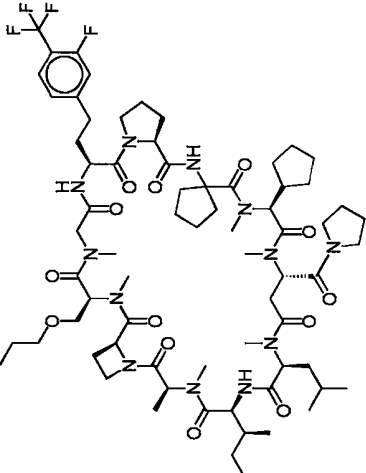
	
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[5421]

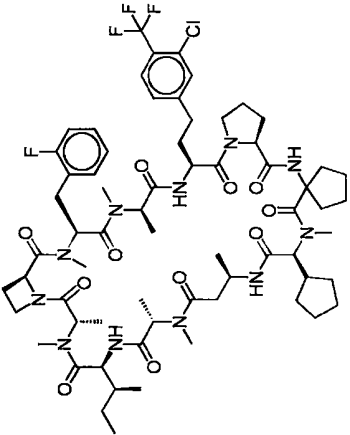
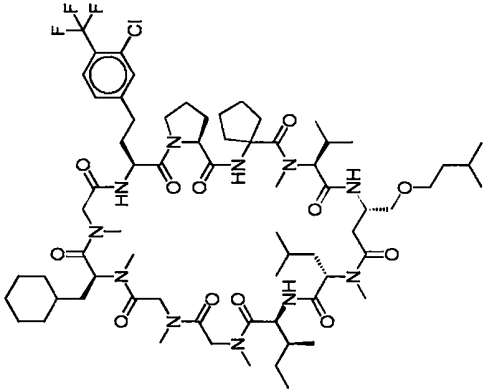
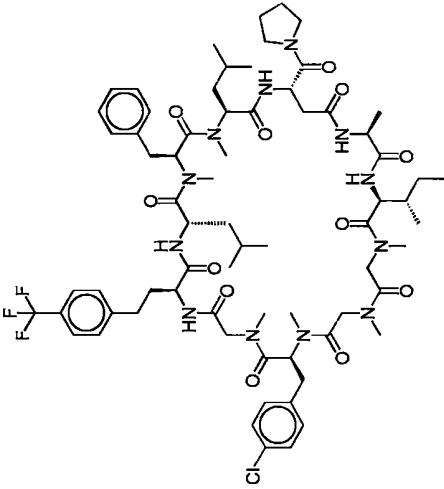
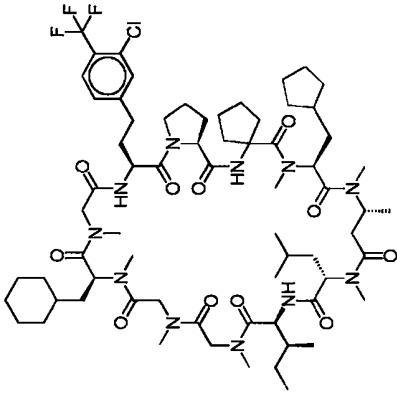
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981	983

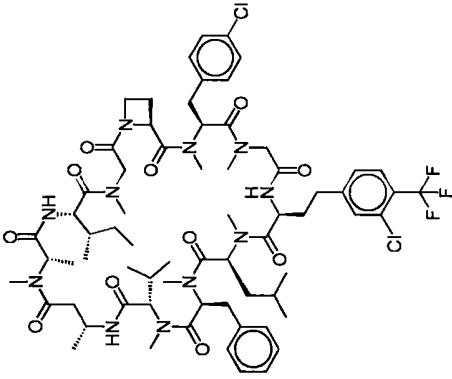
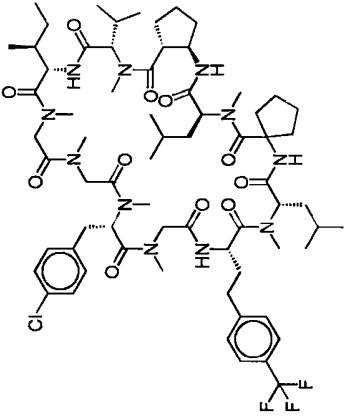
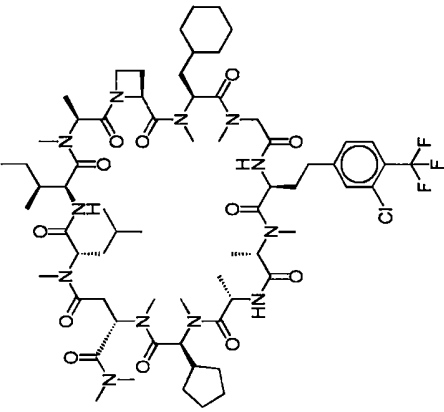
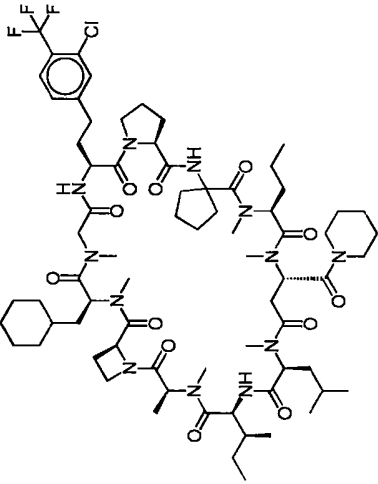
	
986	988
	
985	987

[5423]

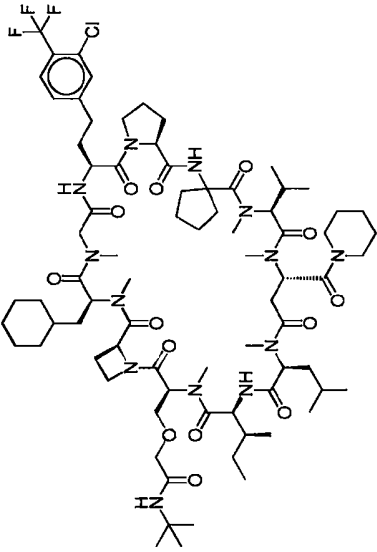
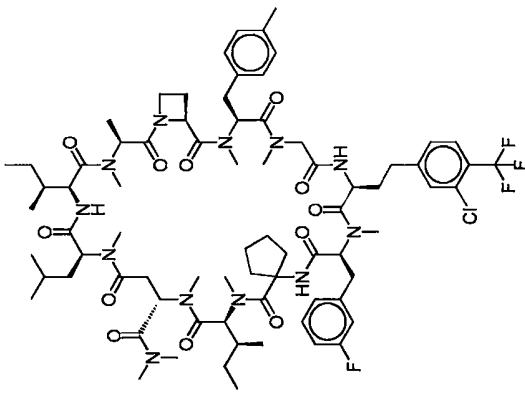
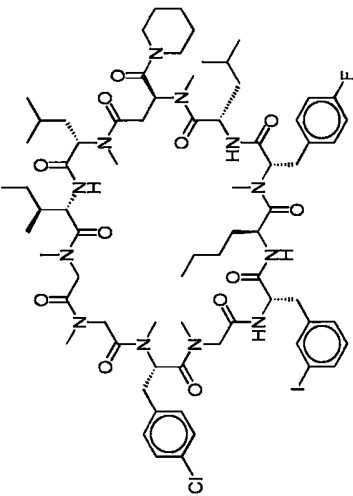
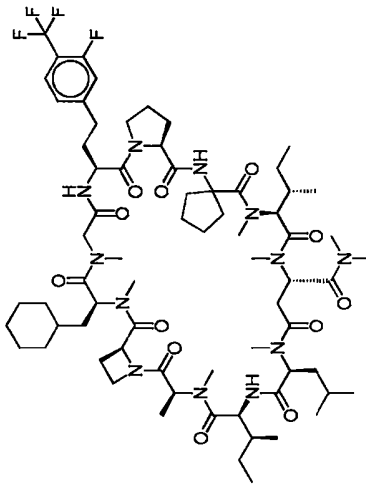
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990	992
	
989	991

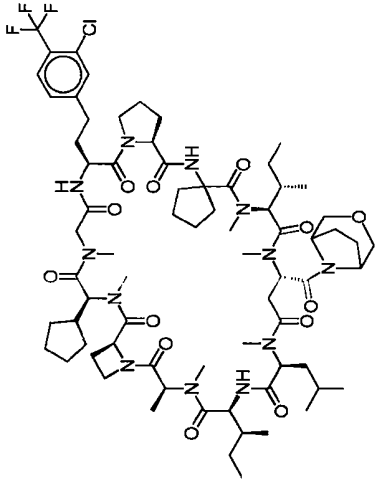
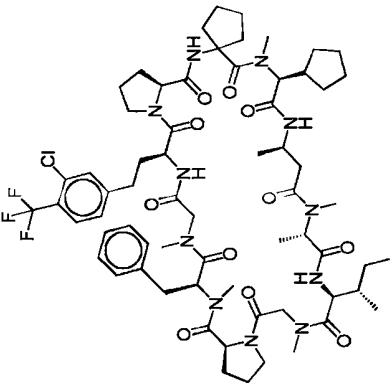
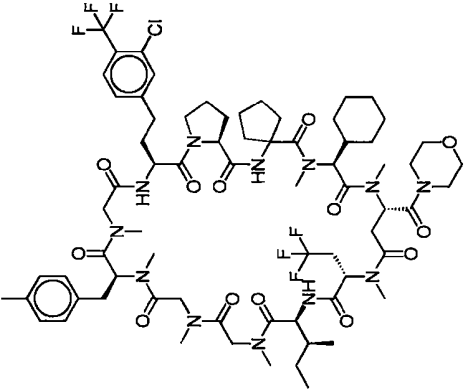
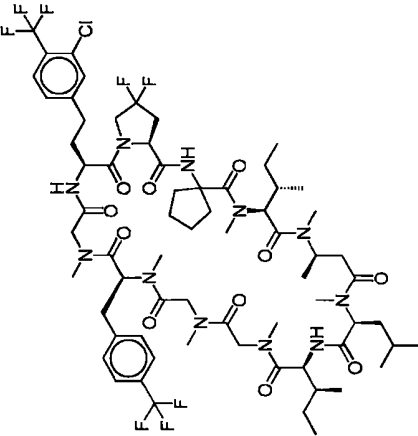
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994	996
	
993	995

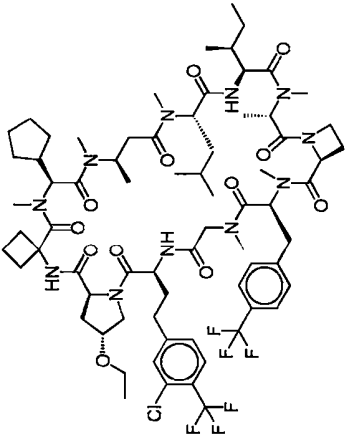
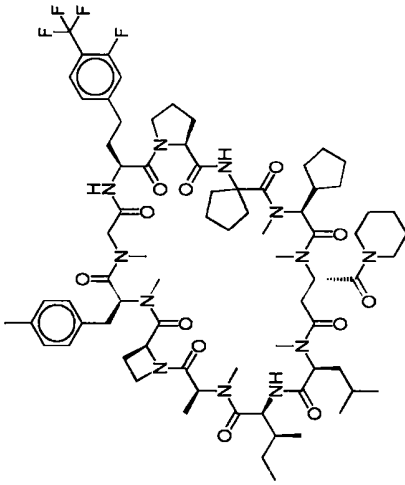
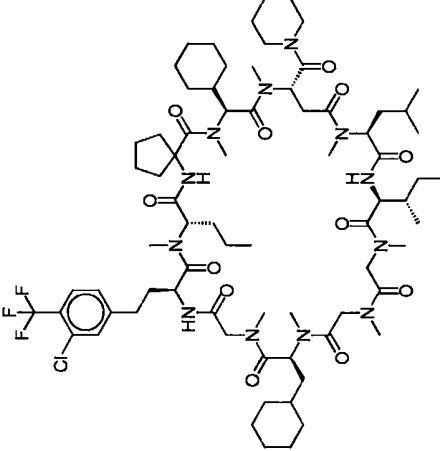
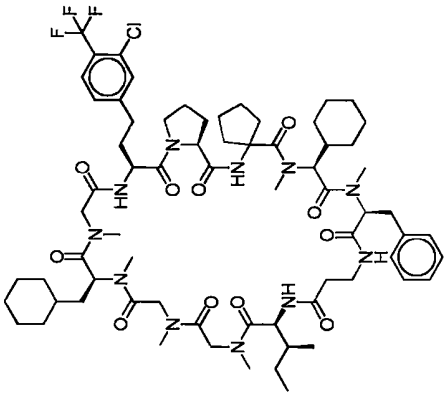
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998	1000
	
997	999

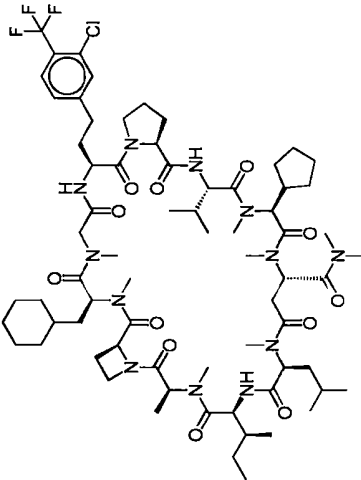
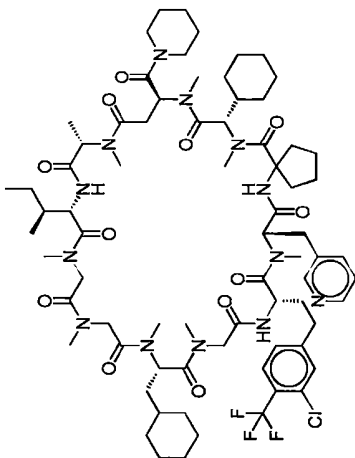
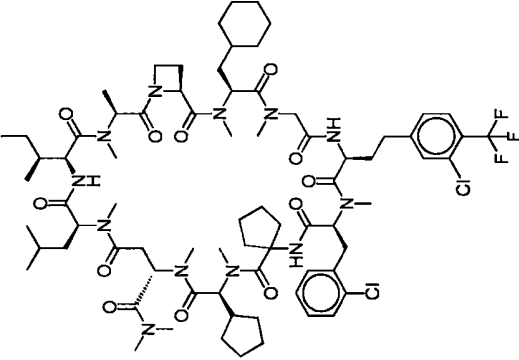
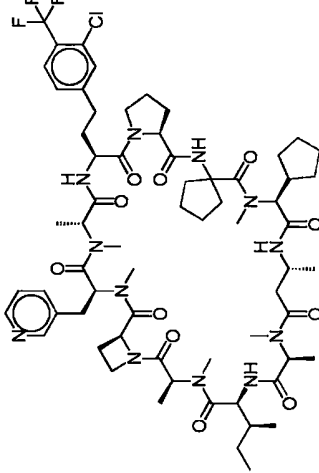
[5427]

	
1002	1004
	
1001	1003

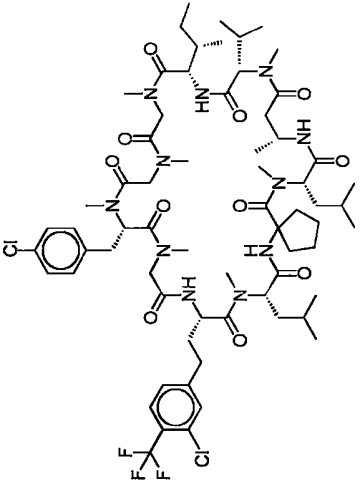
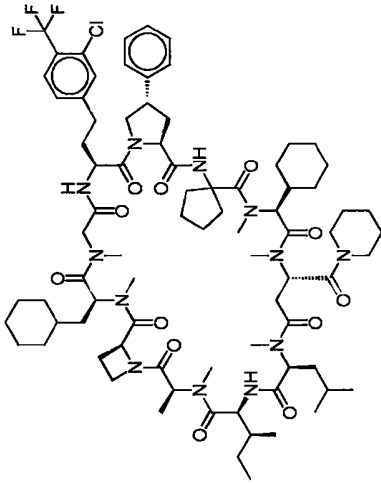
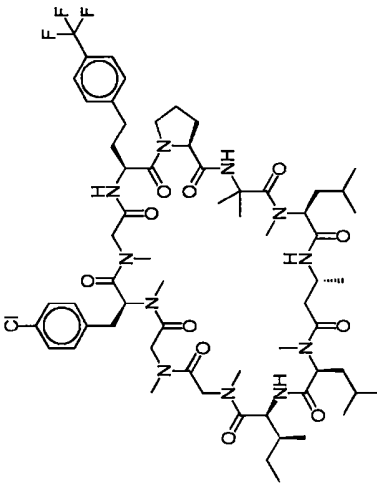
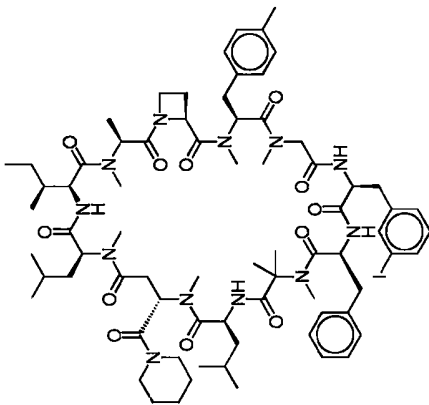
[5428]

	
1006	1008
	
1005	1007

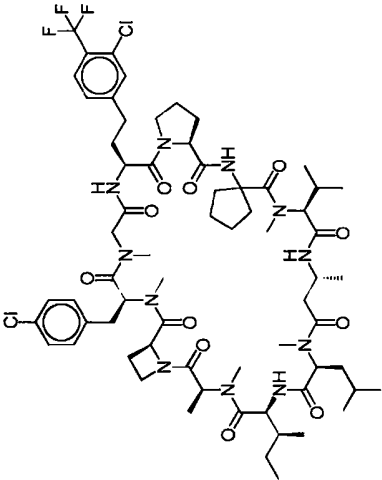
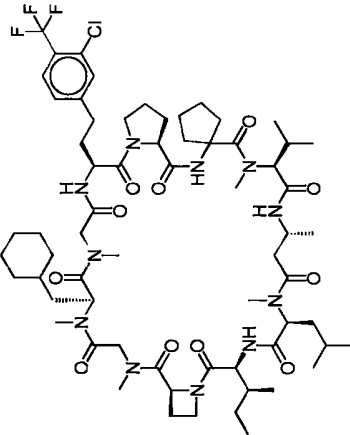
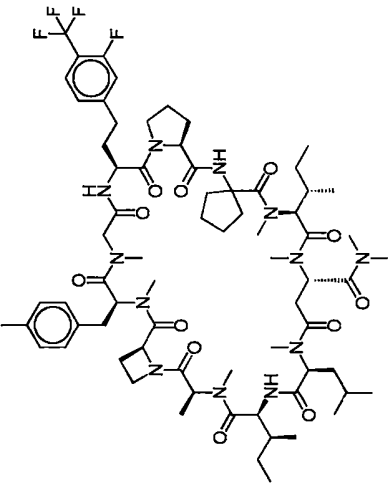
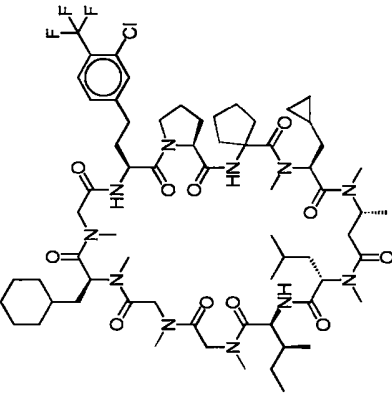
[5429]

	
1010	1012
	
1009	1011

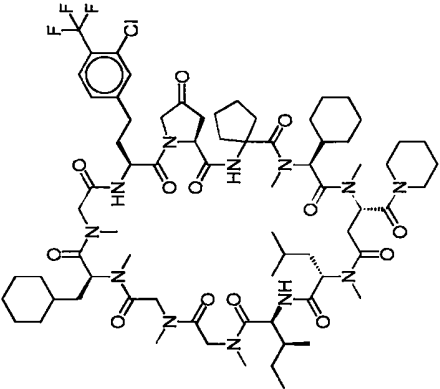
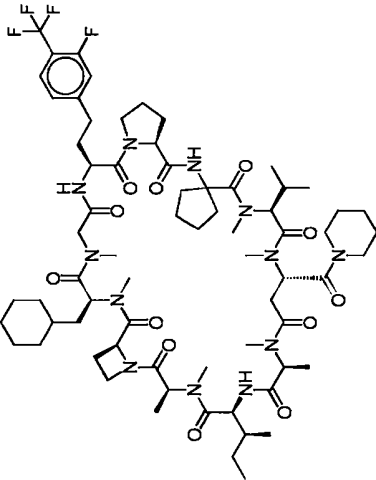
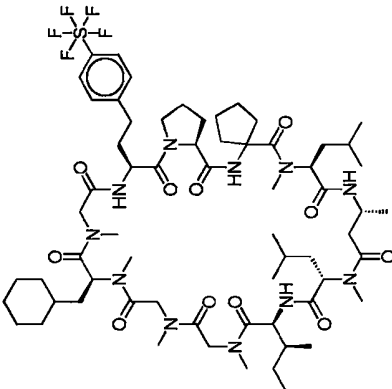
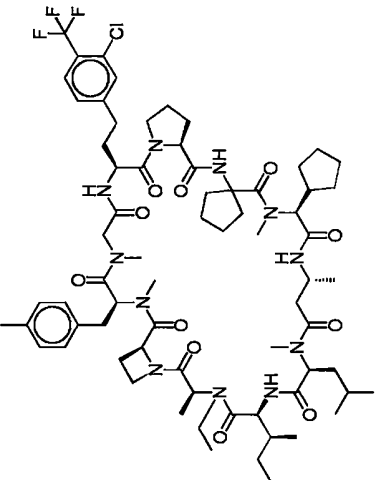
[5430]

	
1014	1016
	
1013	1015

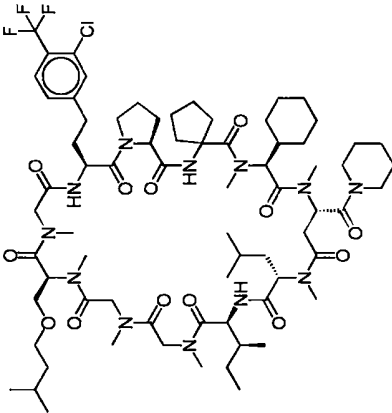
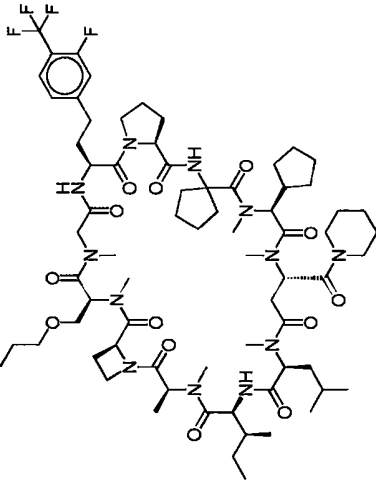
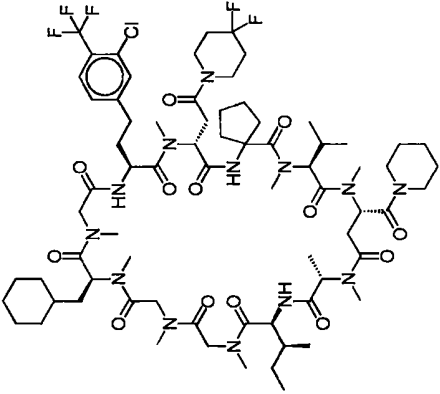
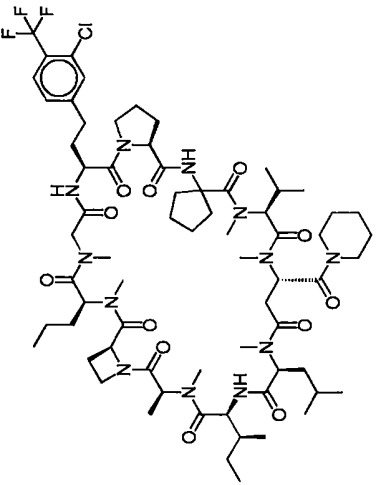
[5431]

	
1018	1020
	
1017	1019

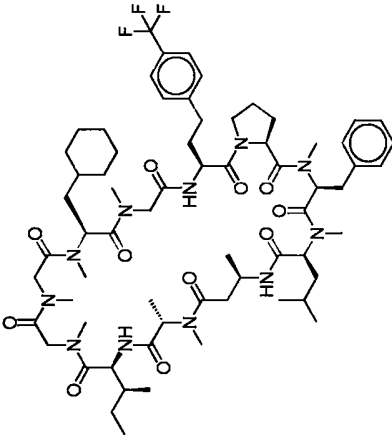
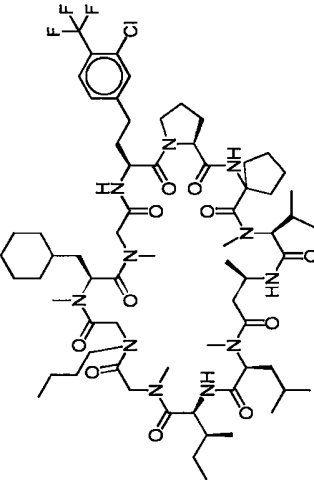
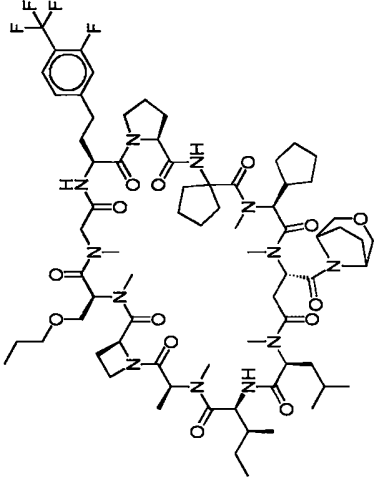
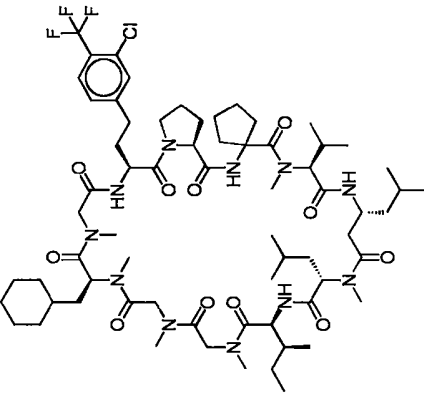
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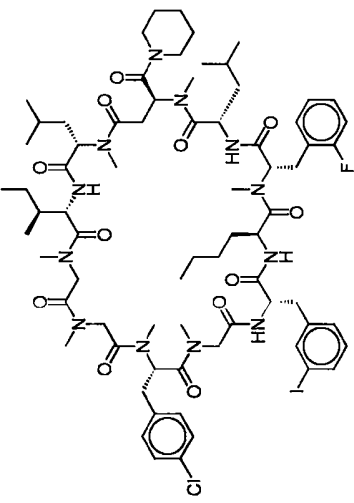
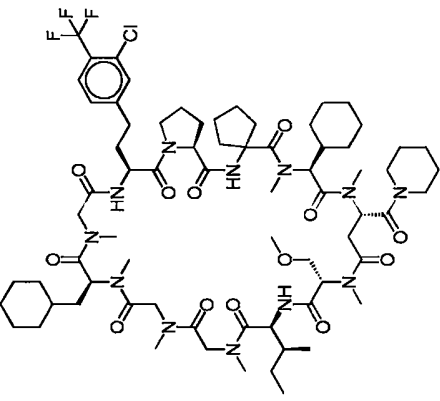
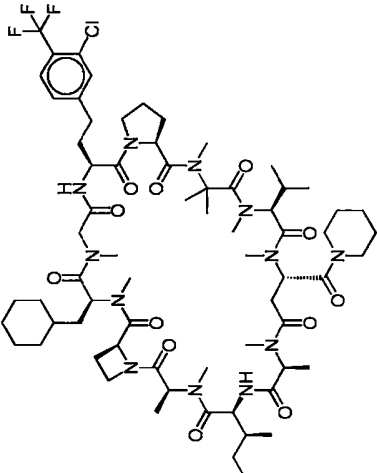
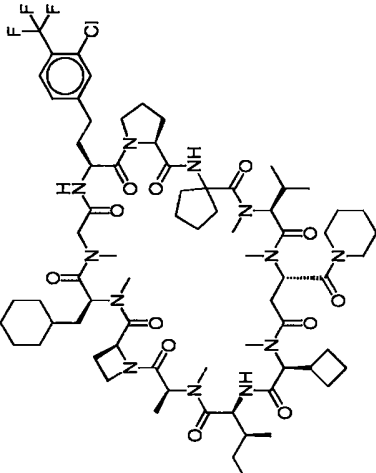
	
1022	1024
	
1021	1023

[5433]

	
1026	1029
	
1025	1027

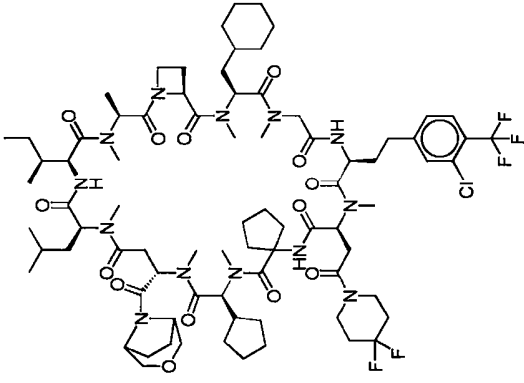
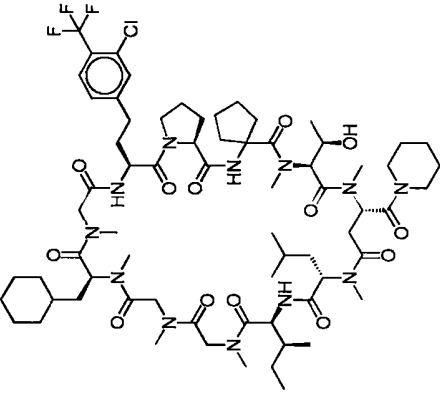
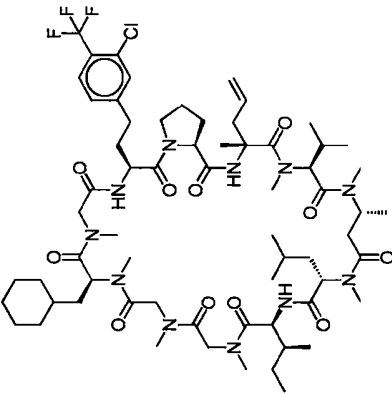
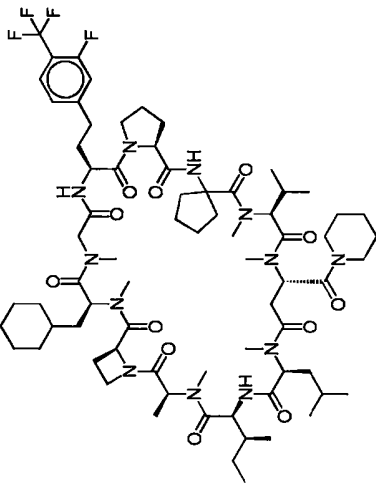
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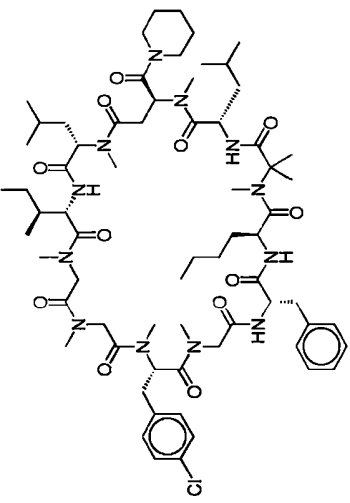
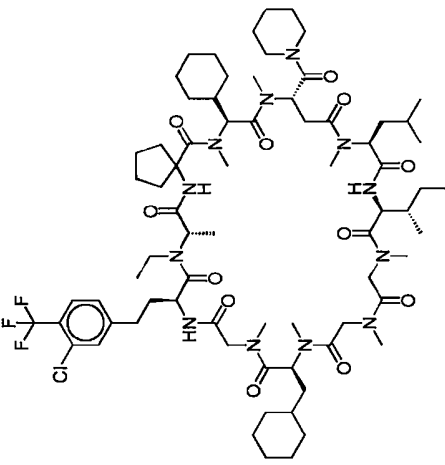
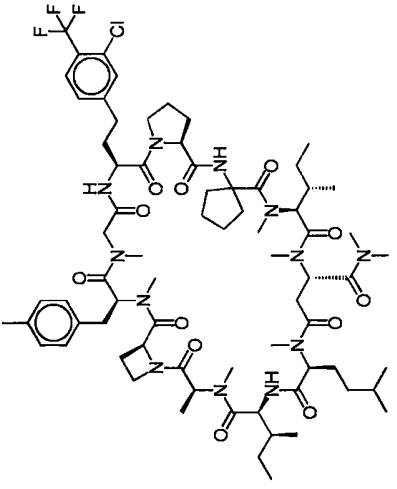
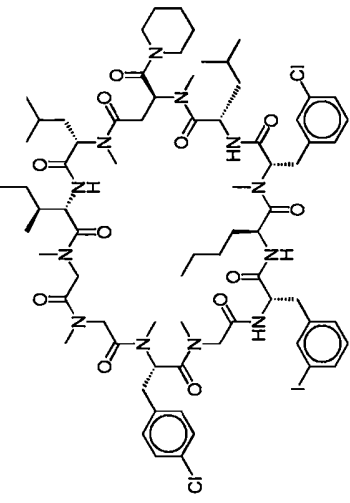
	
1031	1033
	
1030	1032

	
1035	1037
	
1034	1036

[5435]

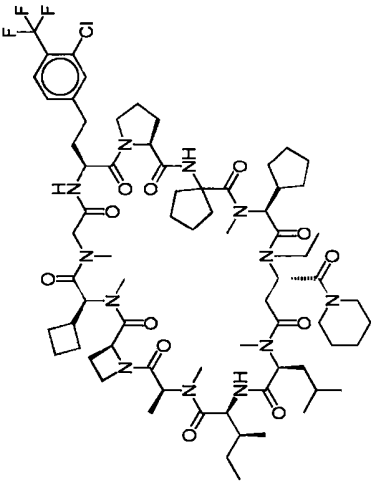
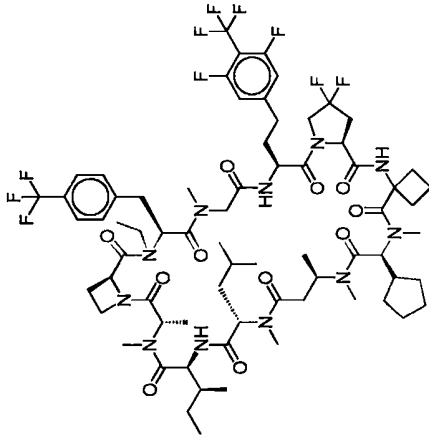
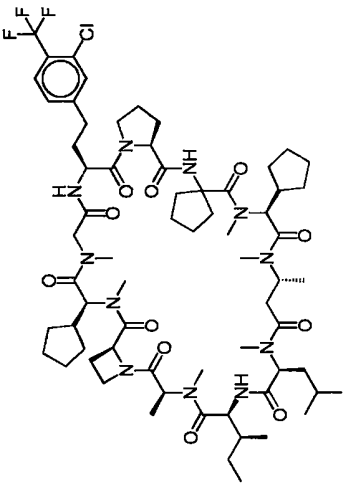
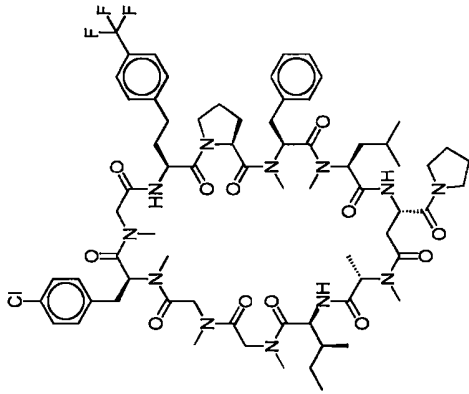
[5436]

	
1039	1041
	
1038	1040

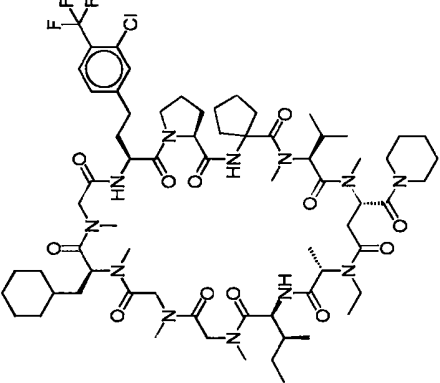
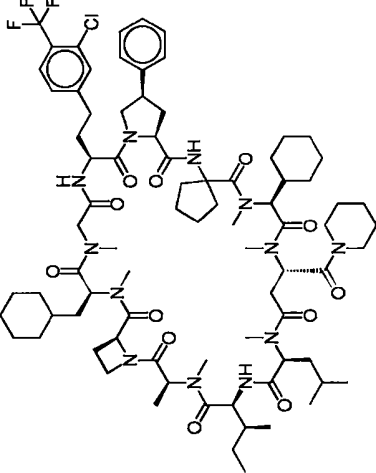
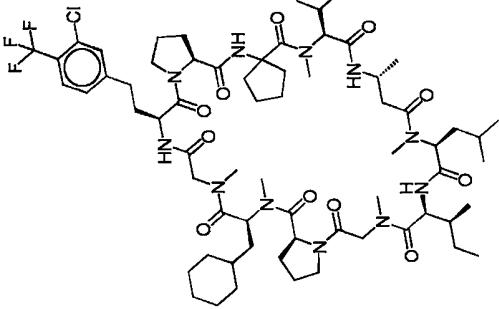
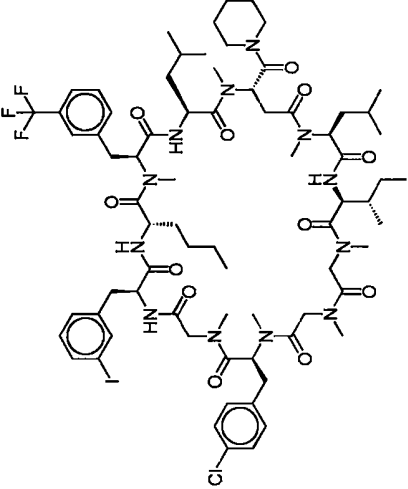
	
1043	1045
	
1042	1044

[5437]

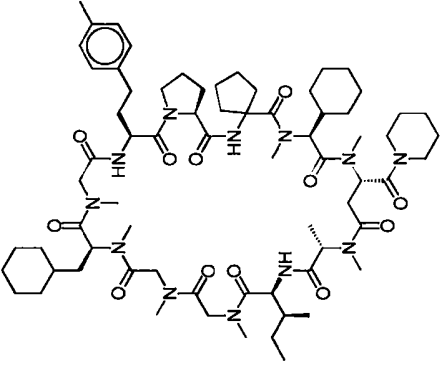
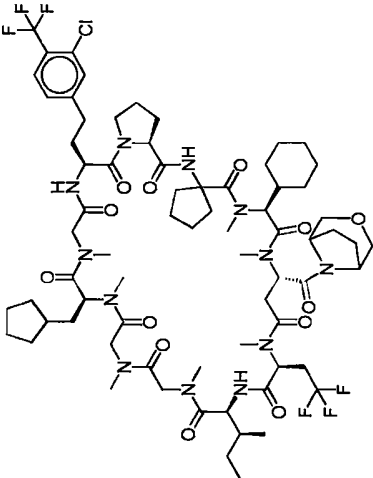
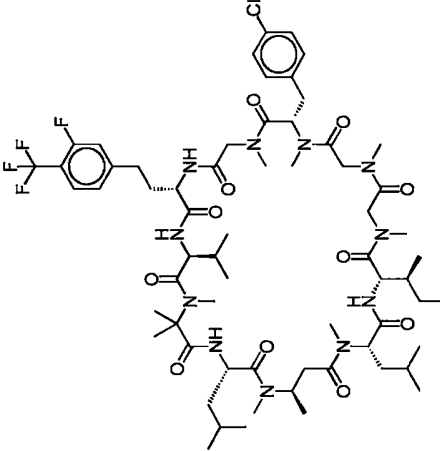
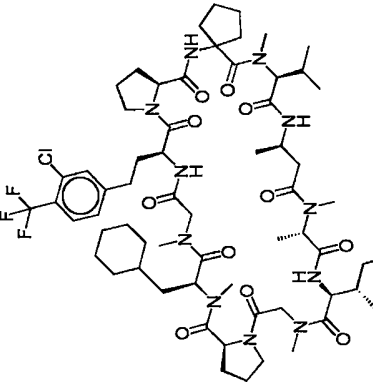
[5438]

	
1047	1049
	
1046	1048

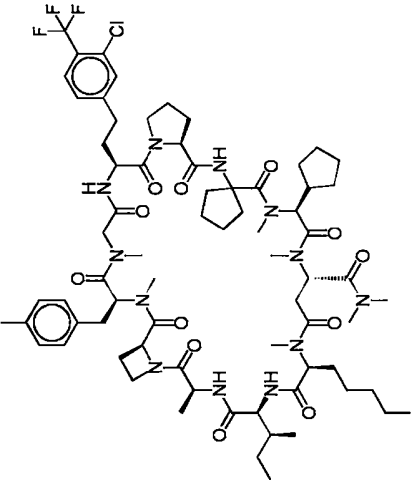
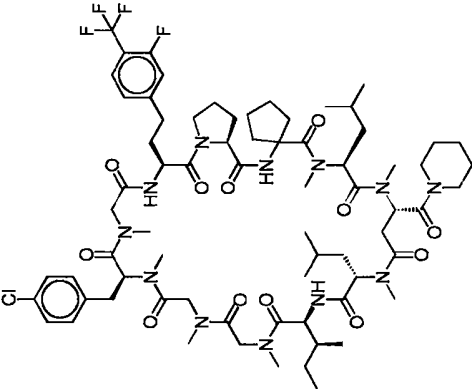
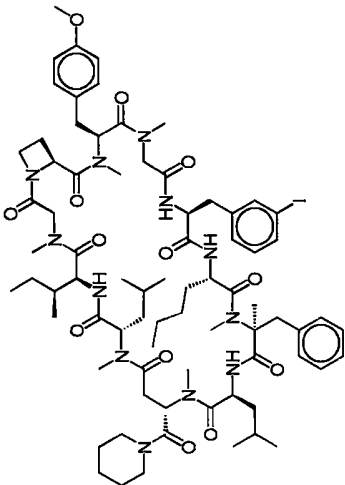
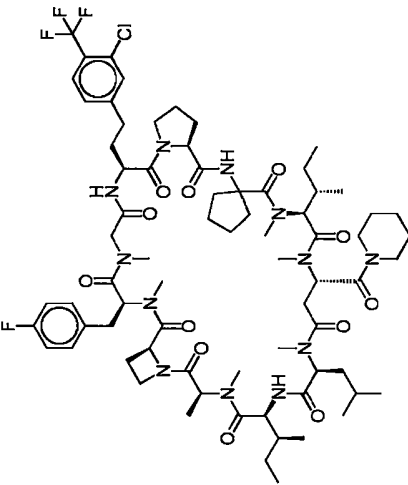
[5439]

	
1051	1053
	
1050	1052

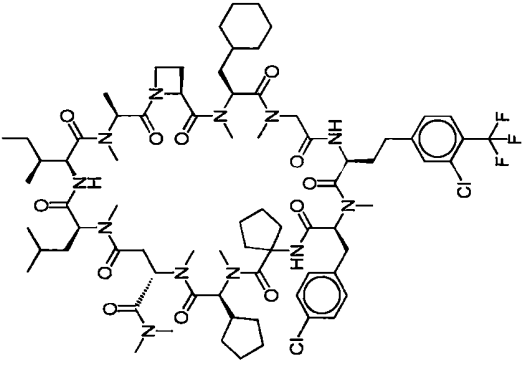
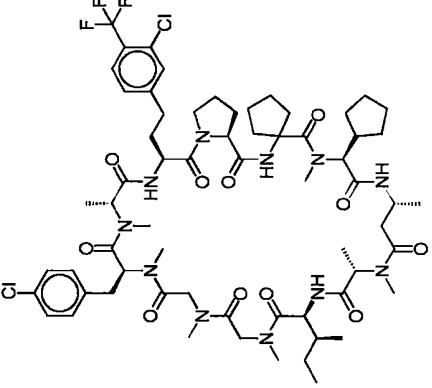
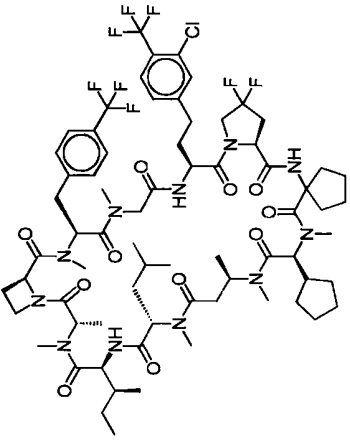
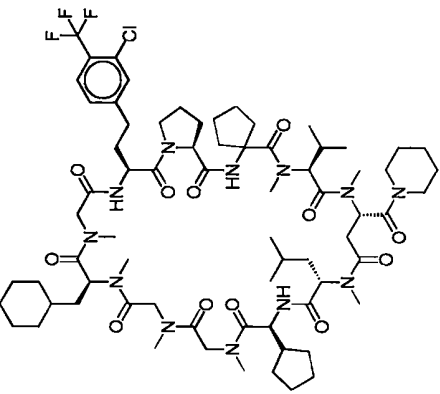
[5440]

	
1055	1057
	
1054	1056

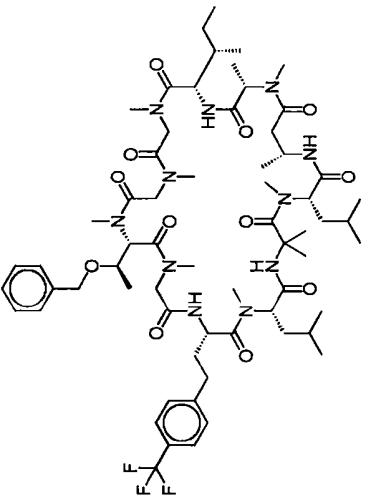
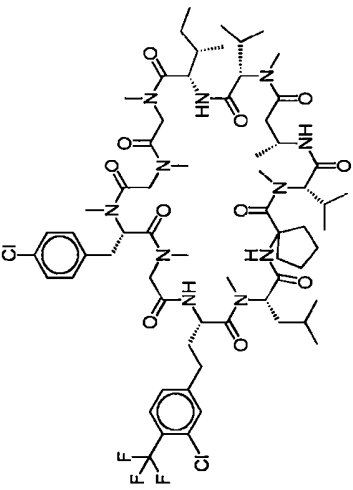
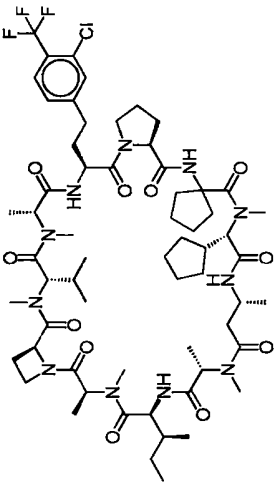
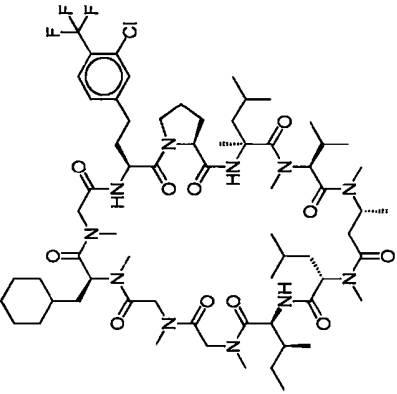
[5441]

	
1059	1061
	
1058	1060

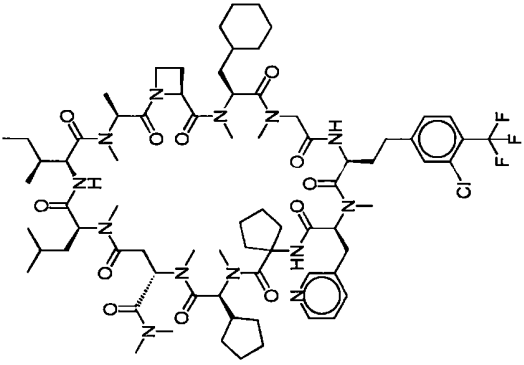
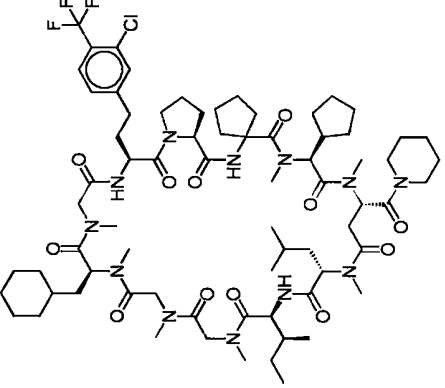
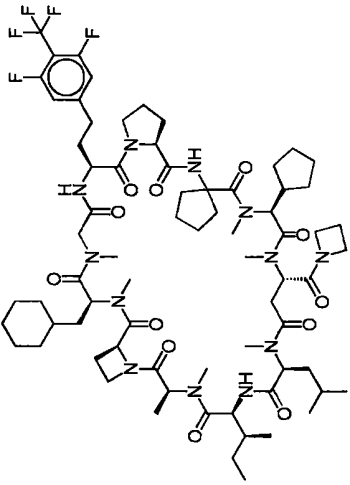
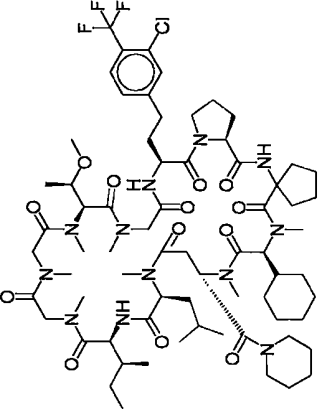
[5442]

	
1063	1065
	
1062	1064

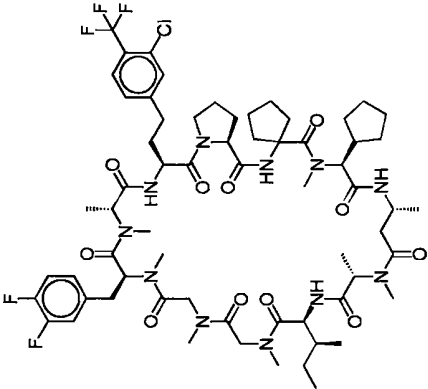
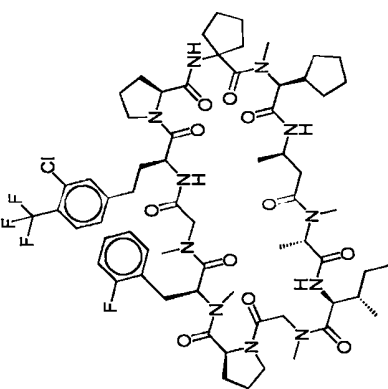
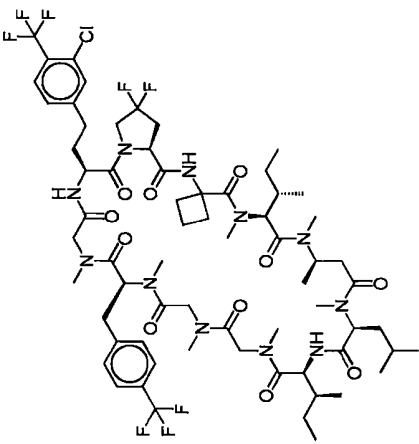
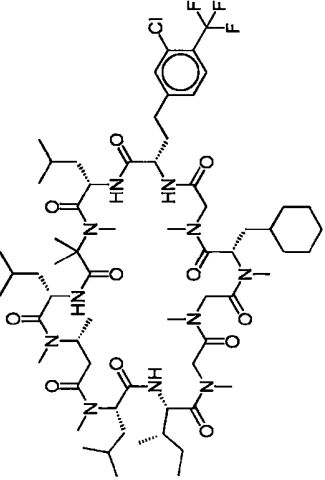
[5443]

	
1067	1069
	
1066	1068

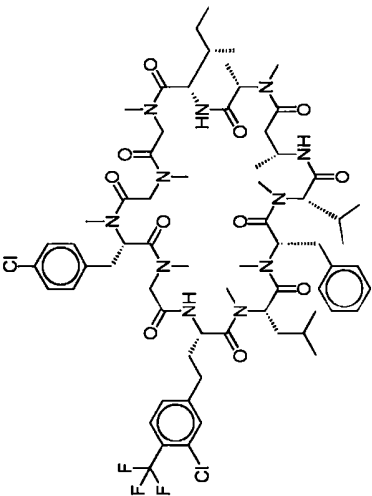
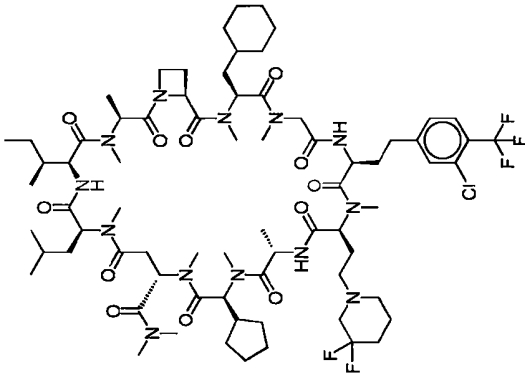
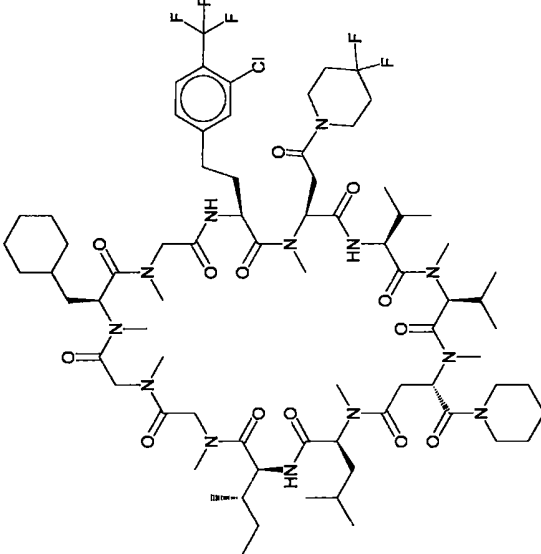
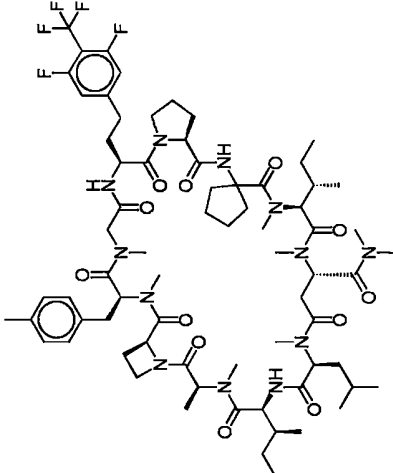
[5444]

	
1071	1073
	
1070	1072

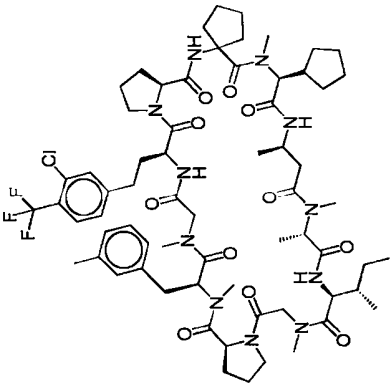
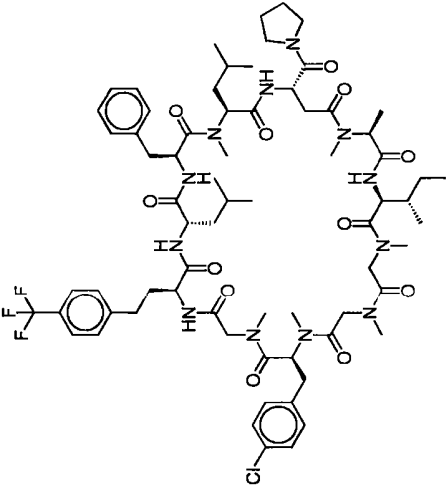
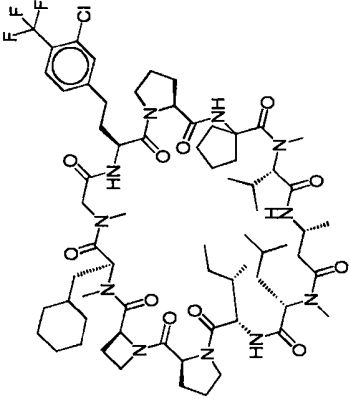
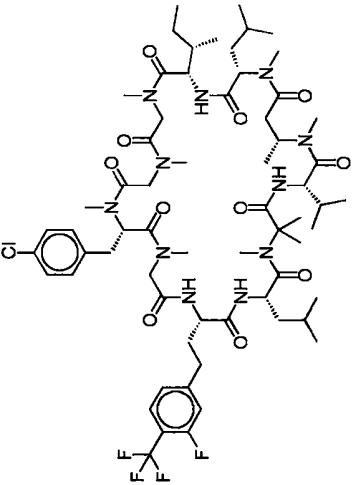
[5445]

	
1075	1077
	
1074	1076

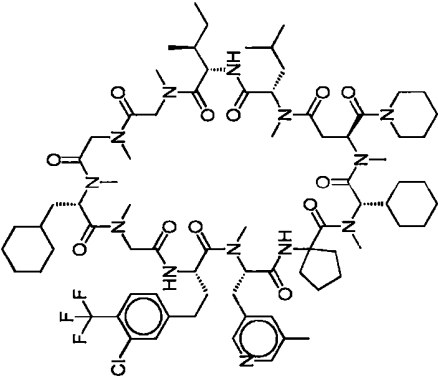
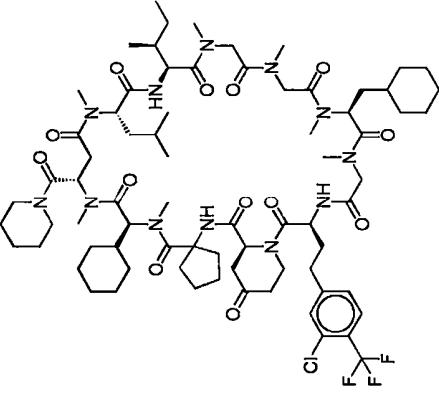
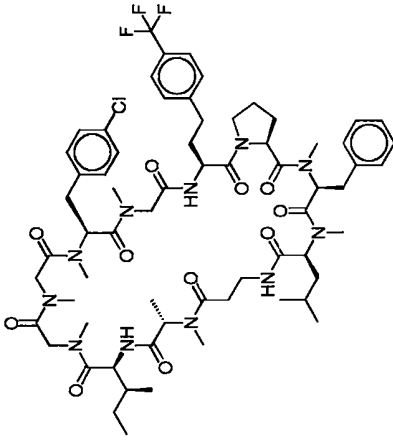
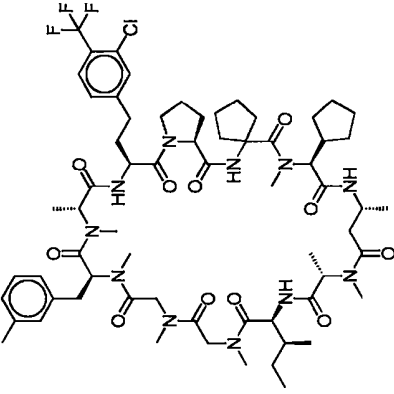
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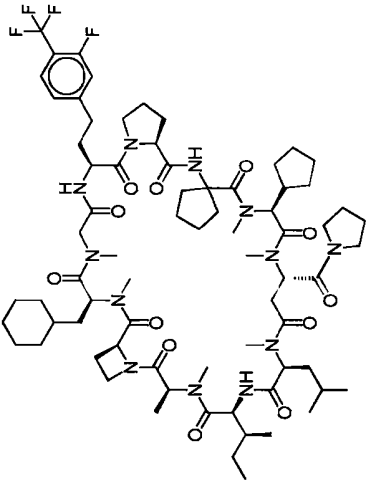
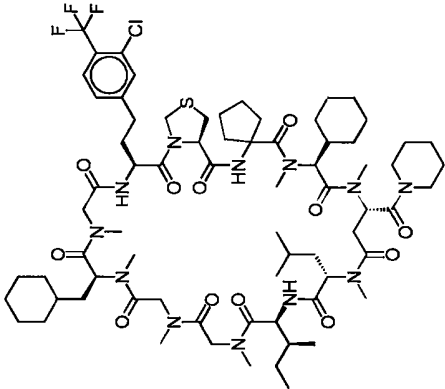
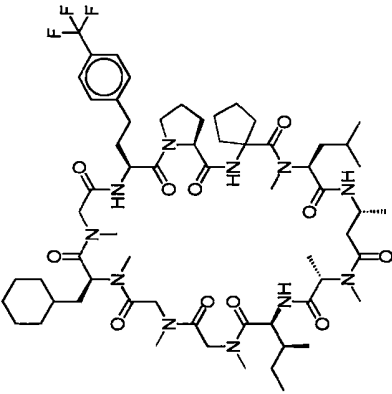
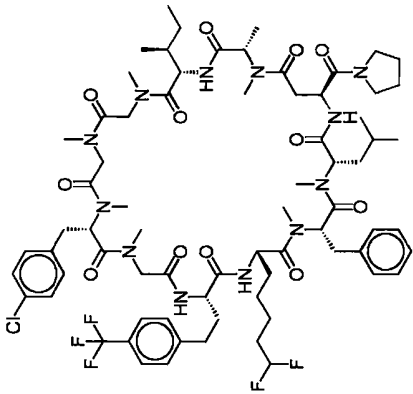
	
1079	1081
	
1078	1080

[5447]

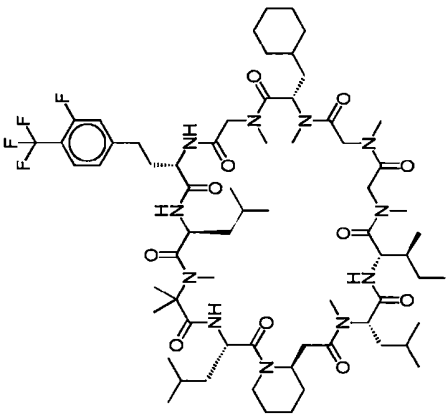
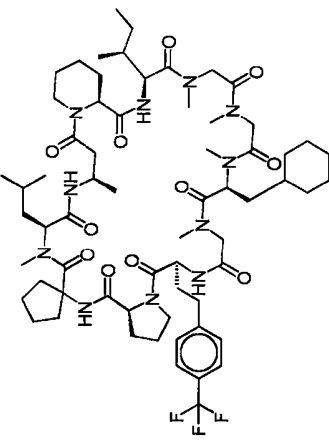
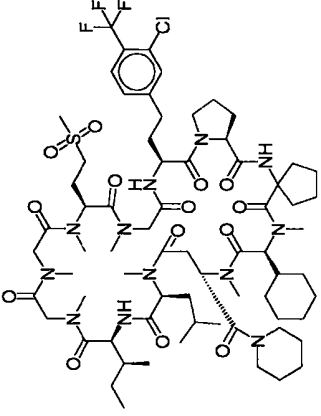
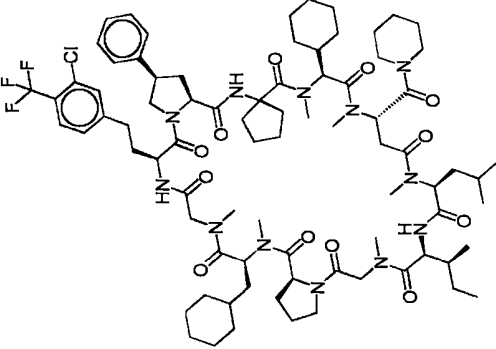
	
1083	1085
	
1082	1084

[5448]

	
1087	1089
	
1086	1088

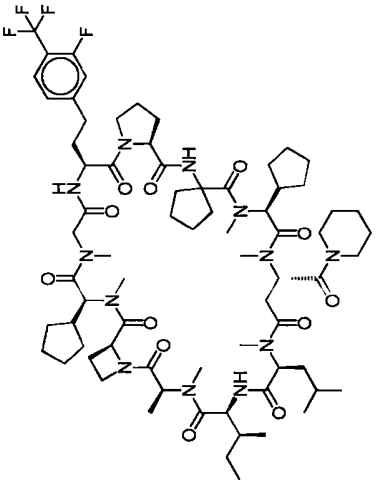
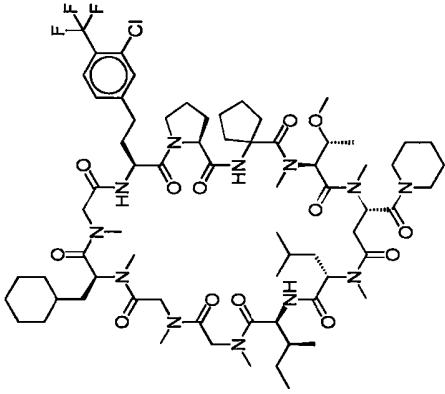
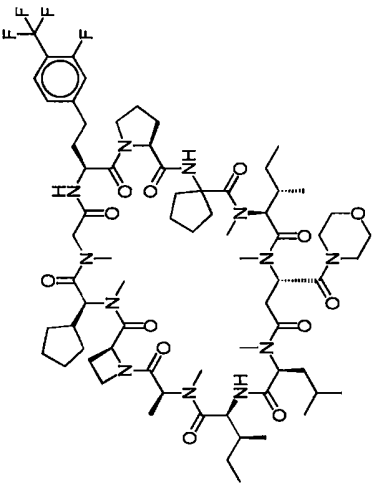
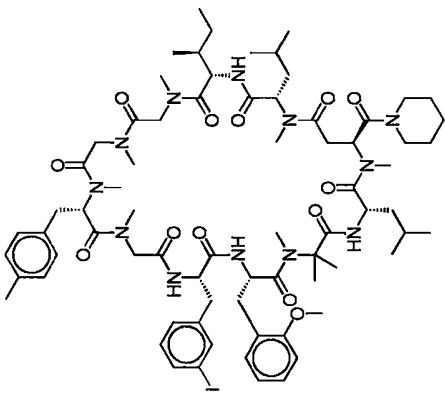
	
1091	1093
	
1090	1092

[5449]

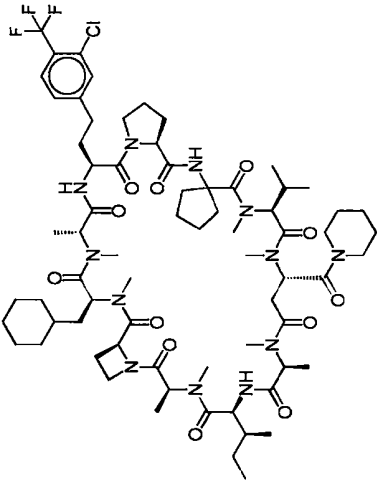
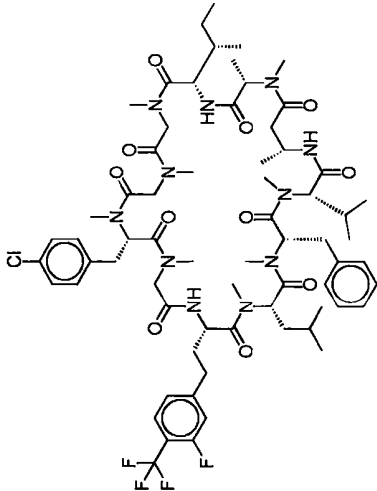
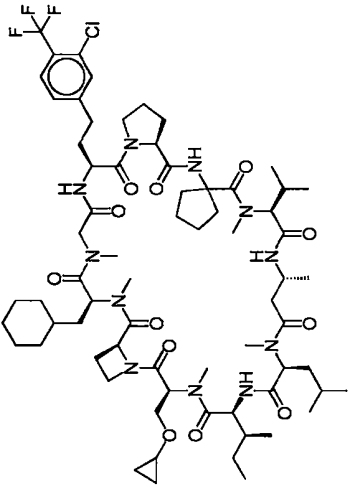
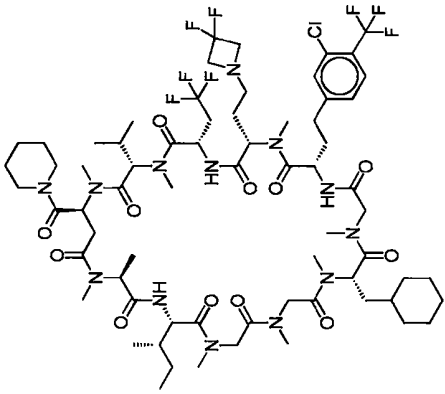
	
1095	1097
	
1094	1096

[5450]

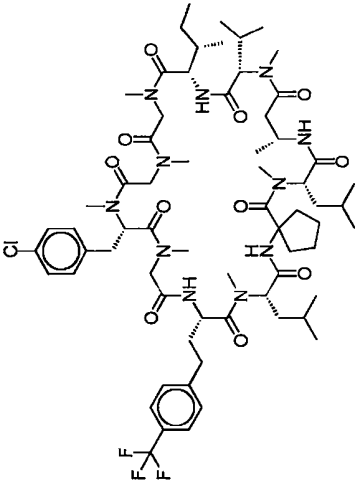
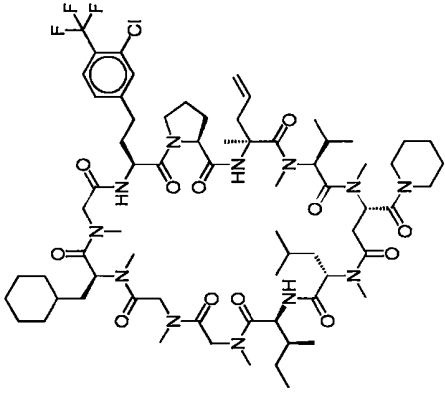
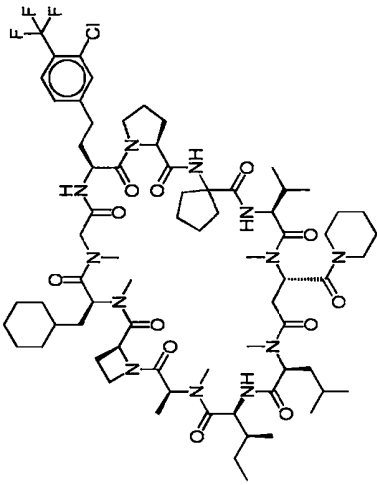
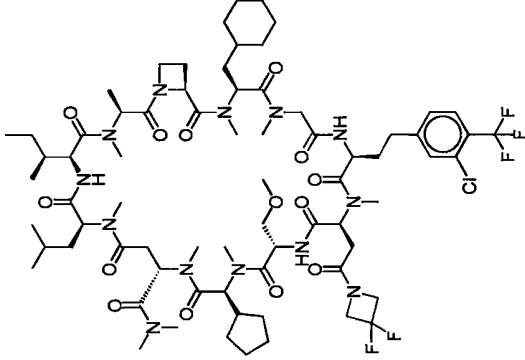
[5451]

	
1099	1101
	
1098	1100

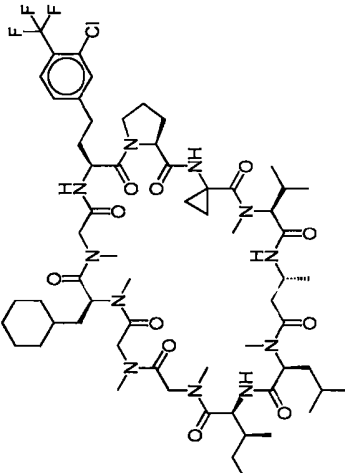
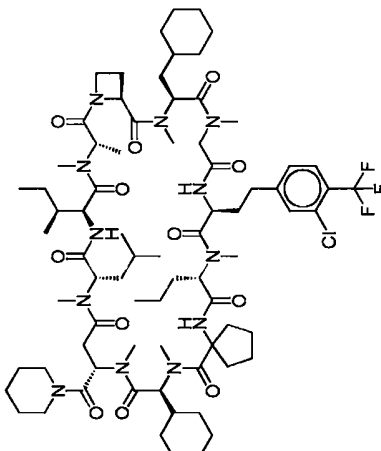
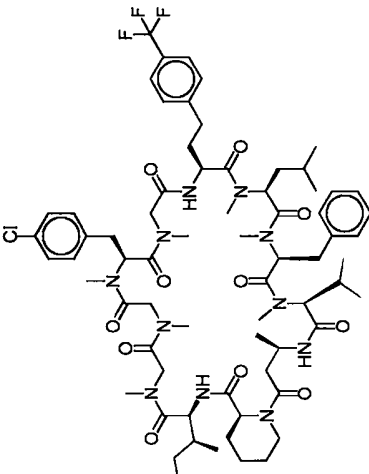
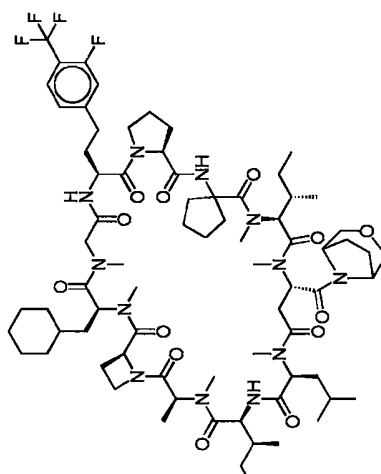
[5452]

	
1103	1105
	
1102	1104

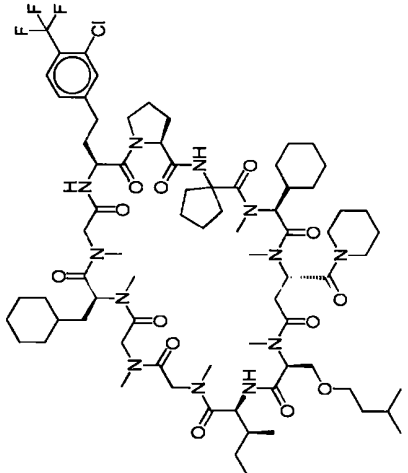
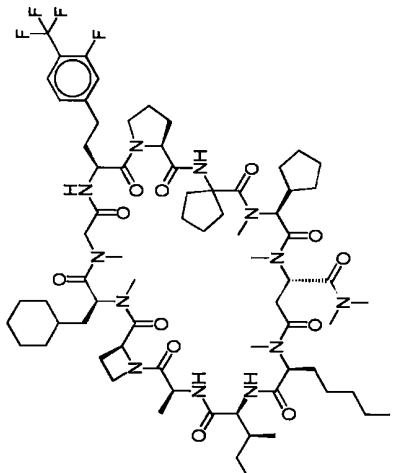
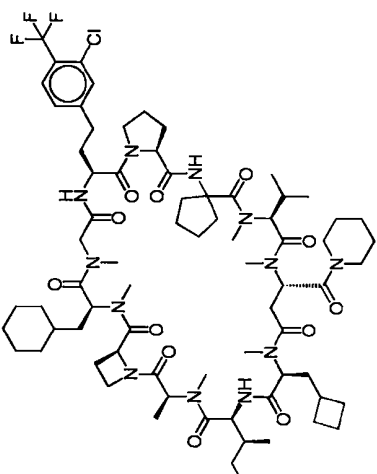
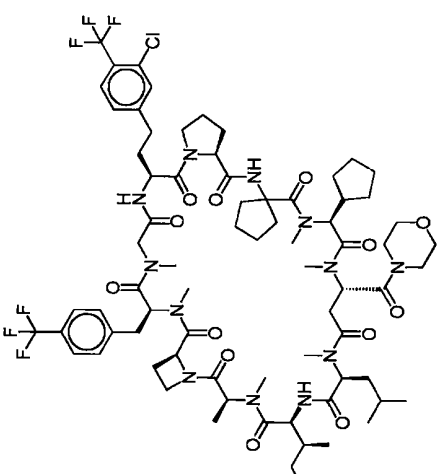
[5453]

	
1107	1109
	
1106	1108

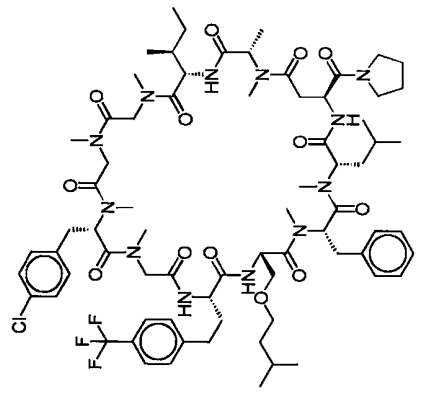
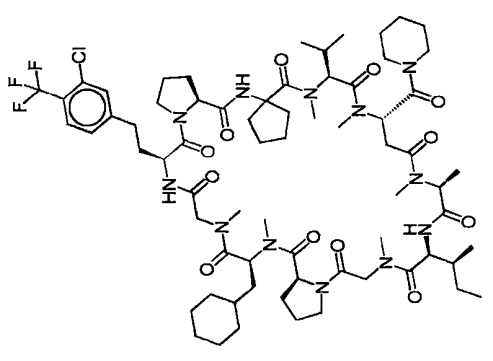
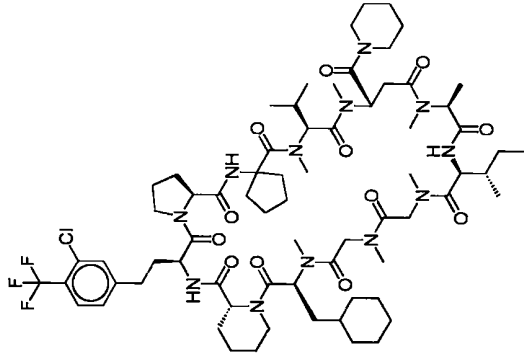
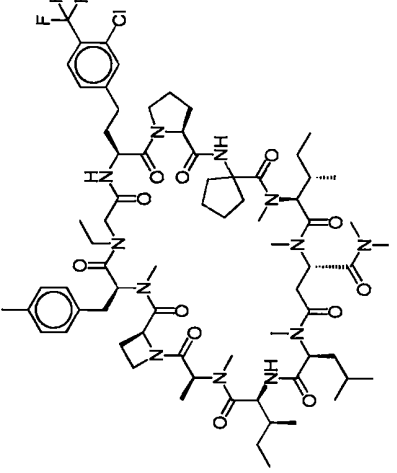
[5454]

	
1111	1113
	
1110	1112

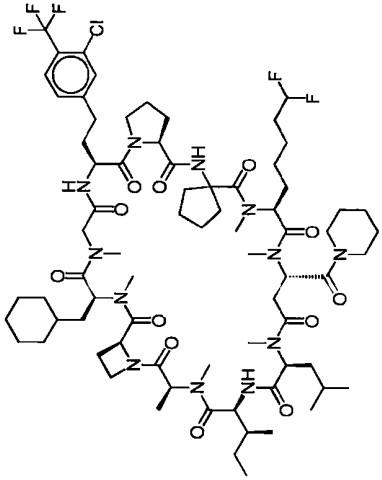
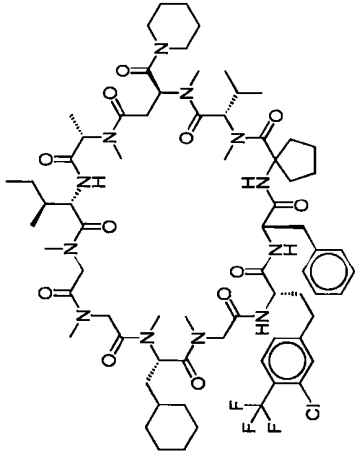
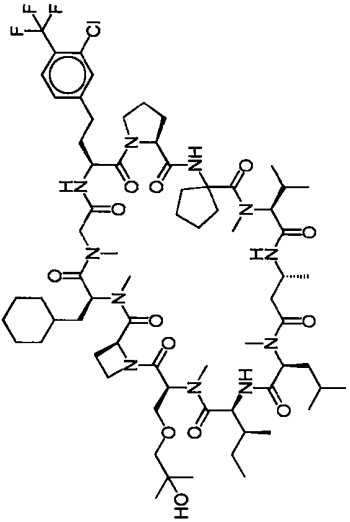
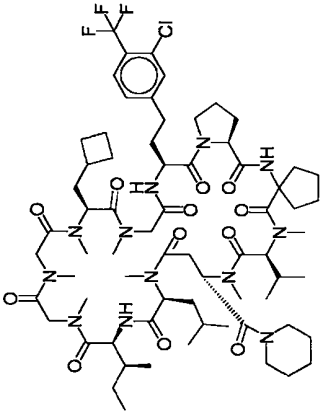
[5455]

	
1115	1117
	
1114	1116

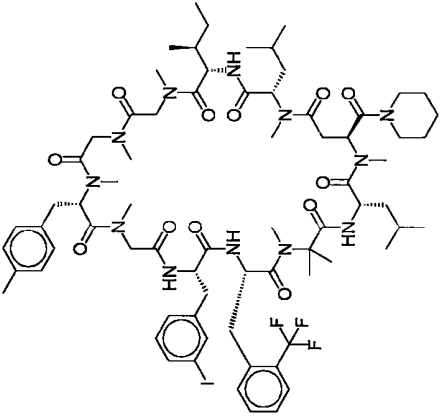
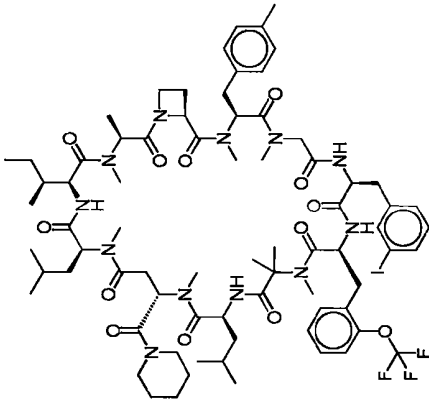
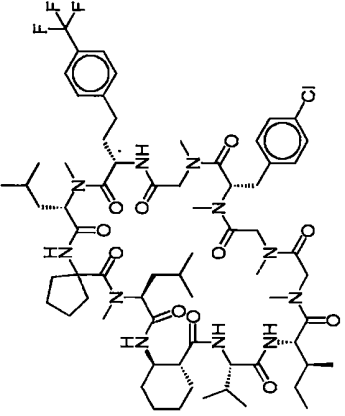
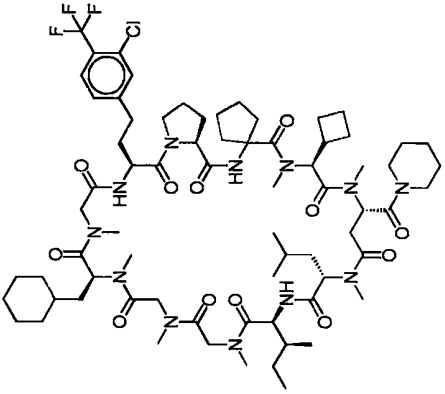
[5456]

	
1119	1121
	
1118	1120

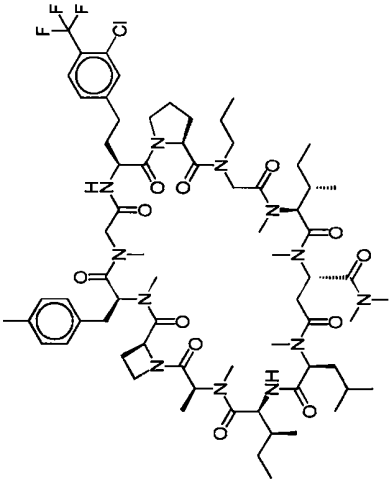
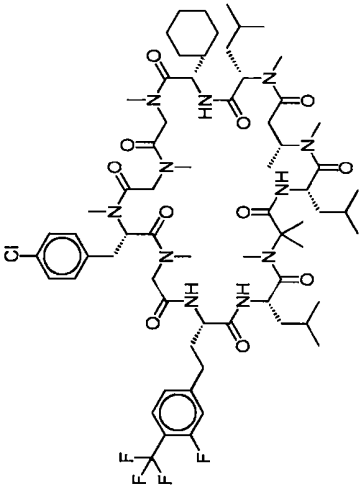
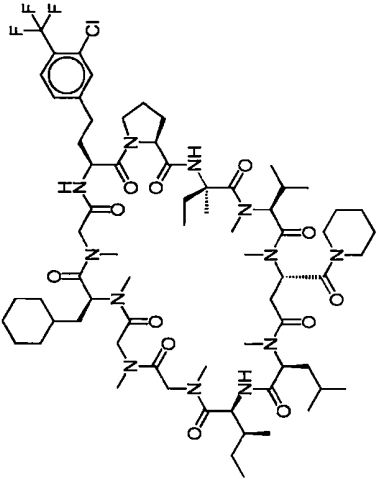
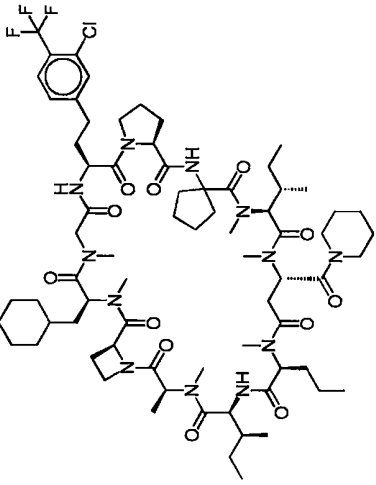
[5457]

	
1123	1125
	
1122	1124

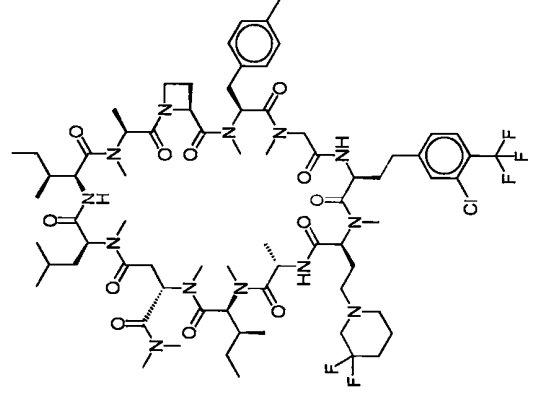
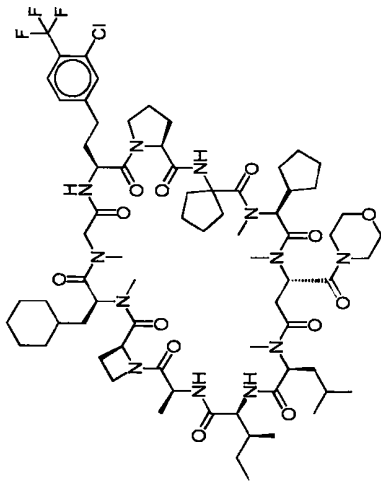
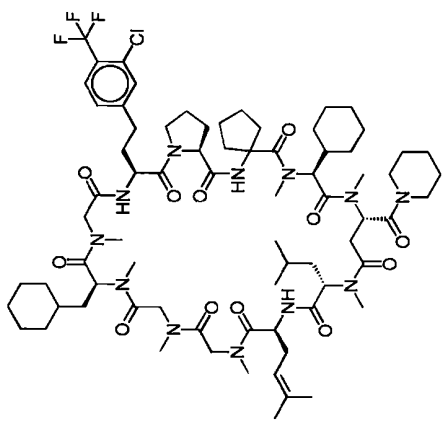
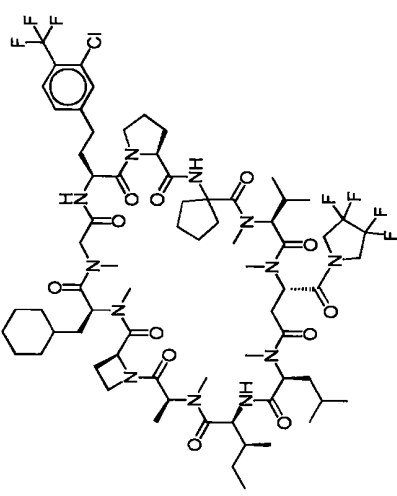
[5458]

	
1127	1129
	
1126	1128

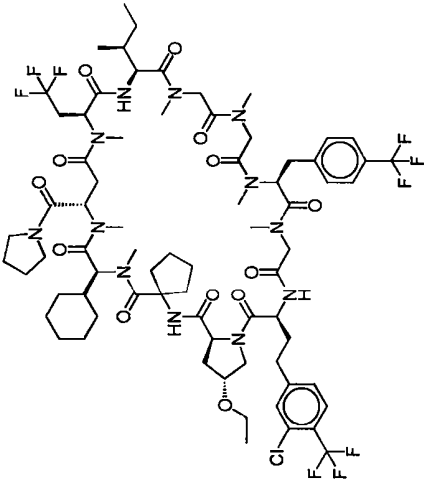
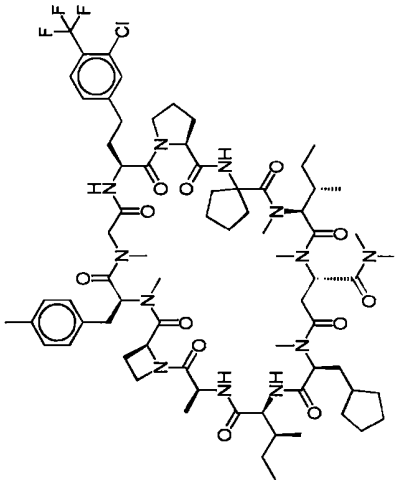
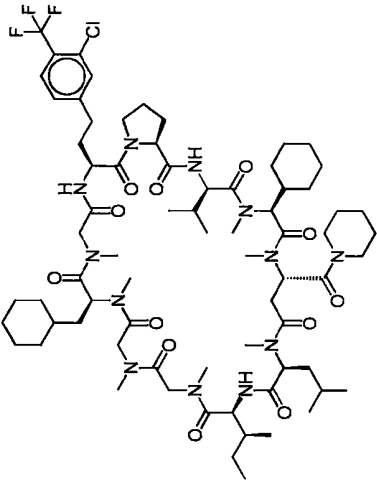
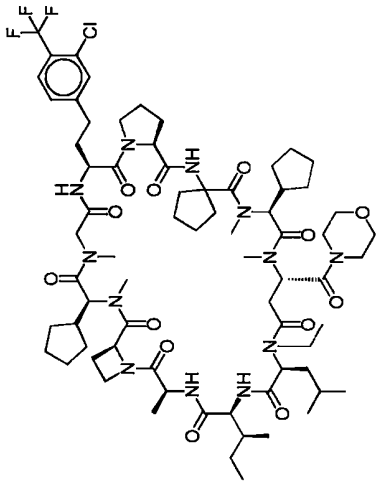
[5459]

	
1131	1133
	
1130	1132

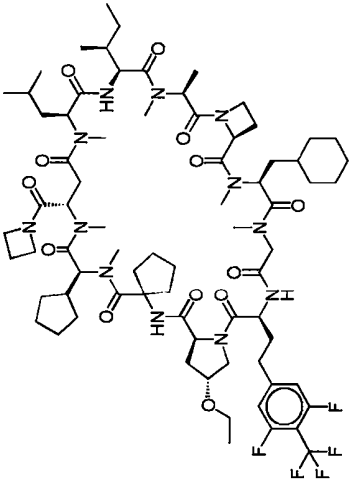
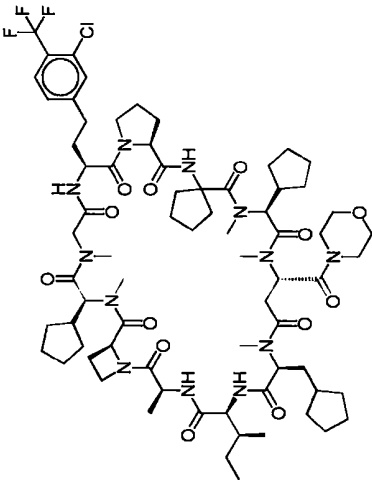
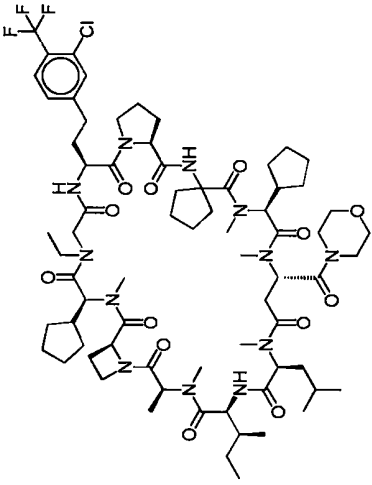
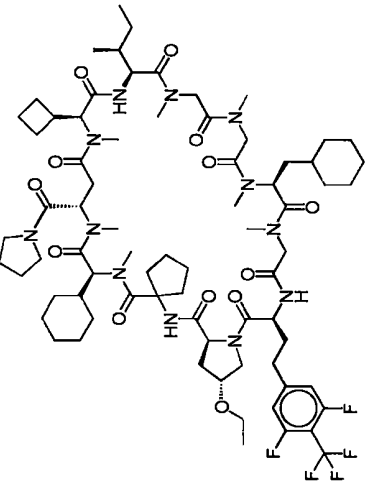
[5460]

	
1135	1137
	
1134	1136

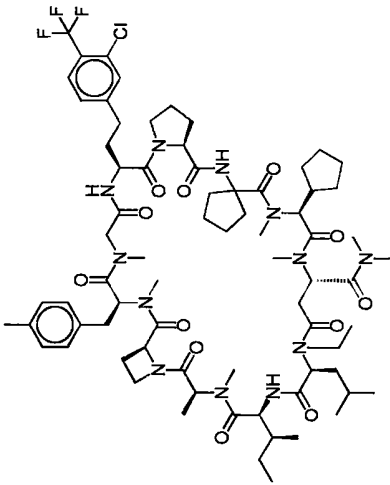
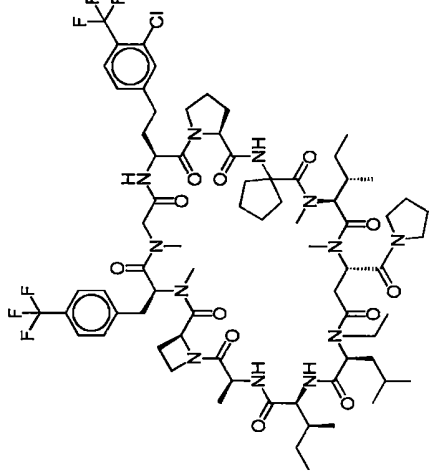
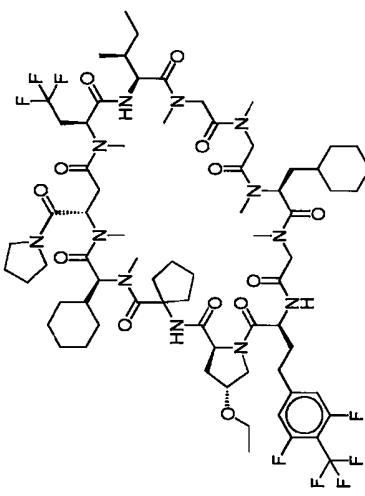
[5461]

	
1139	1141
	
1138	1140

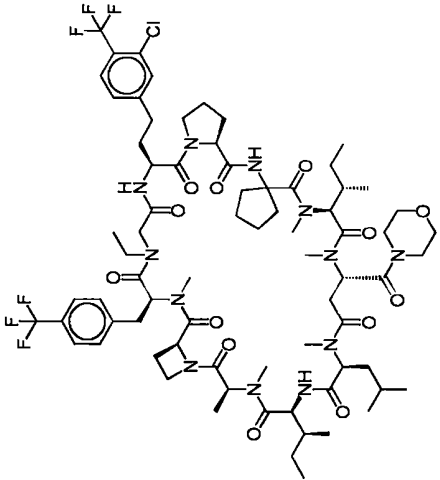
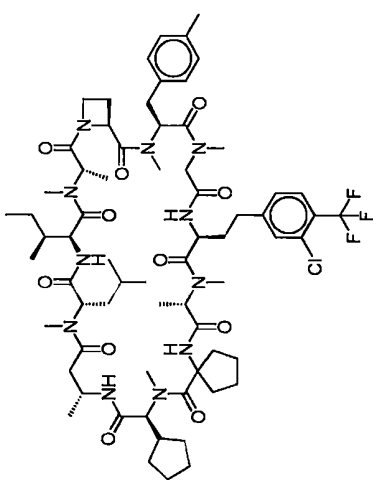
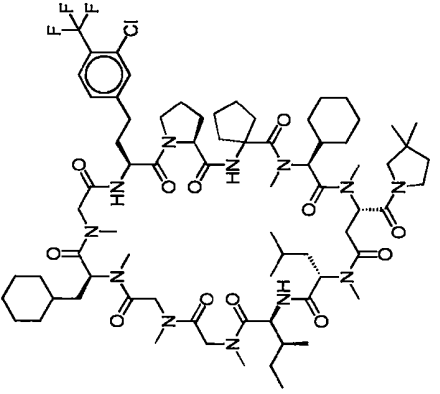
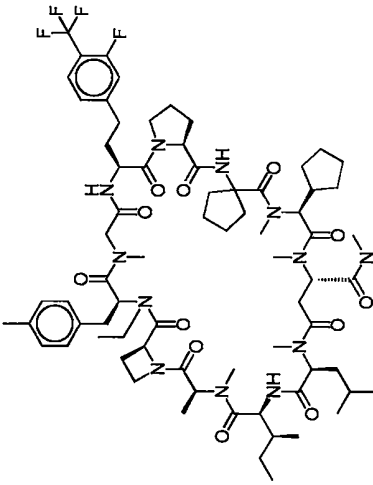
[5462]

	
1143	1145
	
1142	1144

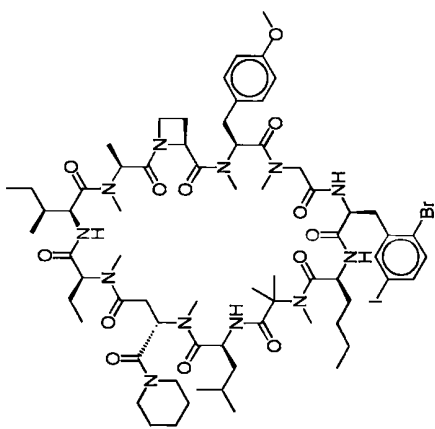
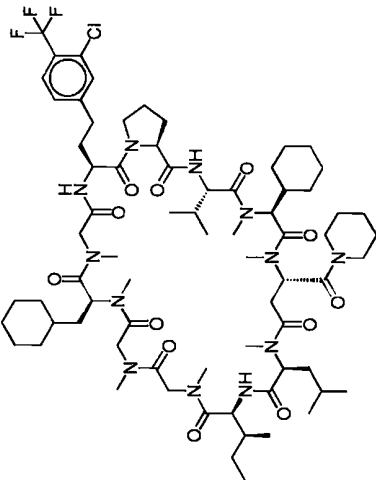
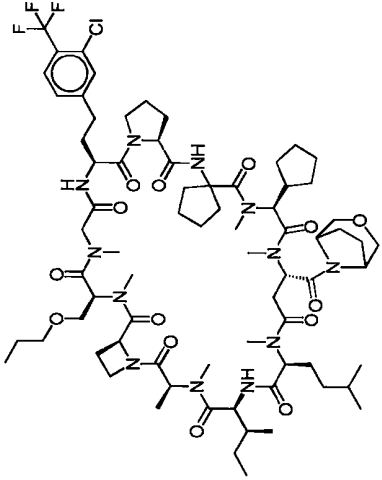
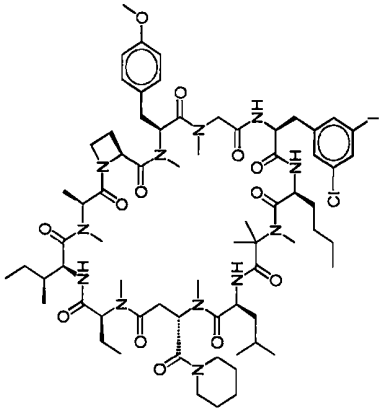
[5463]

	
1148	
	
1146	1149

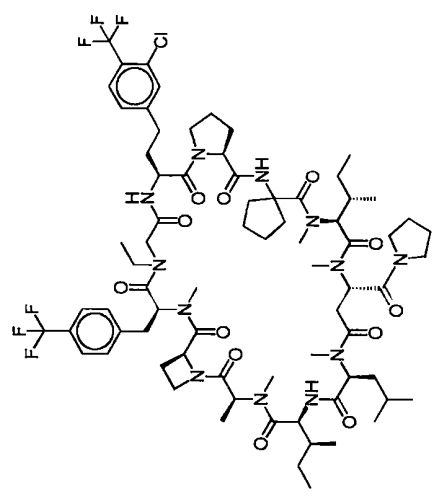
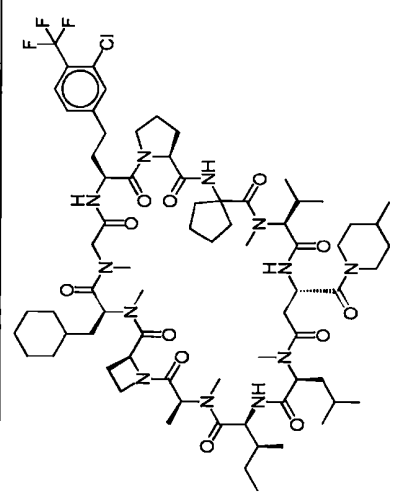
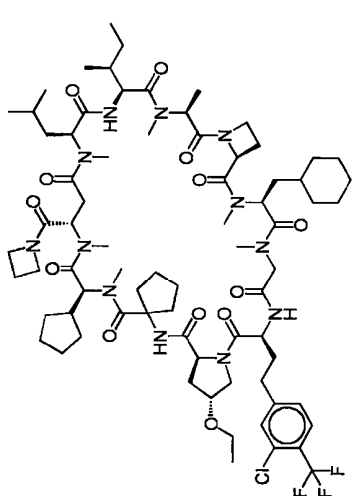
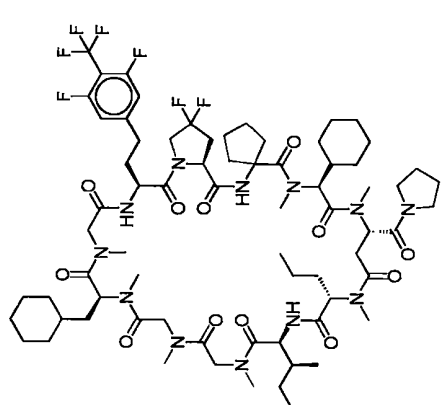
[5464]

	
1151	1153
	
1150	1152

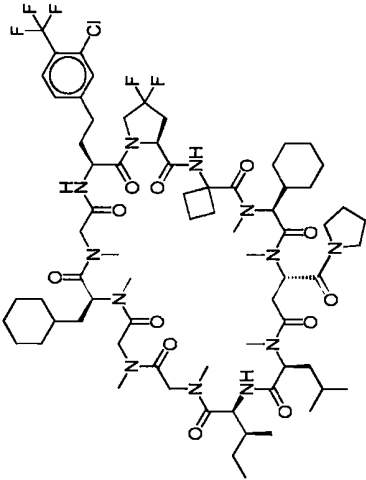
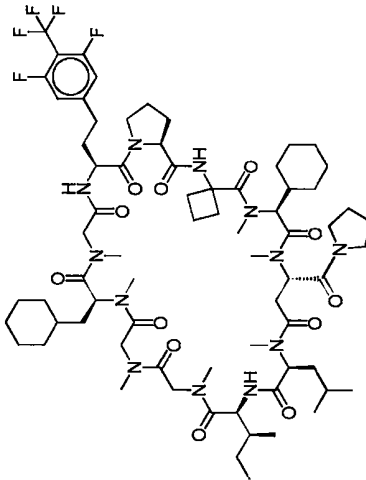
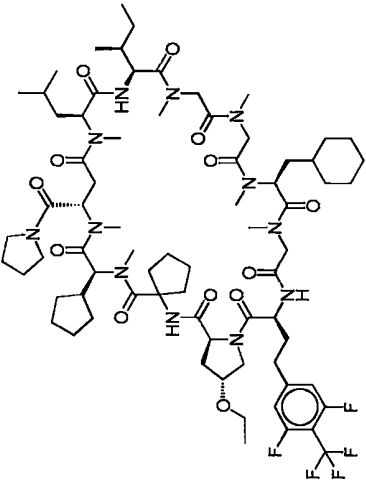
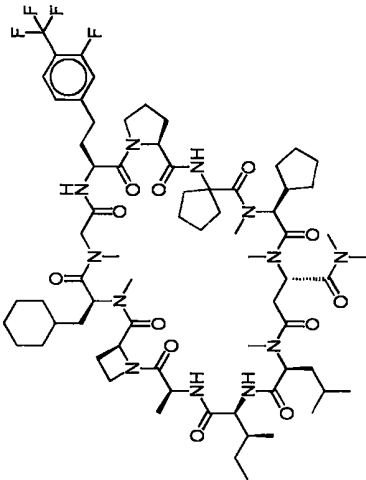
[5465]

	
1155	1157
	
1154	1156

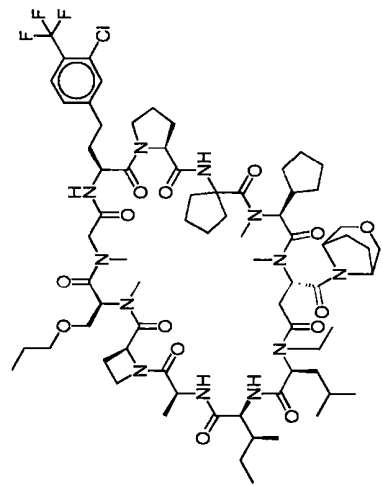
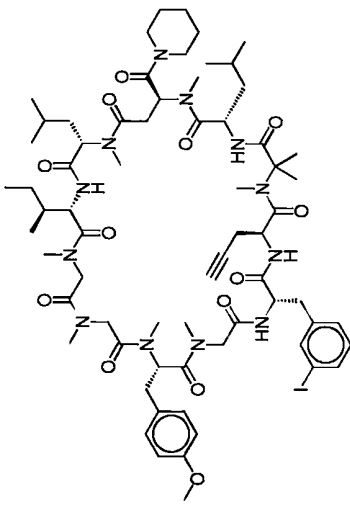
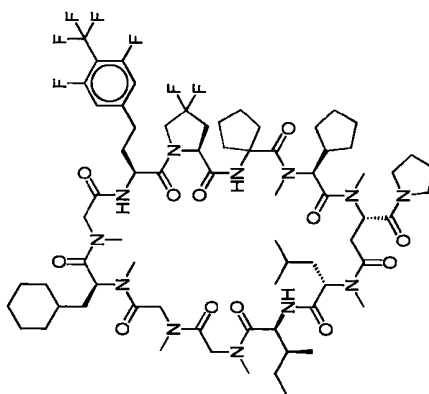
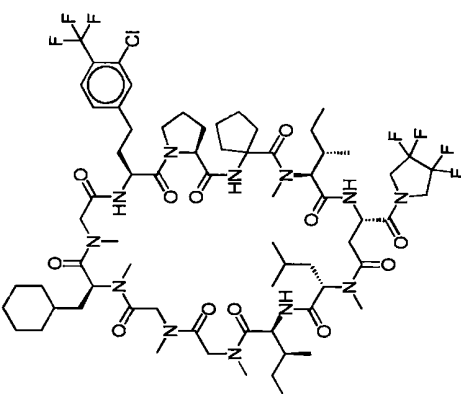
[5466]

	
1159	1161
	
1158	1160

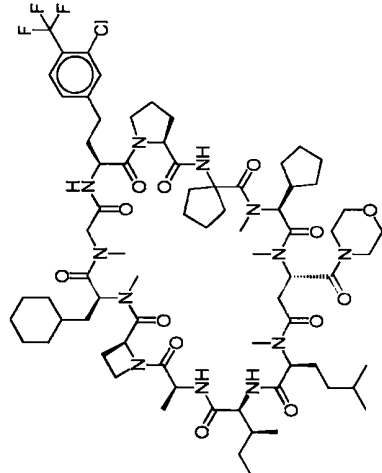
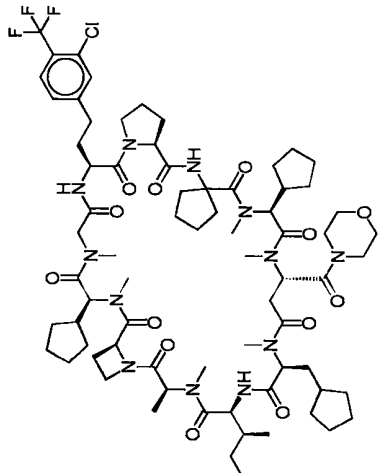
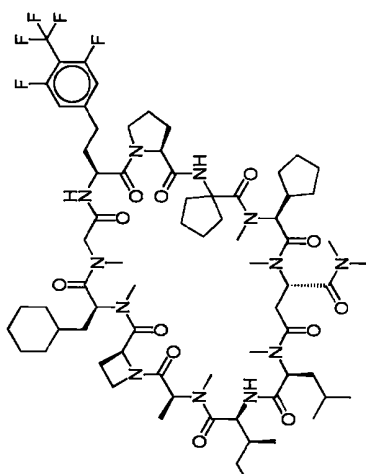
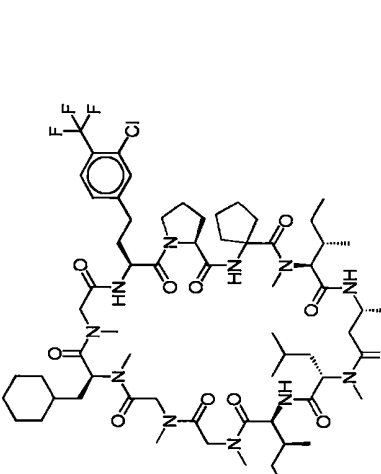
[5467]

	
1163	1165
	
1162	1164

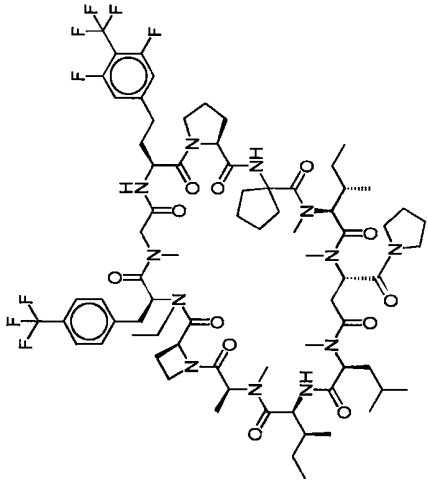
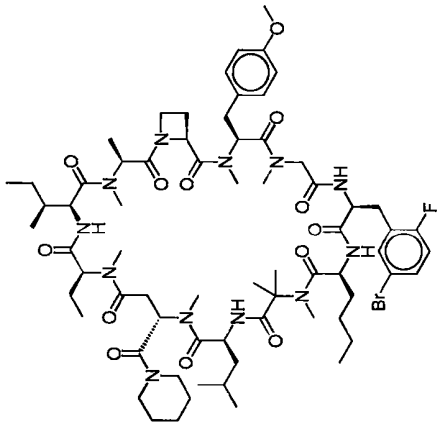
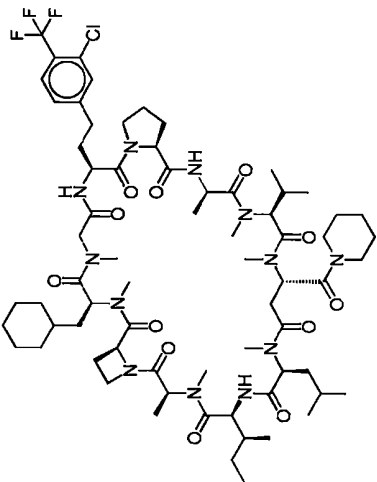
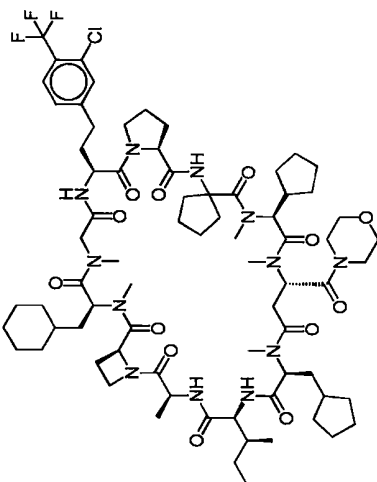
[5468]

	
1167	1169
	
1166	1168

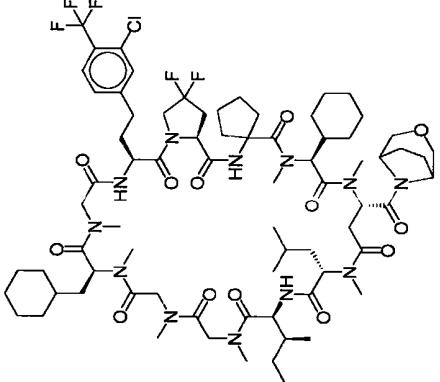
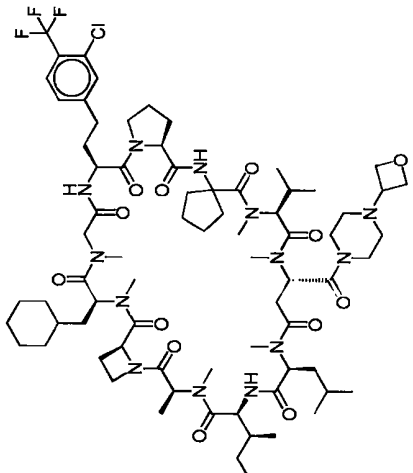
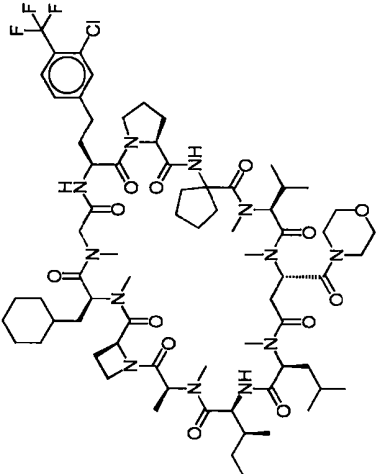
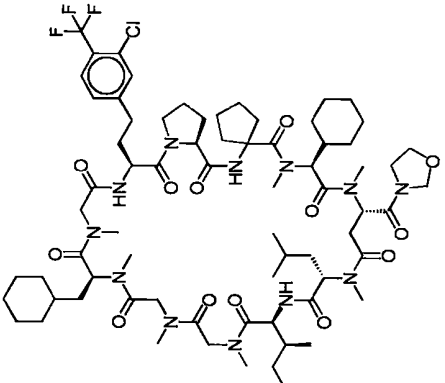
[5469]

	
1171	1173
	
1170	1172

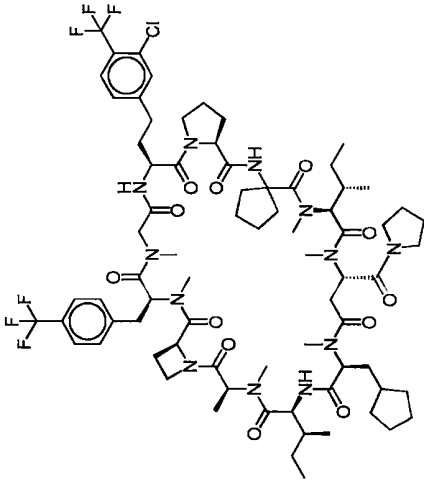
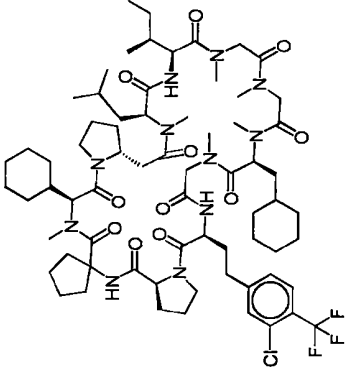
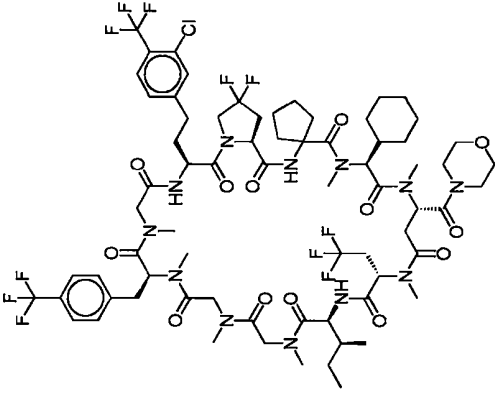
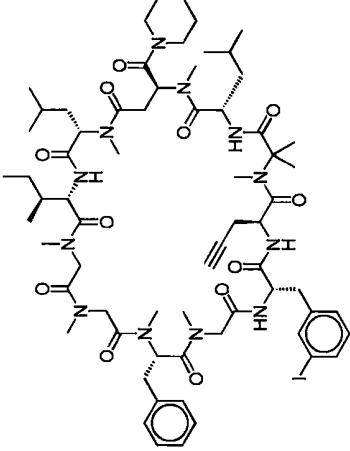
[5470]

	
1175	1177
	
1174	1176

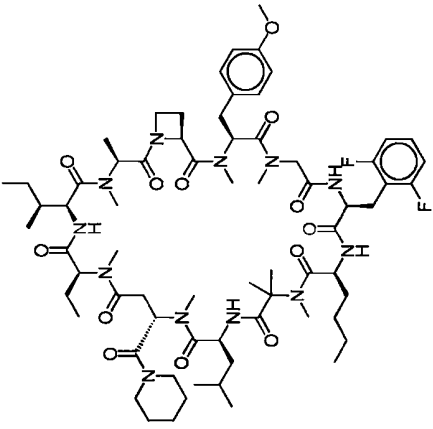
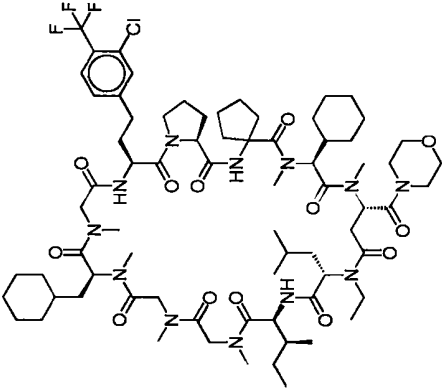
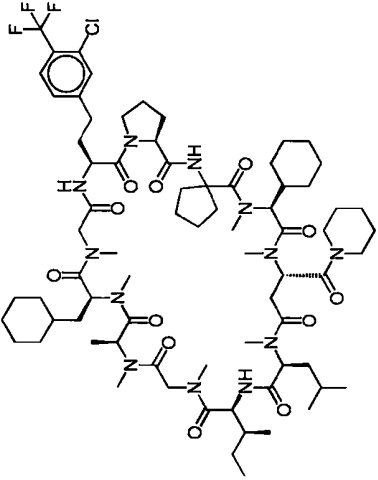
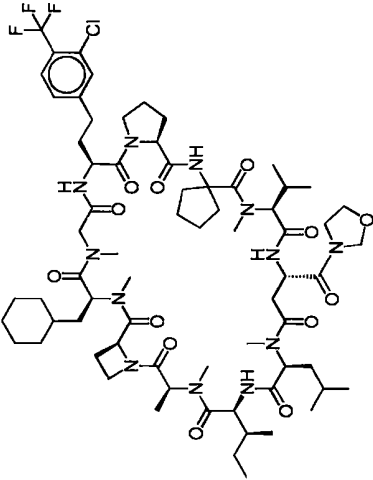
[5471]

	
1179	1181
	
1178	1180

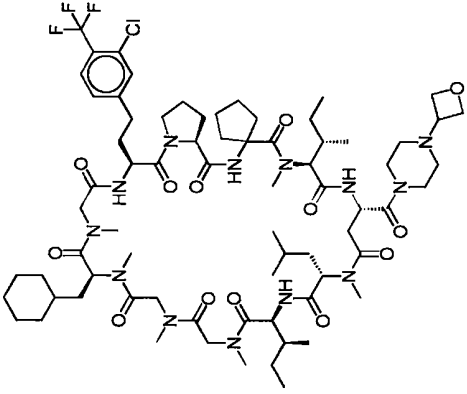
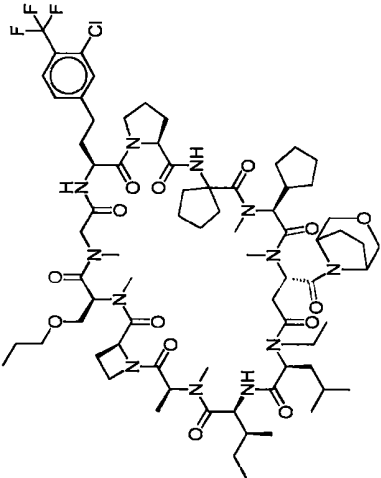
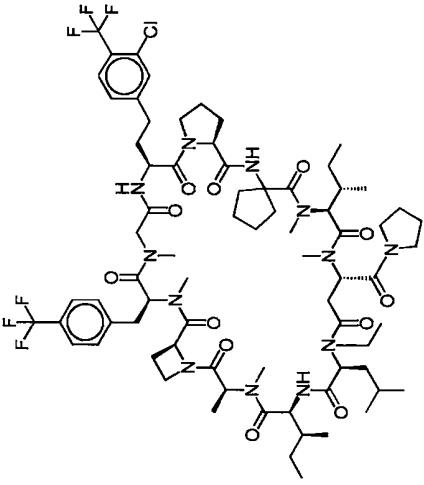
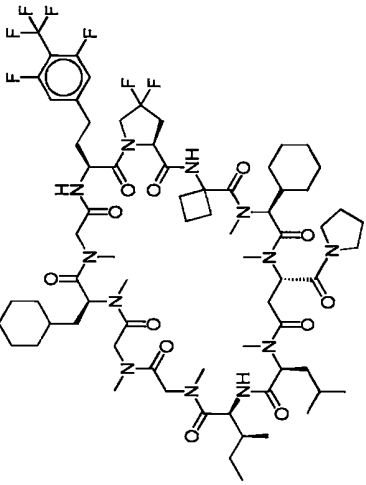
[5472]

	
1183	1185
	
1182	1184

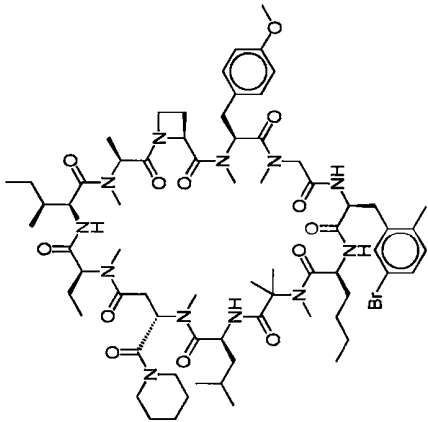
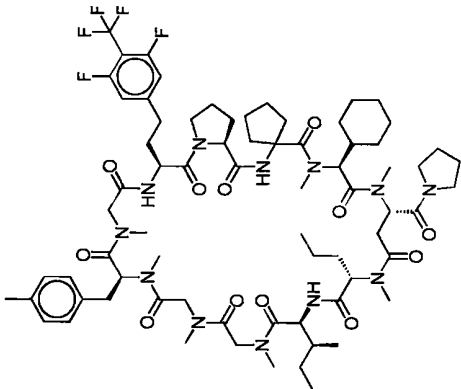
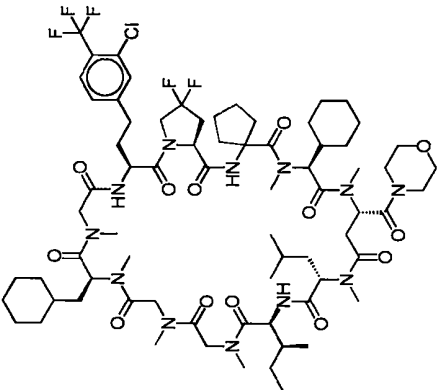
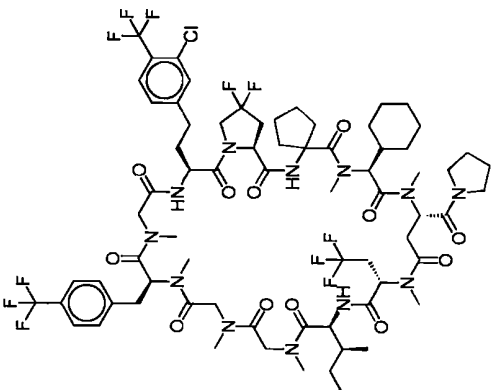
[5473]

	
1187	1189
	
1186	1188

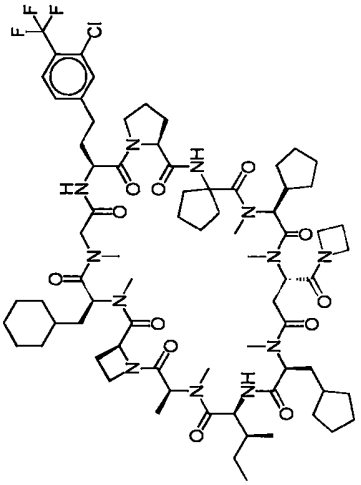
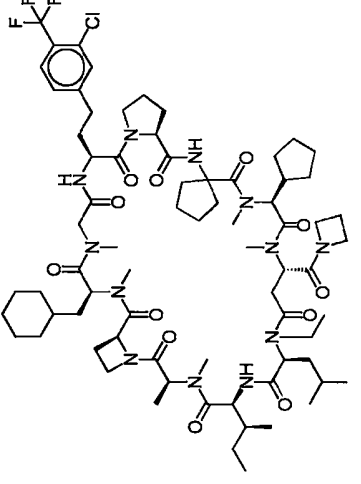
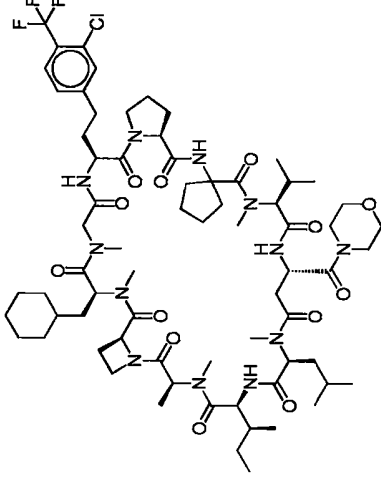
[5474]

	
1191	1193
	
1190	1192

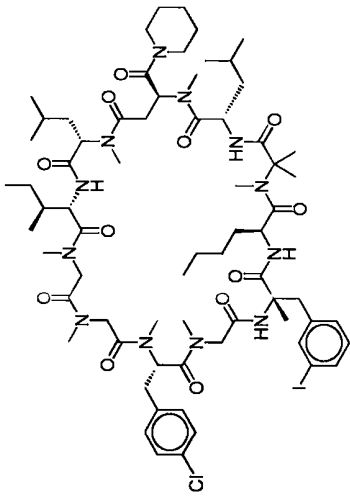
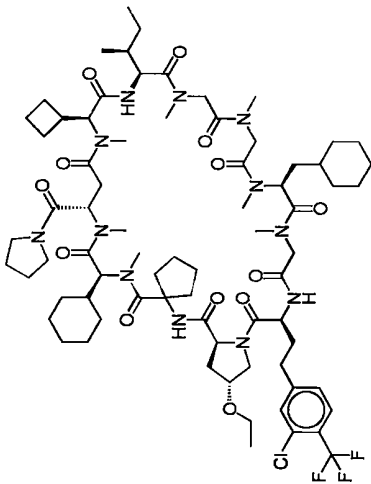
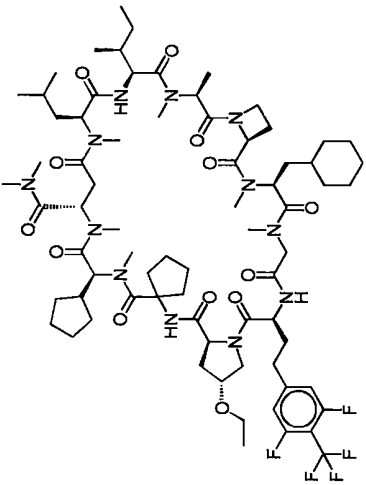
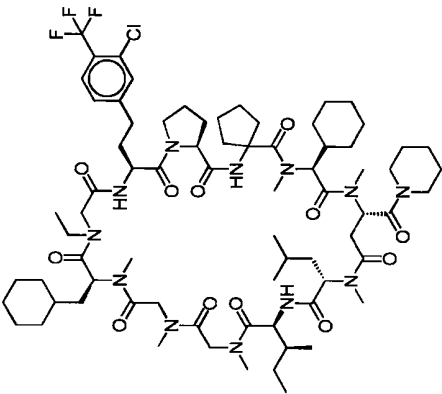
[5475]

	
1195	1197
	
1194	1196

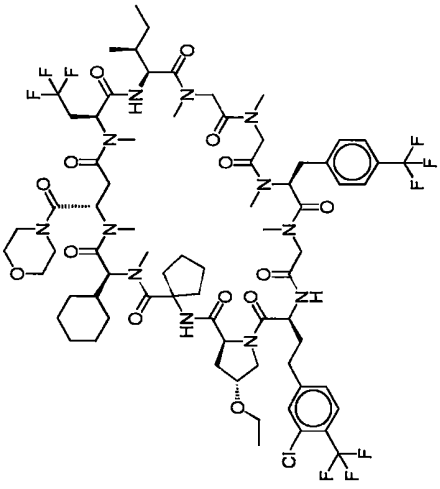
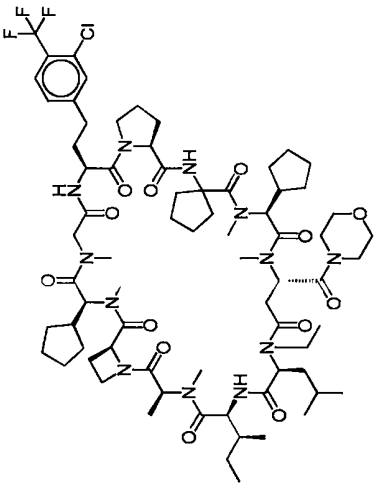
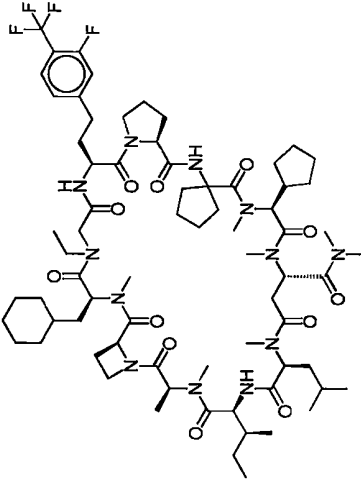
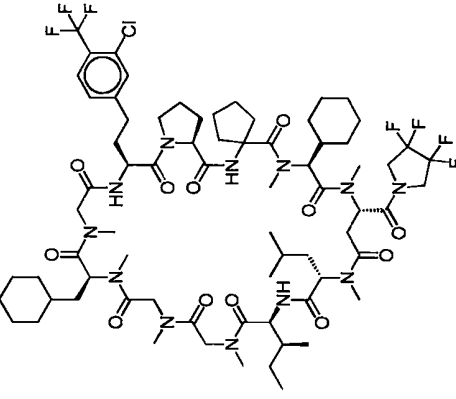
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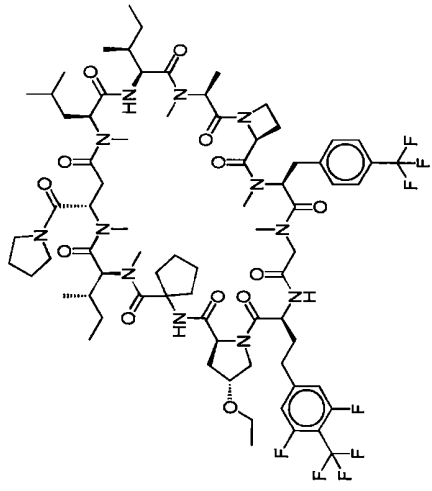
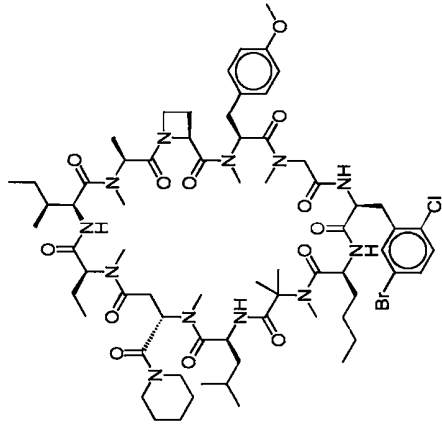
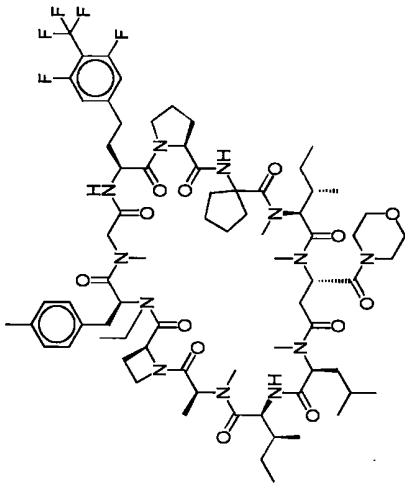
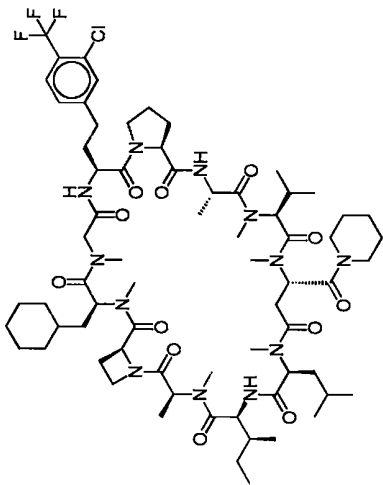
	
1199	
	
1198	1200

[5477]

	
1202	1204
	
1201	1203

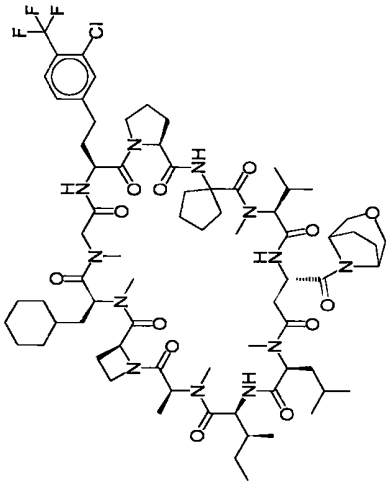
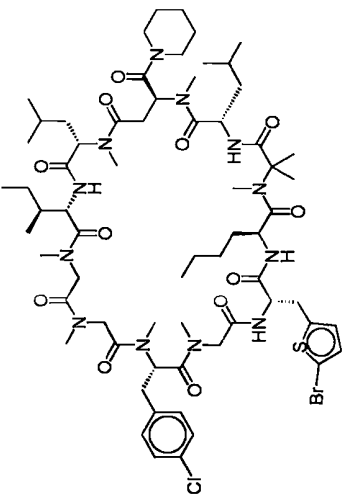
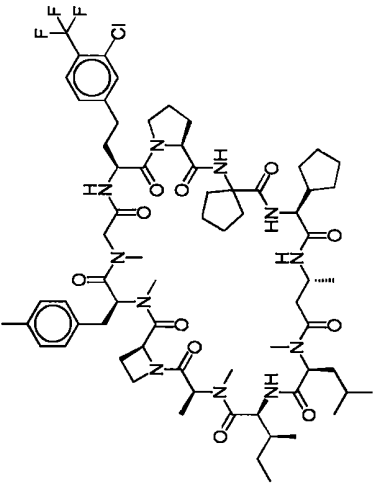
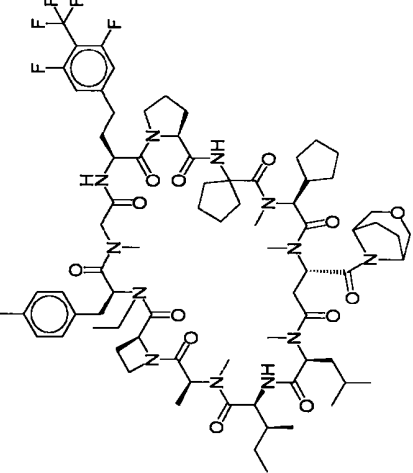
[5478]

	
1206	1208
	
1205	1207

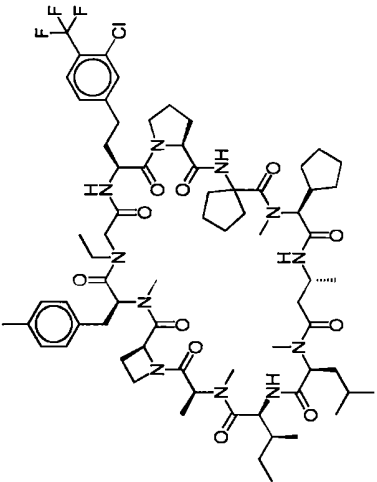
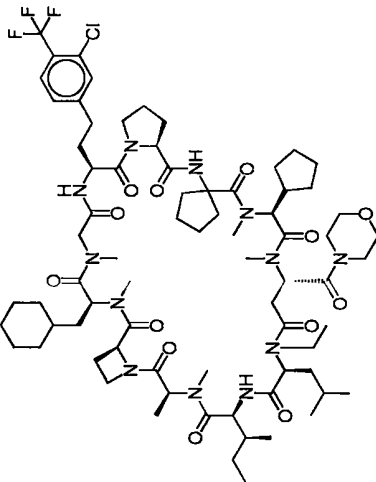
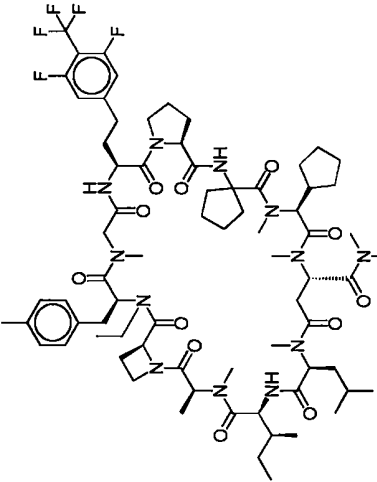
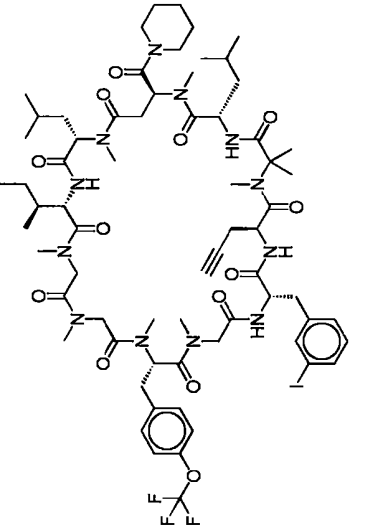
	
1210	1212
	
1209	1211

[5479]

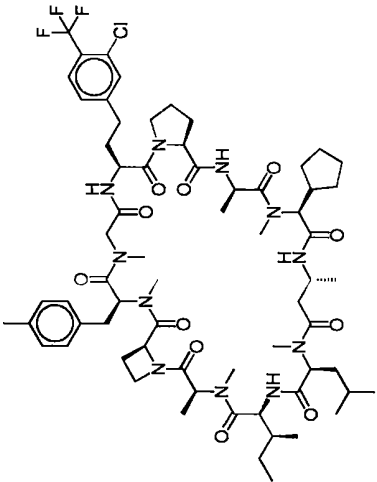
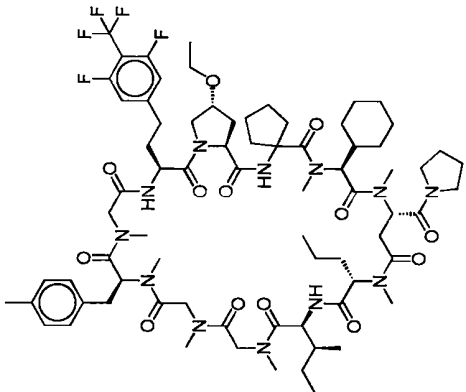
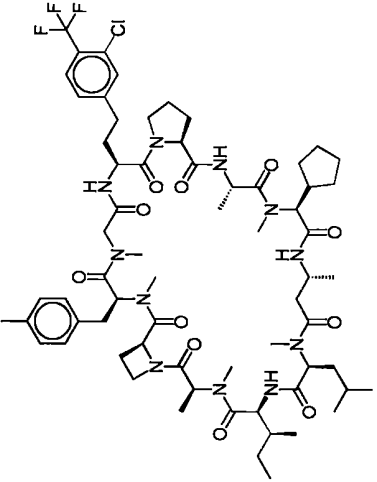
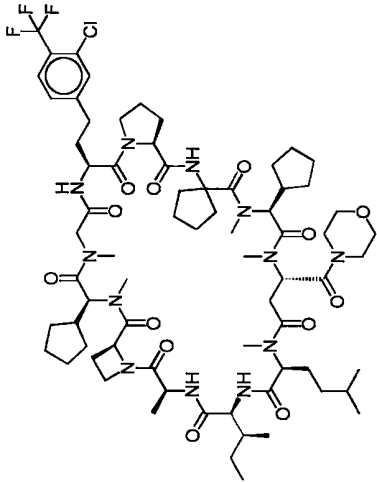
[5480]

	
1214	1216
	
1213	1215

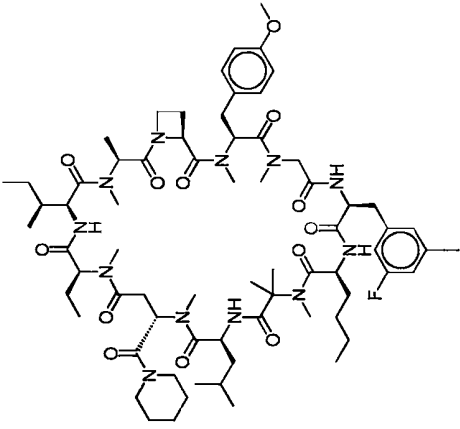
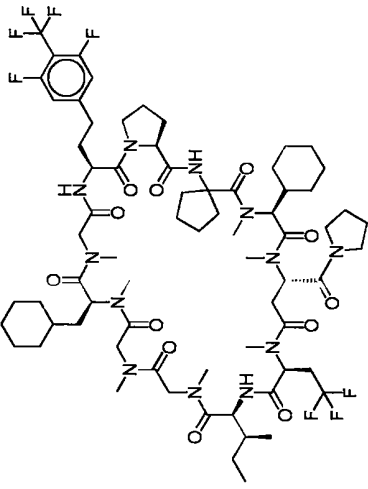
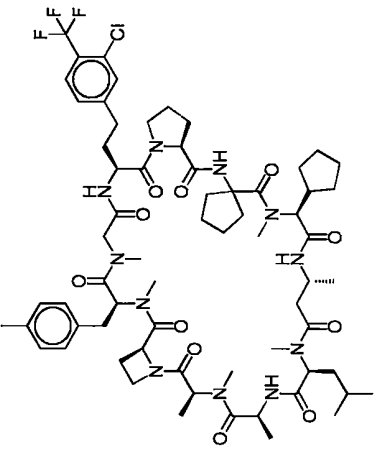
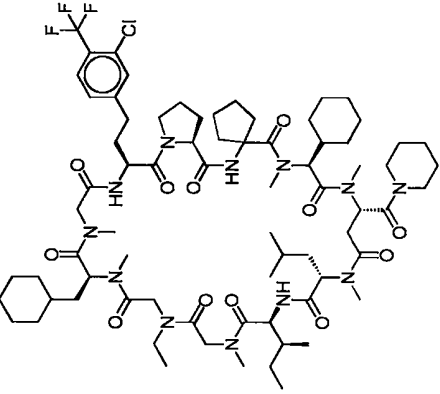
[5481]

	
1218	1220
	
1217	1219

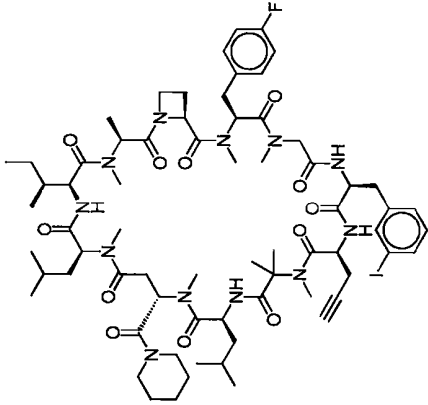
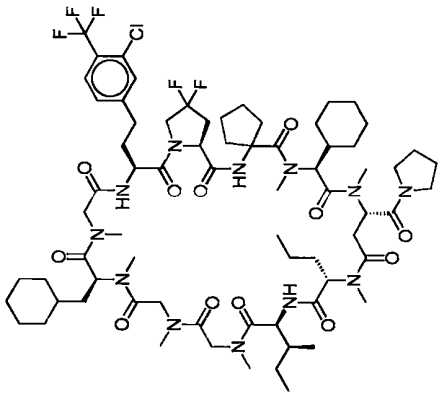
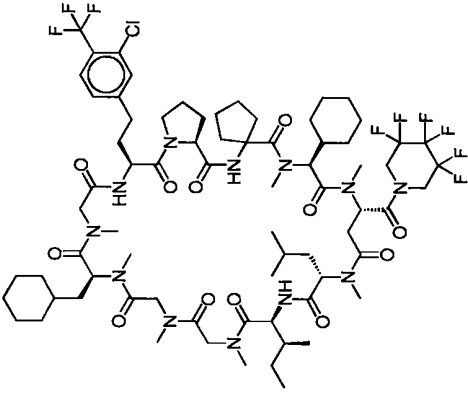
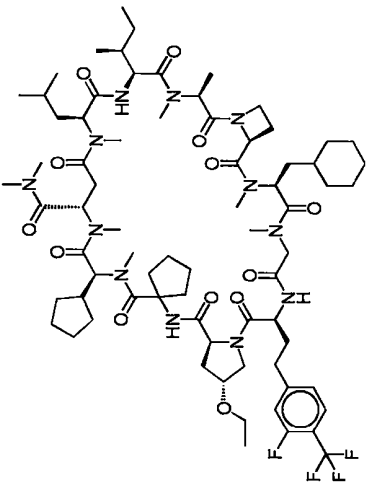
[5482]

	
1222	1224
	
1221	1223

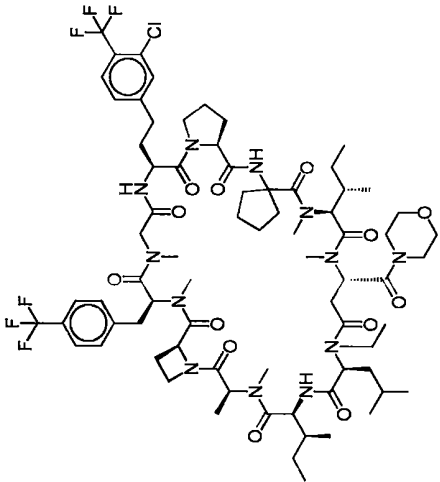
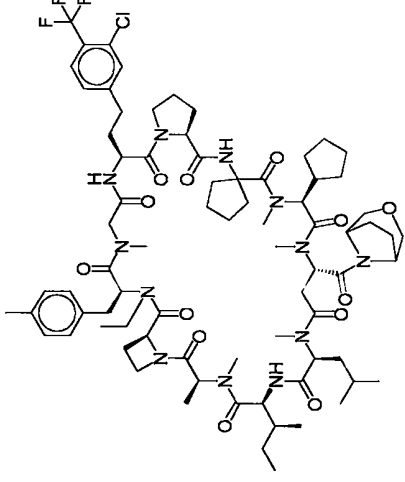
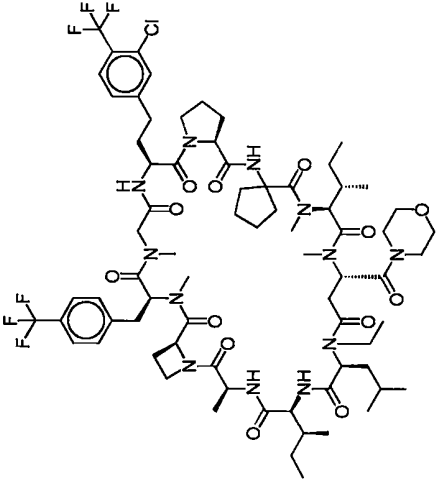
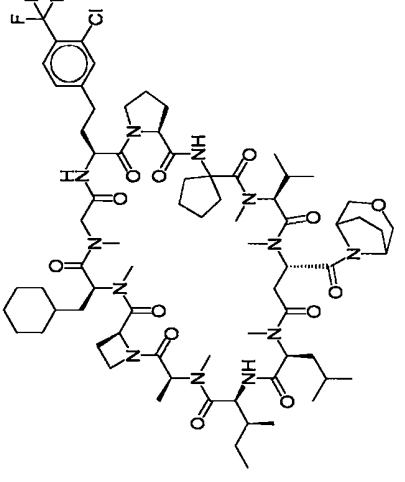
[5483]

	
1226	1228
	
1225	1227

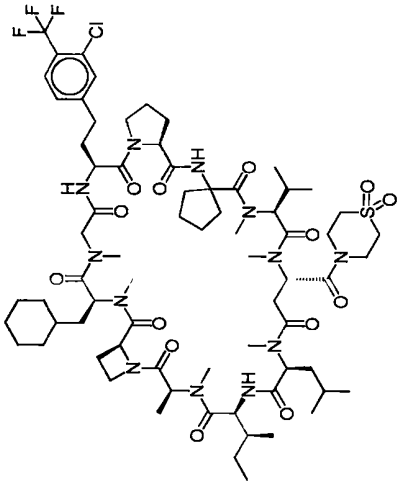
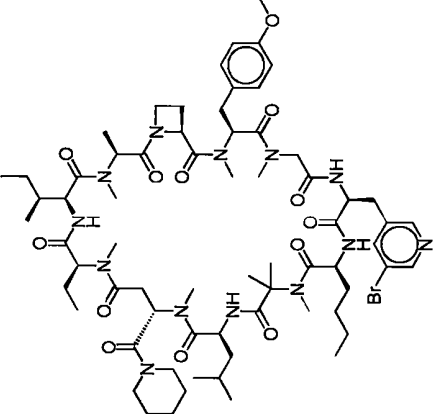
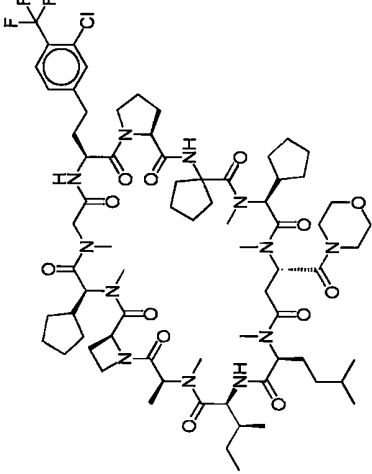
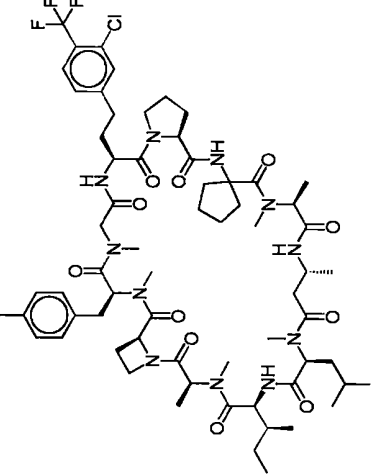
[5484]

	
1230	1232
	
1229	1231

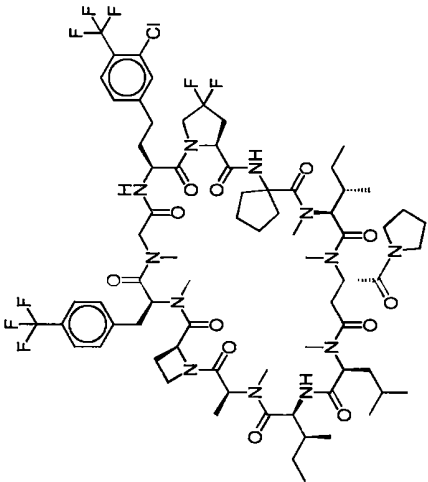
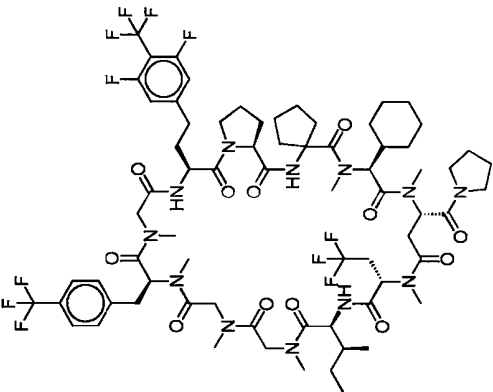
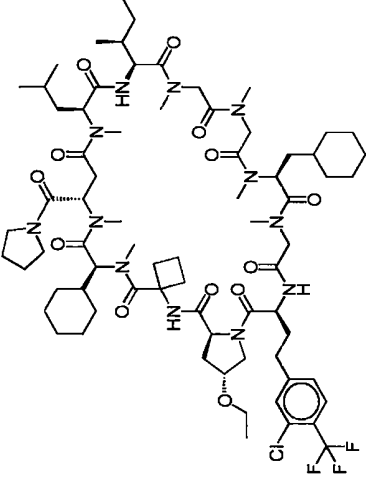
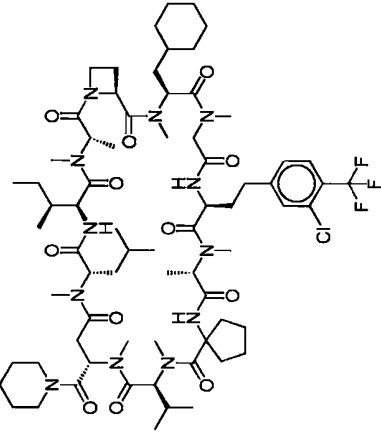
[5485]

	
1234	1236
	
1233	1235

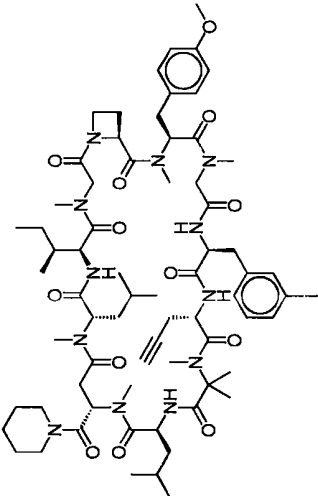
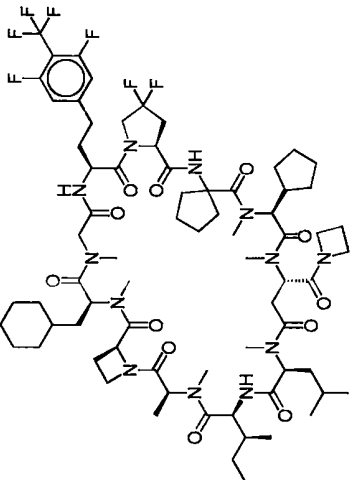
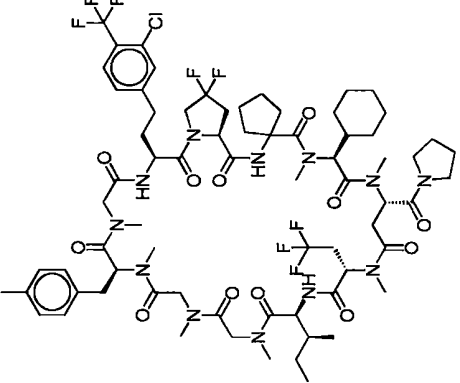
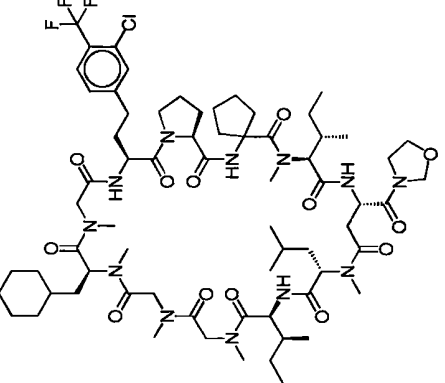
[5486]

	
1238	1240
	
1237	1239

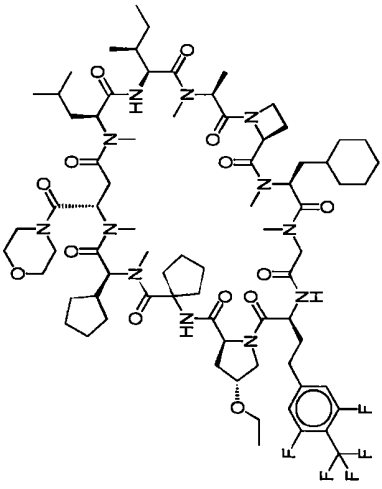
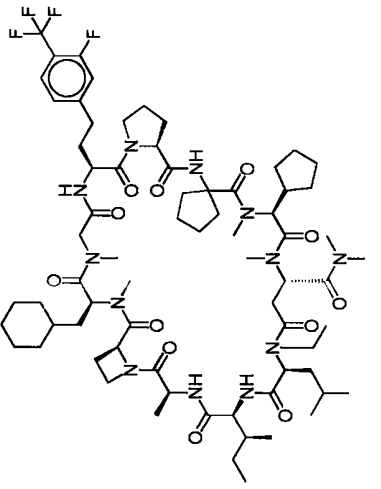
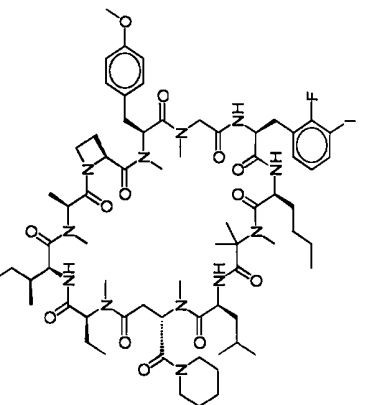
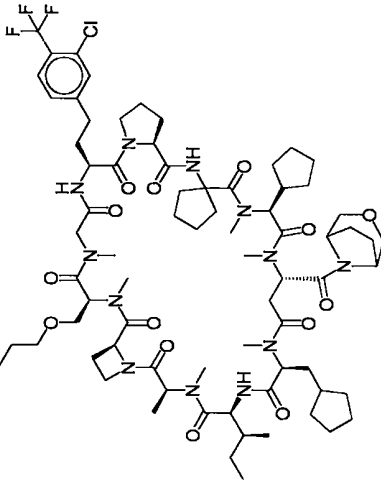
[5487]

	
1242	1244
	
1241	1243

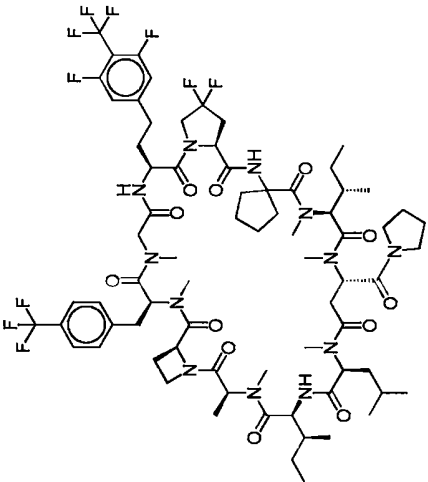
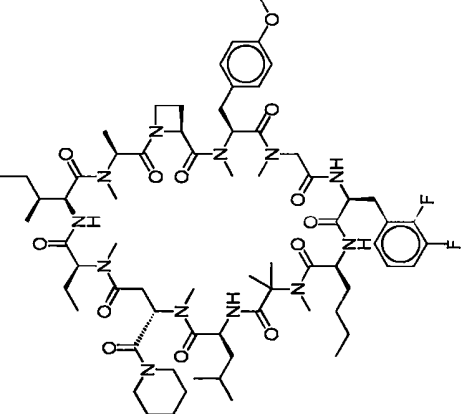
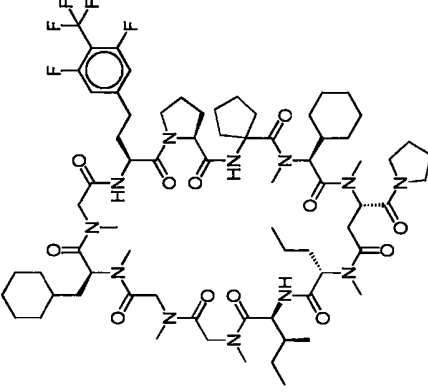
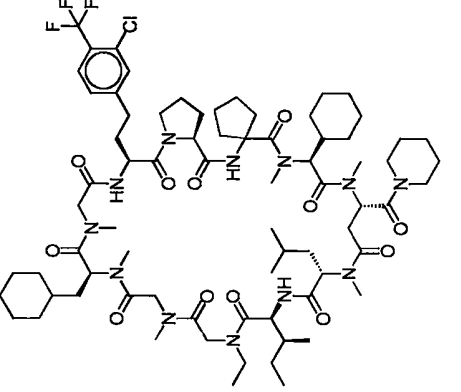
[5488]

	
1246	1248
	
1245	1247

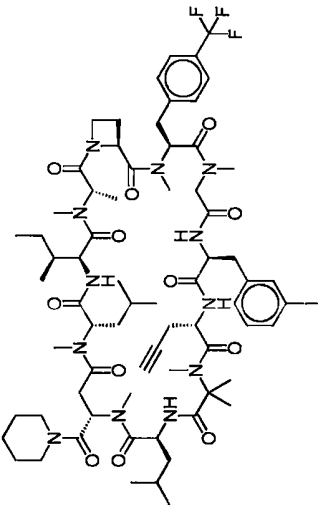
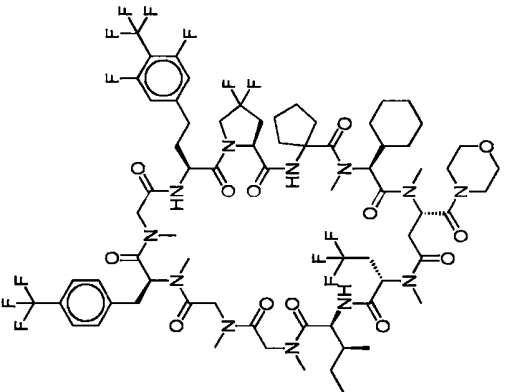
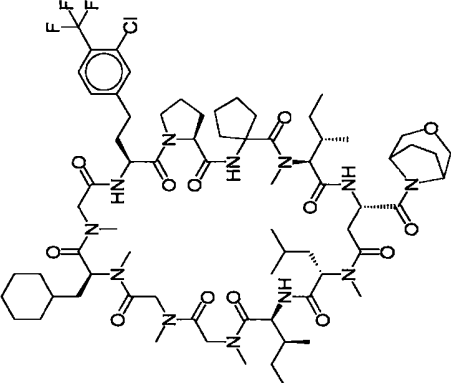
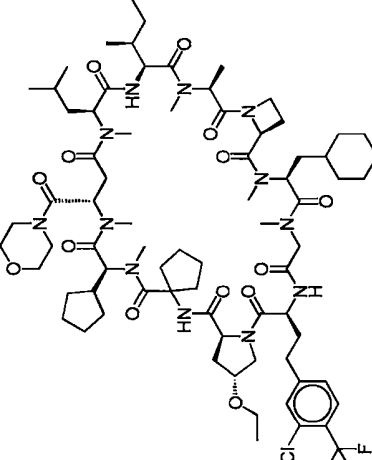
[5489]

	
1250	1252
	
1249	1251

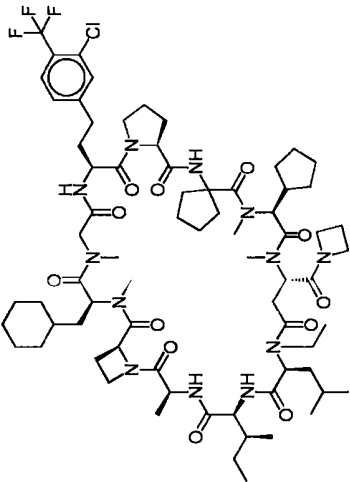
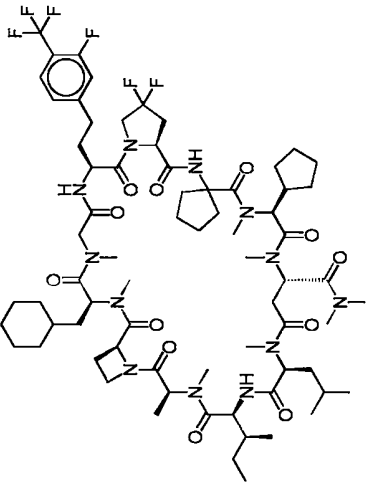
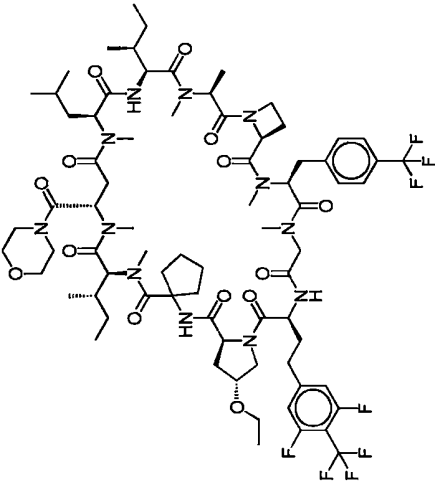
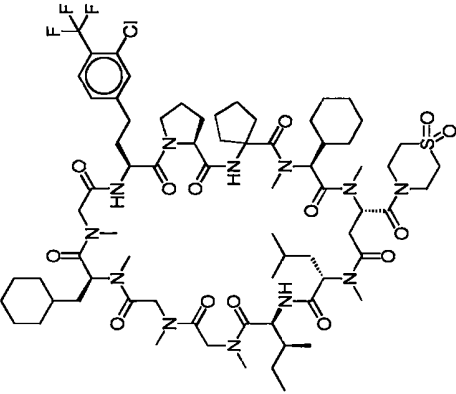
[5490]

	
1254	1256
	
1253	1255

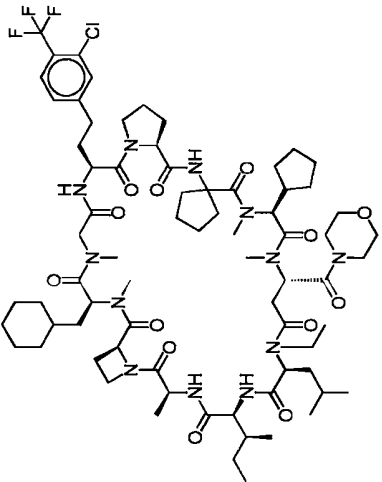
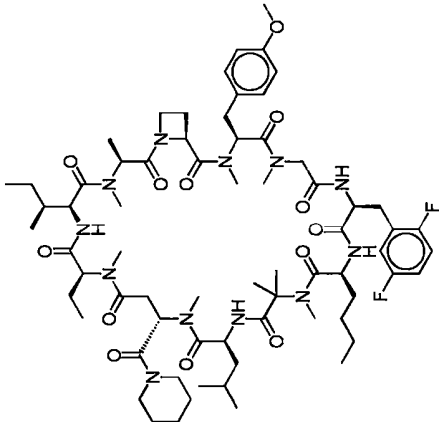
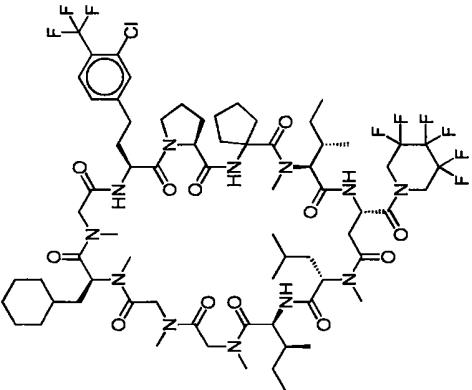
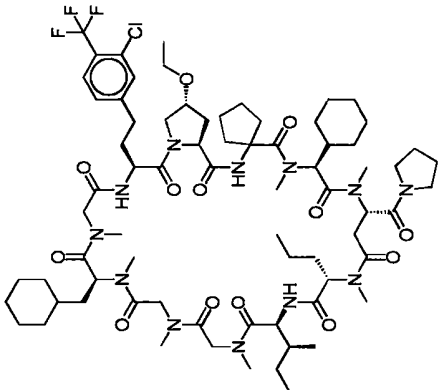
[5491]

	
1258	1260
	
1257	1259

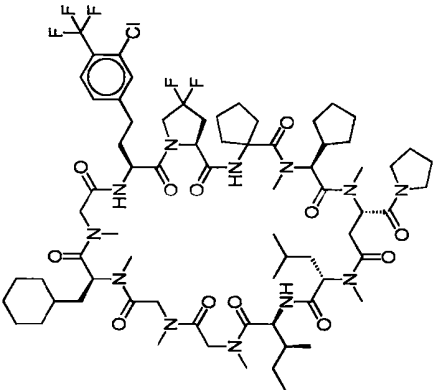
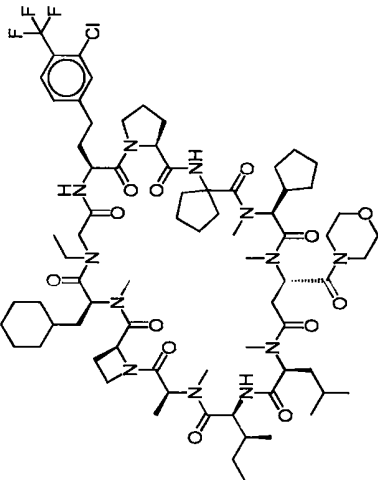
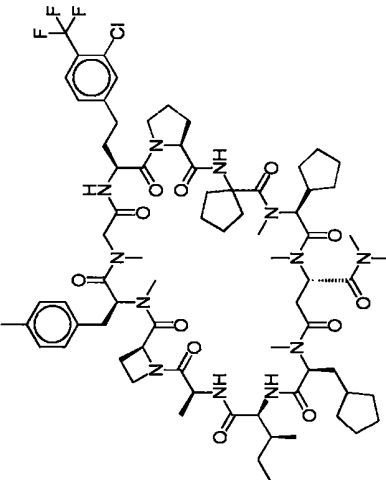
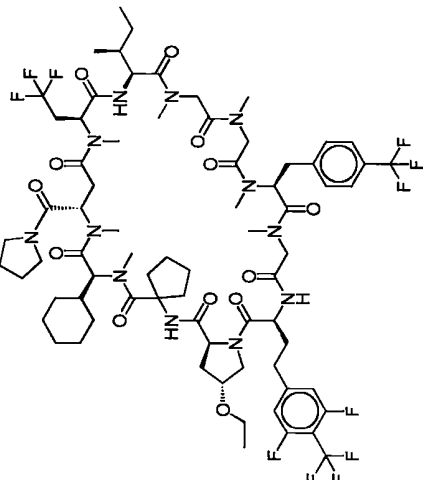
[5492]

	
1262	1264
	
1261	1263

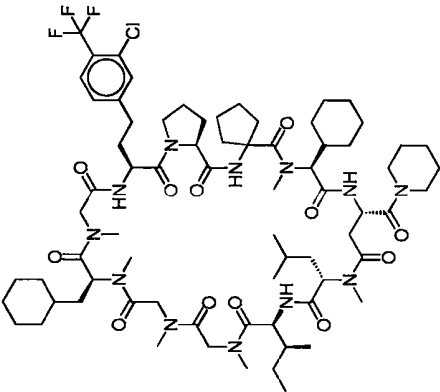
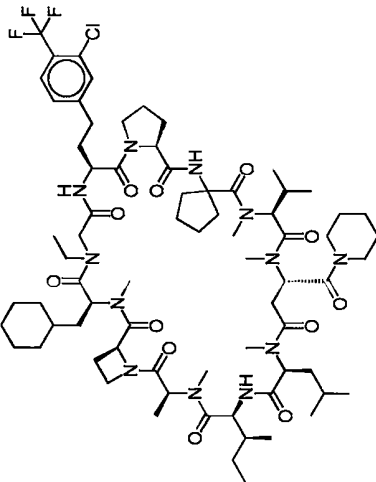
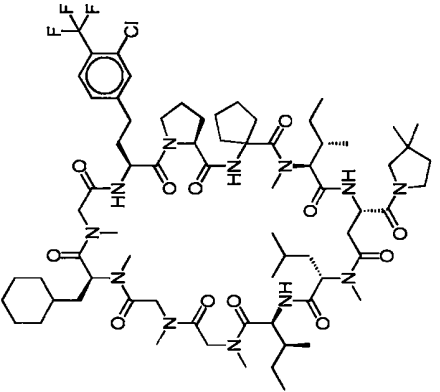
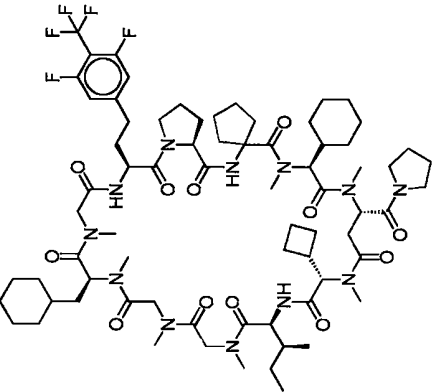
[5493]

	
1266	1268
	
1265	1267

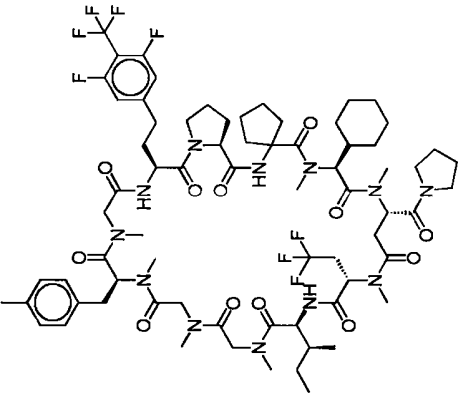
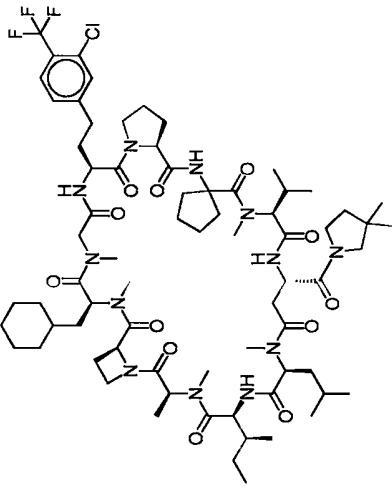
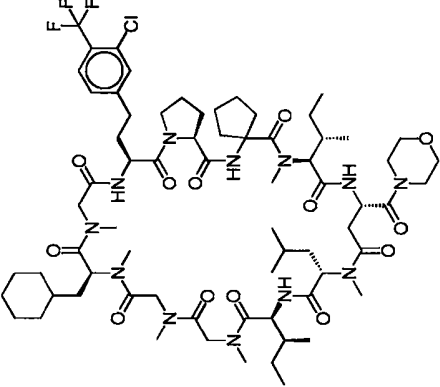
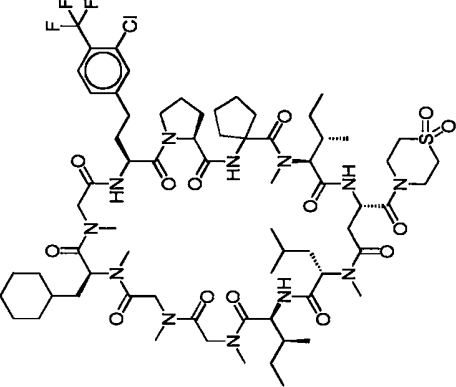
[5494]

	
1270	1272
	
1269	1271

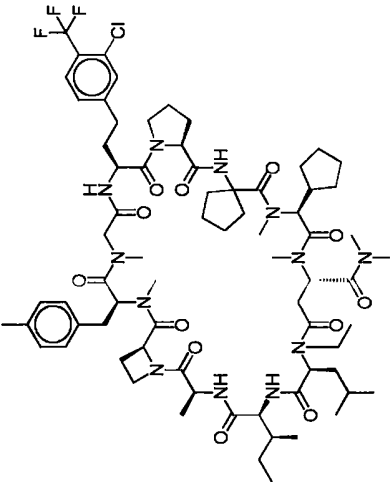
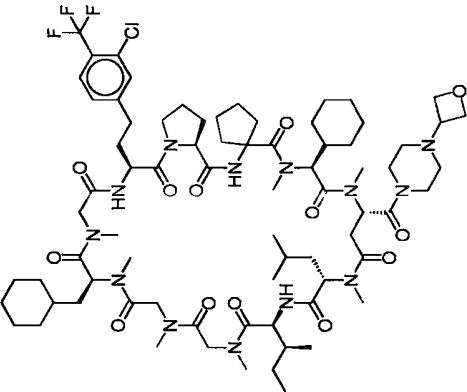
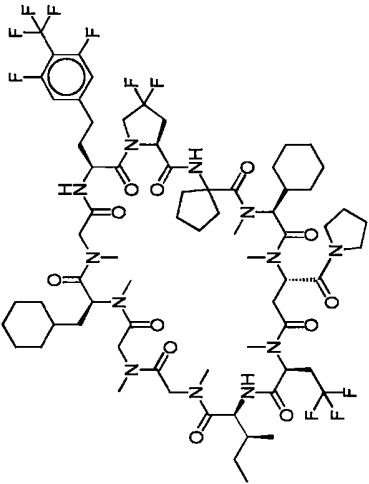
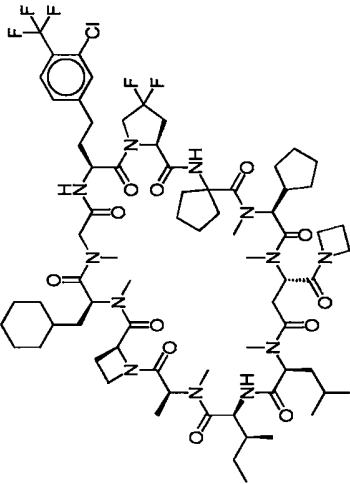
[5495]

	
1274	1276
	
1273	1275

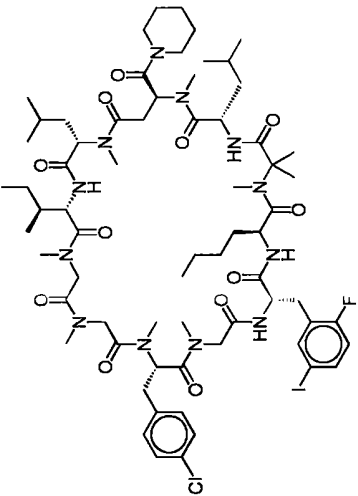
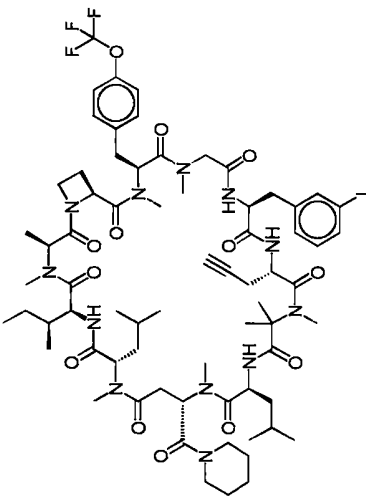
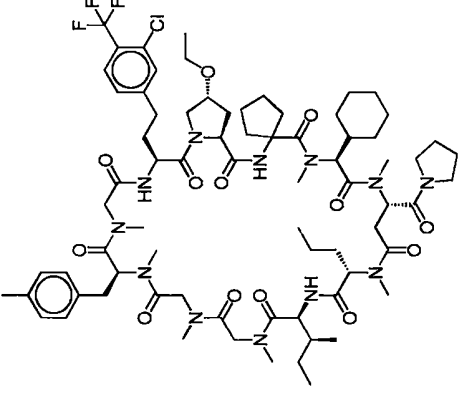
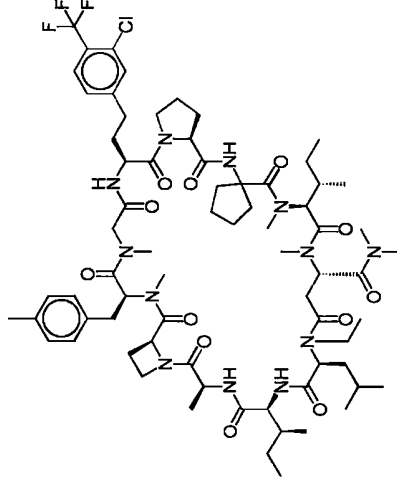
[5496]

	
1278	1280
	
1277	1279

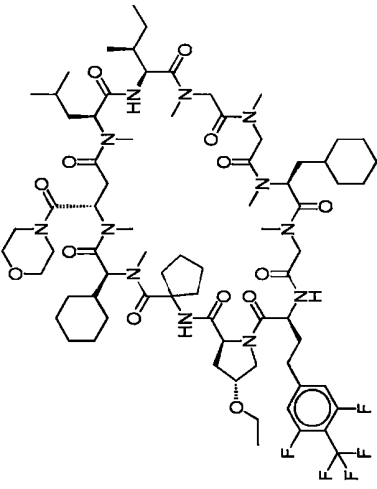
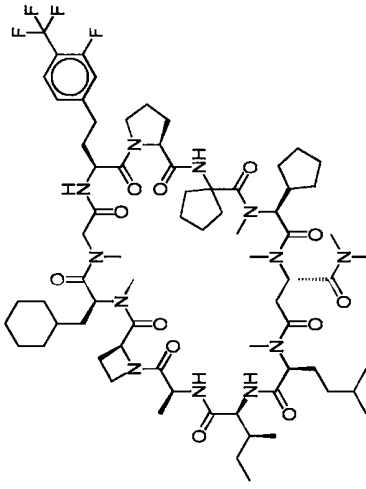
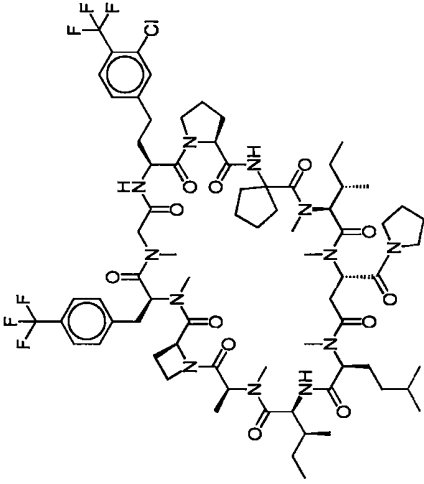
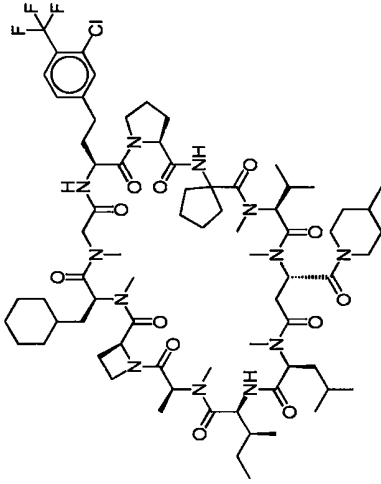
[5497]

	
1282	1284
	
1281	1283

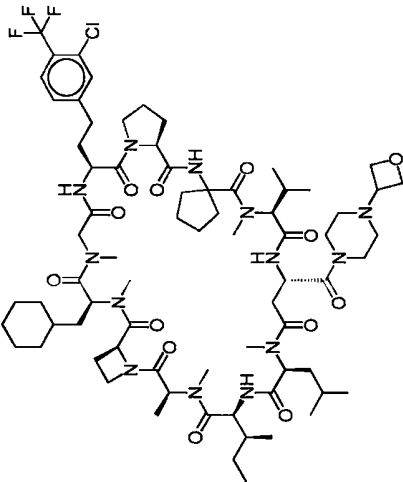
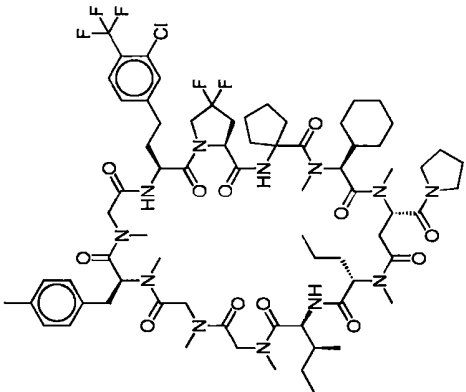
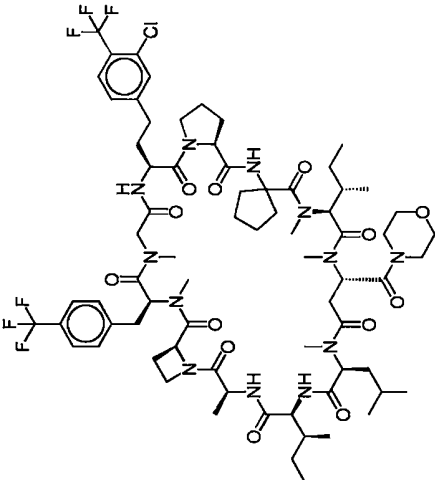
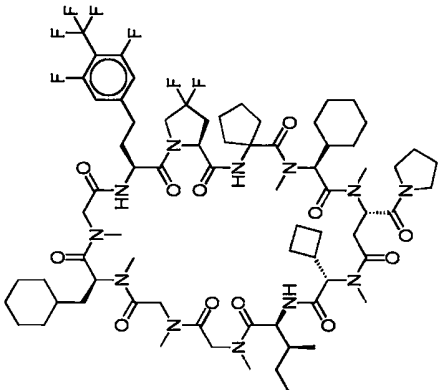
[5498]

	
1286	1288
	
1285	1287

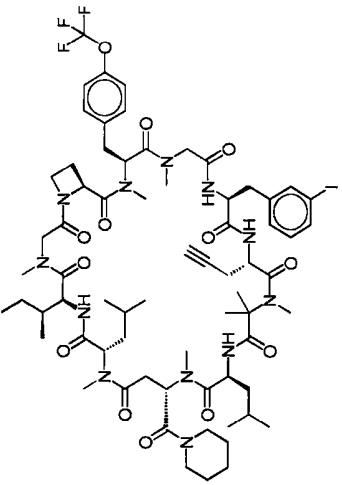
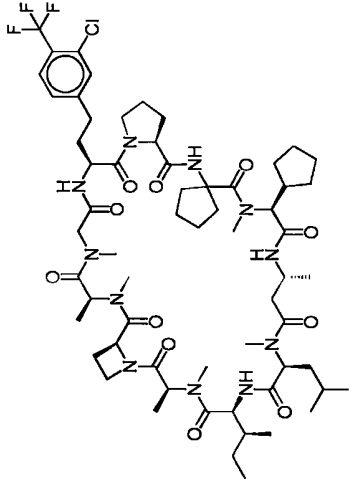
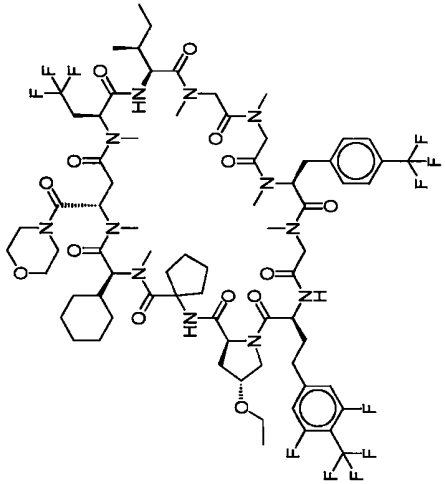
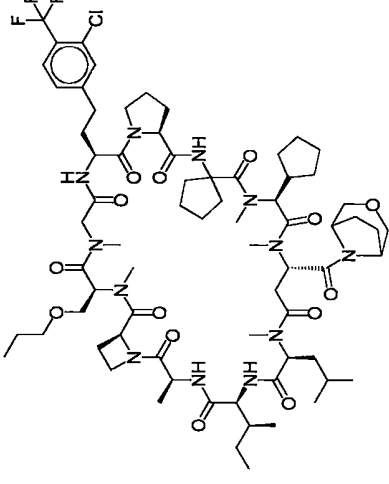
[5499]

	
1290	1292
	
1289	1291

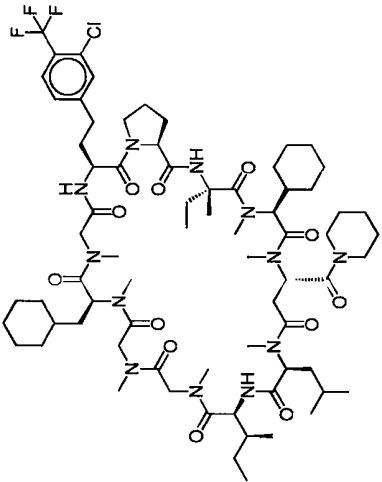
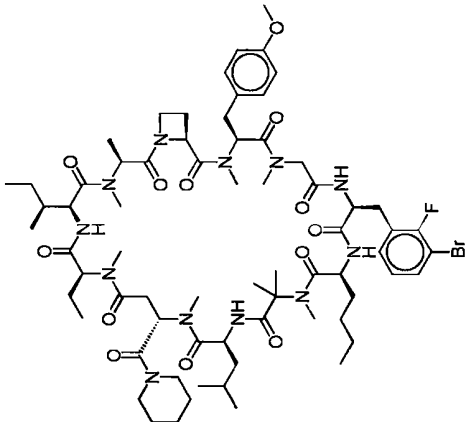
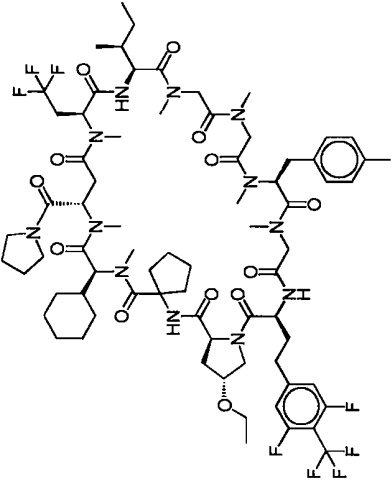
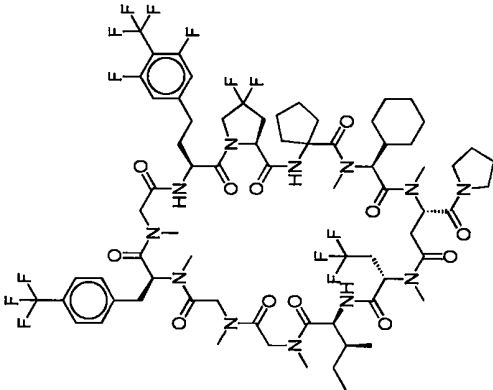
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1294	1296
	
1293	1295

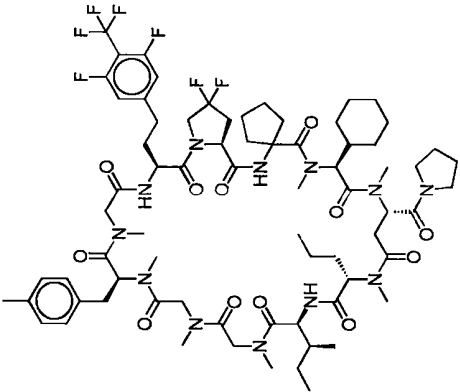
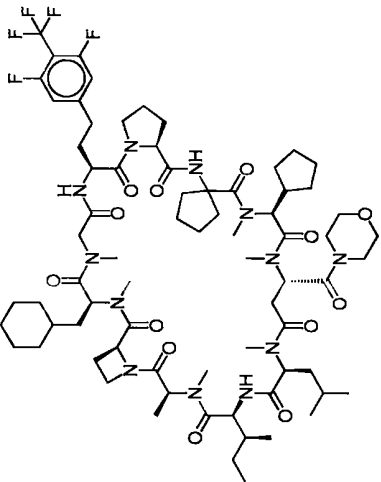
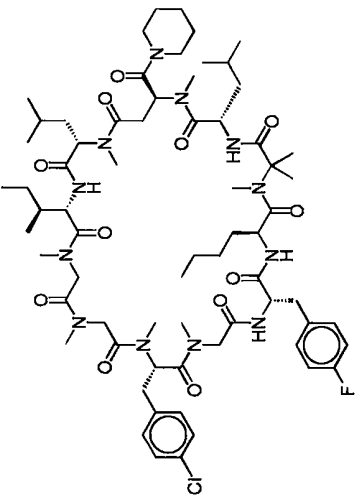
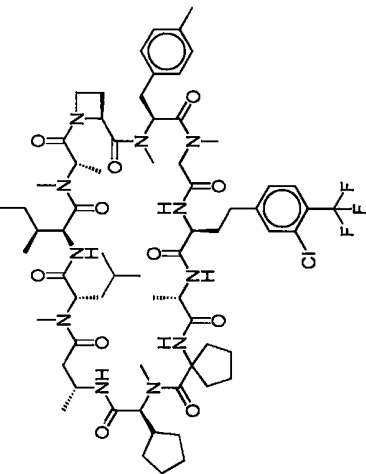
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1298	1300
	
1297	1299

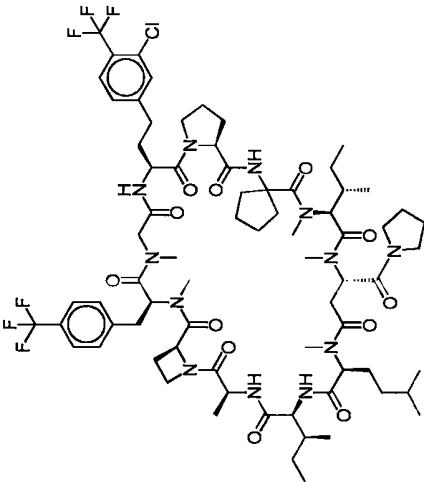
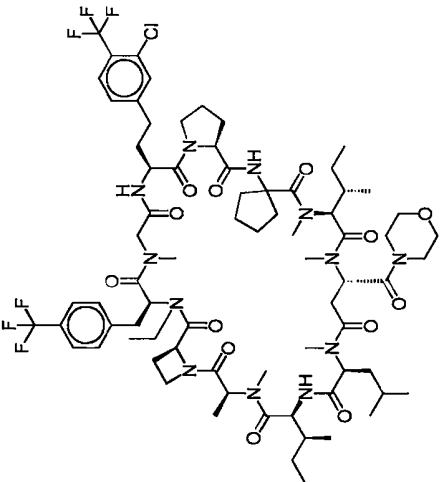
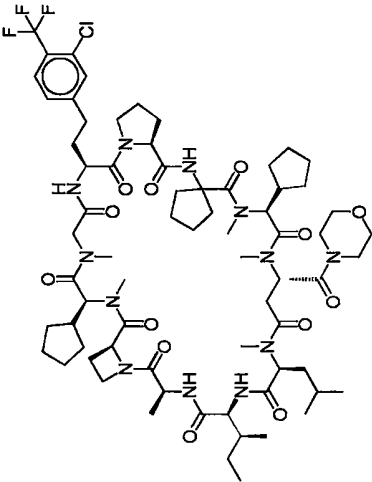
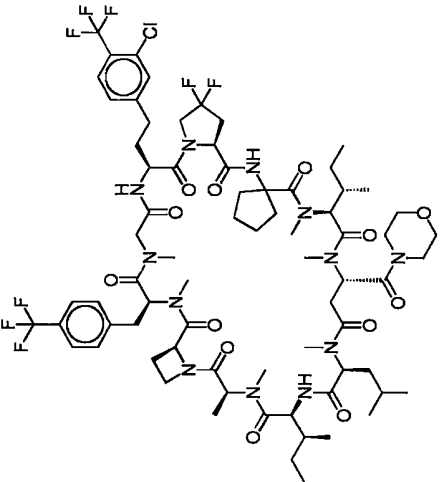
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1302	1304
	
1301	1303

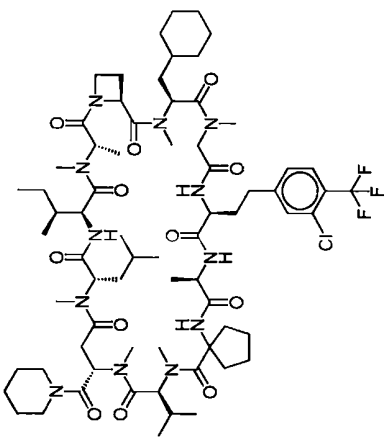
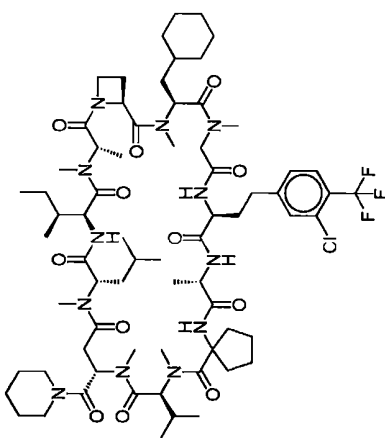
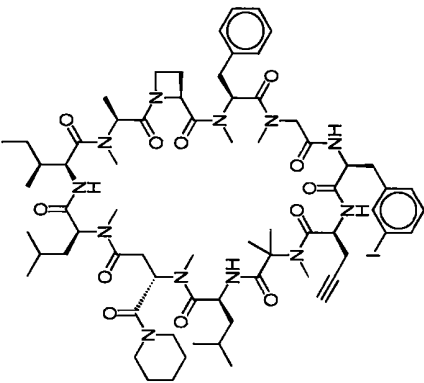
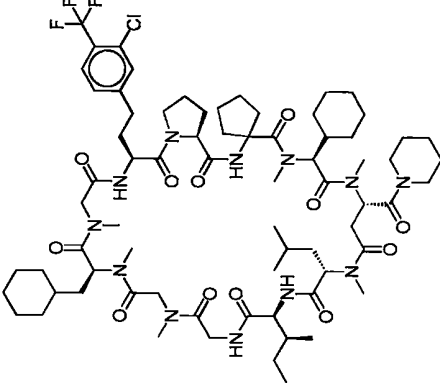
[5503]

	
1306	1308
	
1305	1307

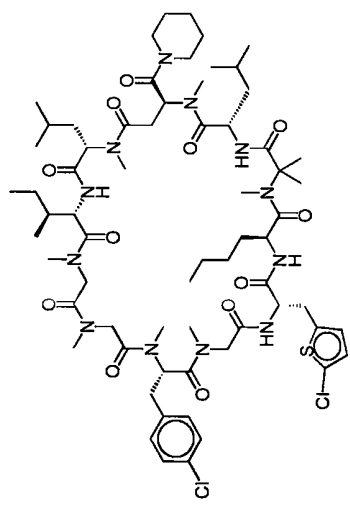
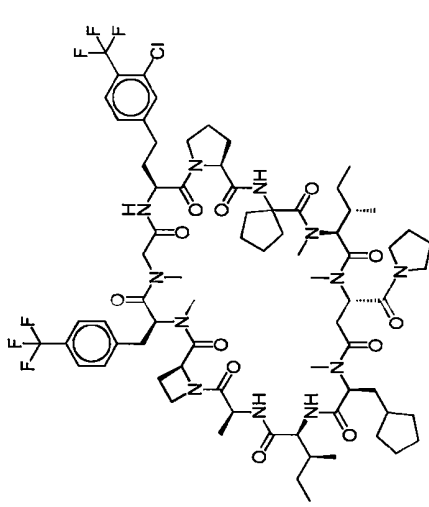
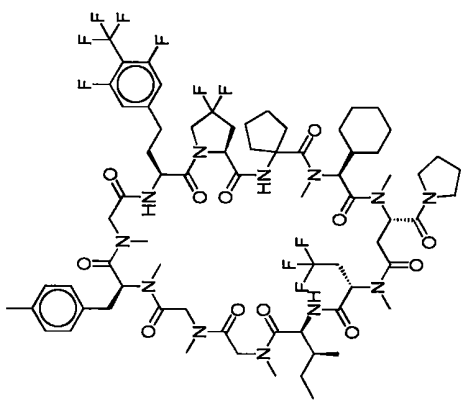
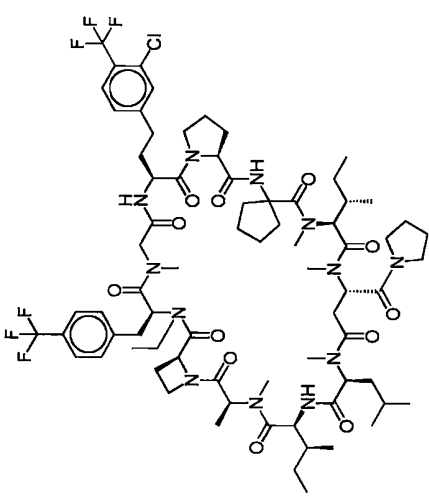
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1310	1312
	
1309	1311

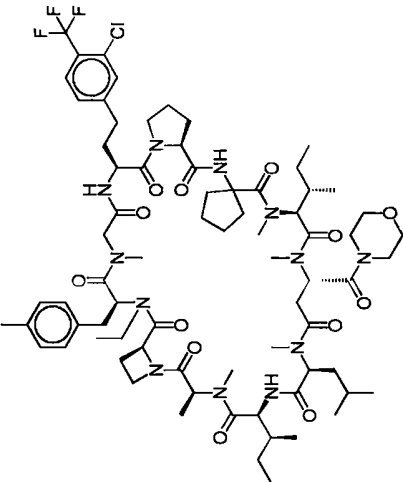
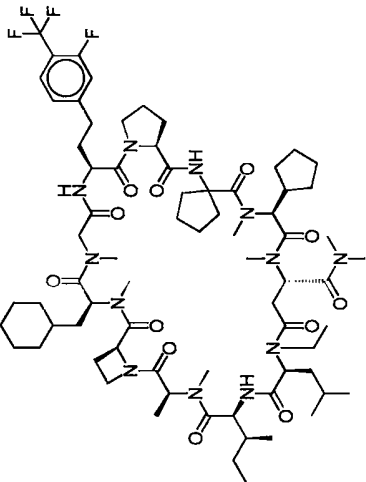
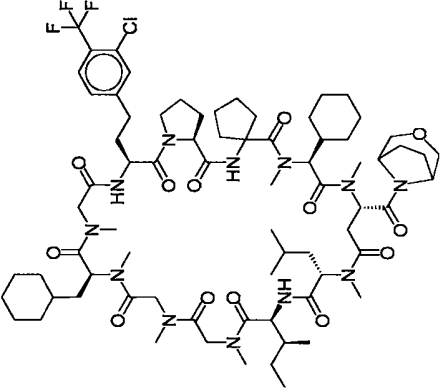
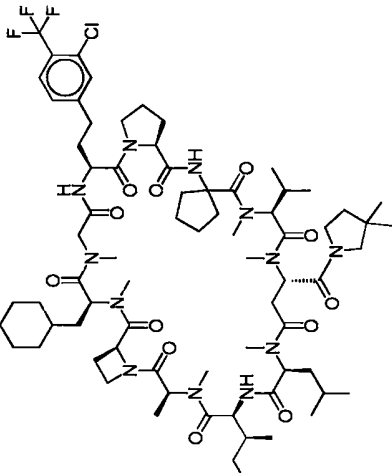
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1314	1316
	
1313	1315

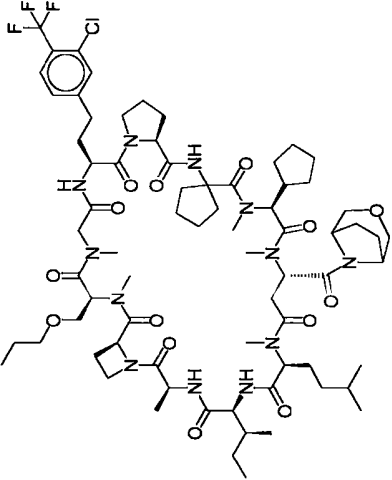
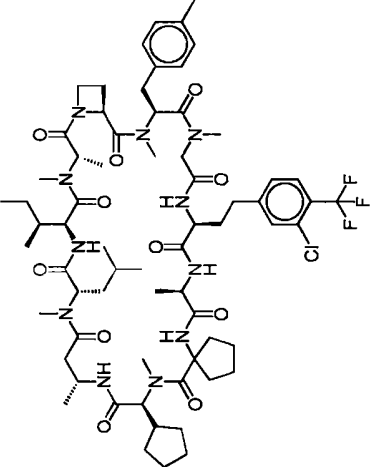
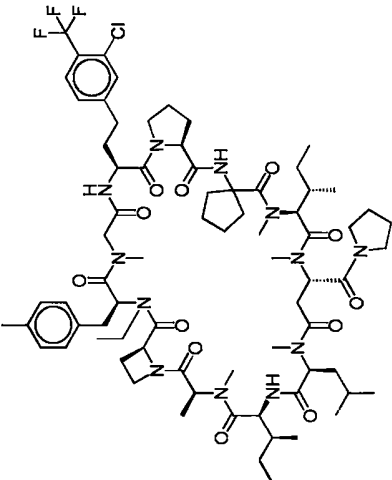
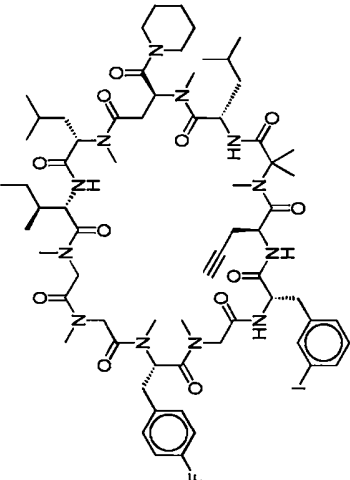
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1318	1320
	
1317	1319

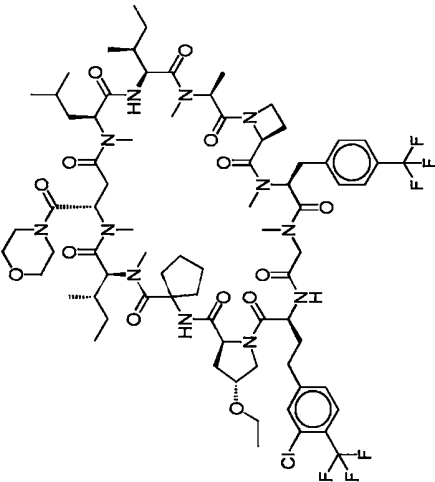
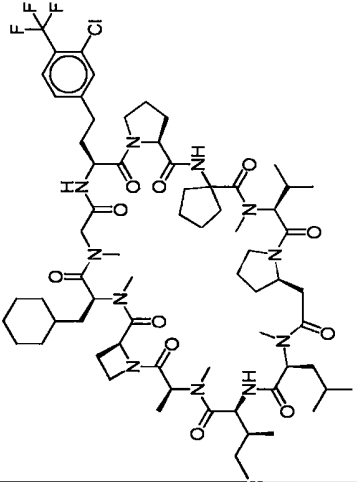
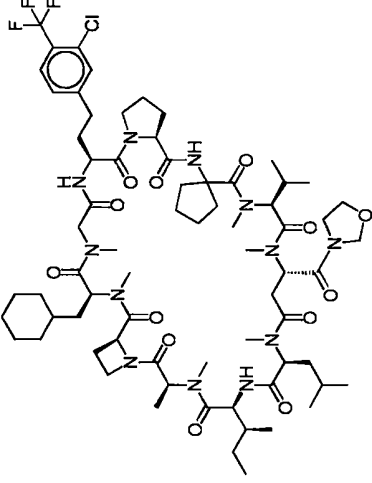
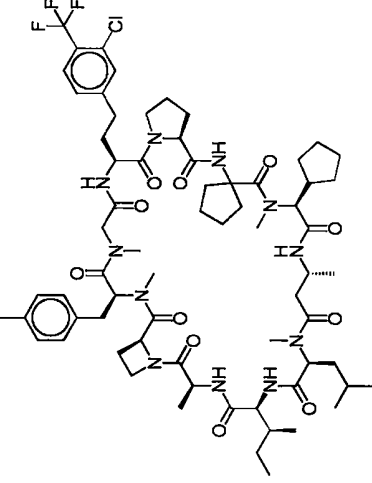
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1322	1324
	
1321	1323

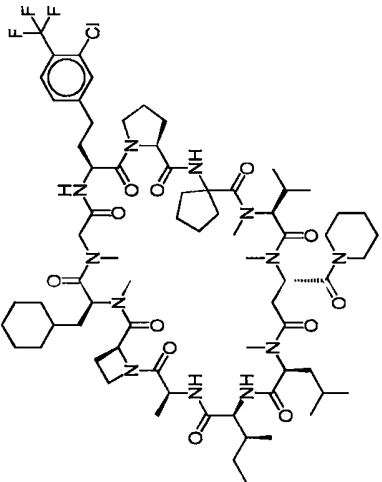
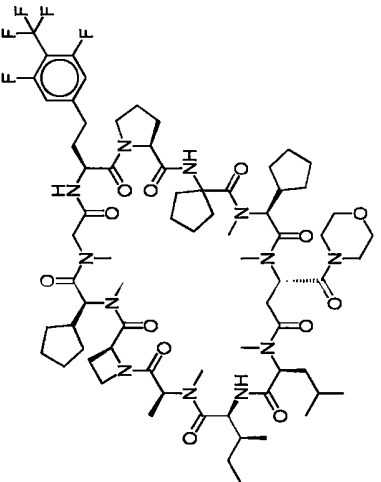
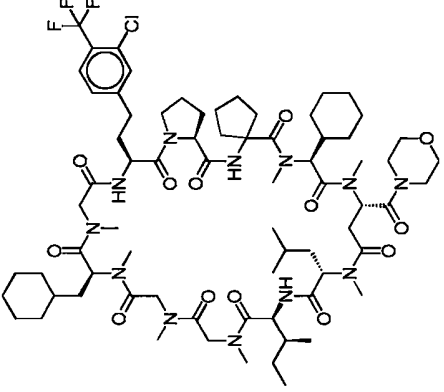
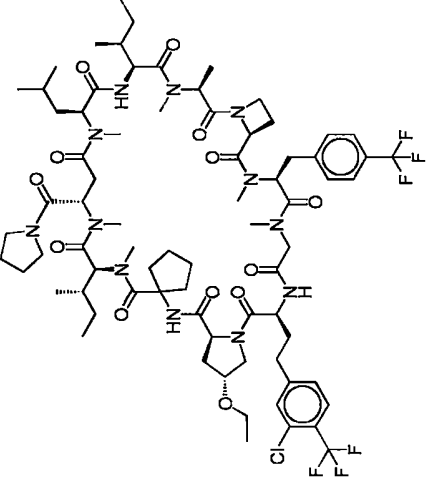
[5508]

	
1326	1328
	
1325	1327

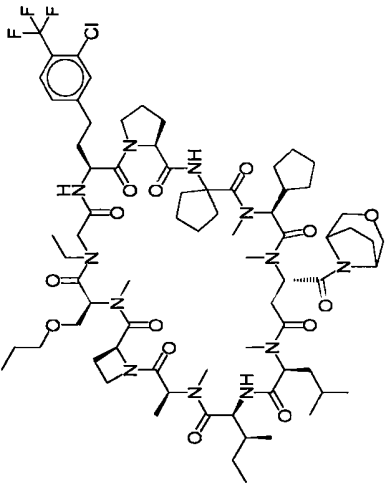
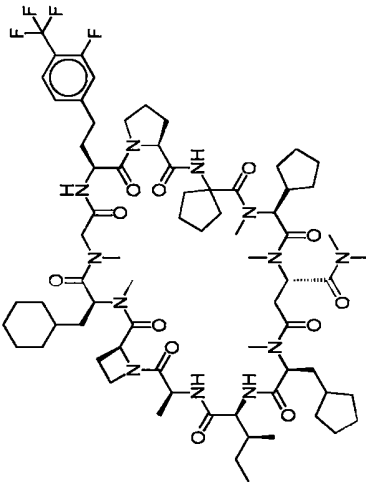
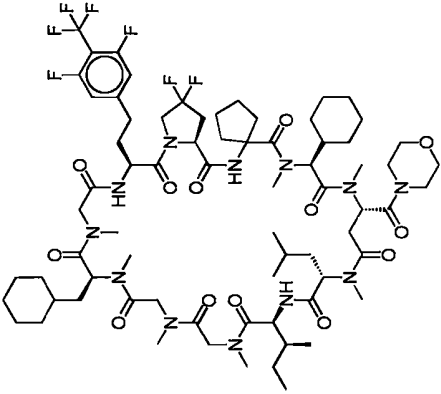
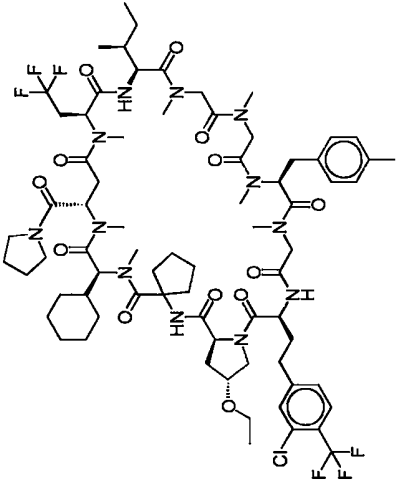
[5509]

	
1330	1332
	
1329	1331

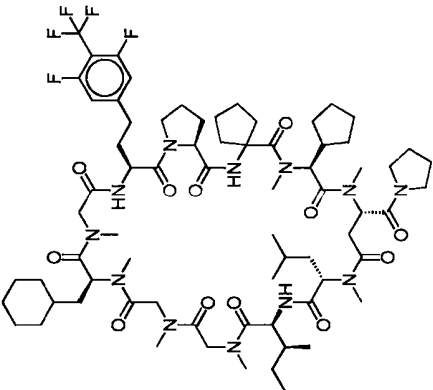
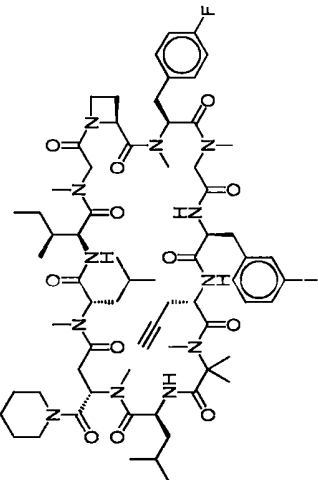
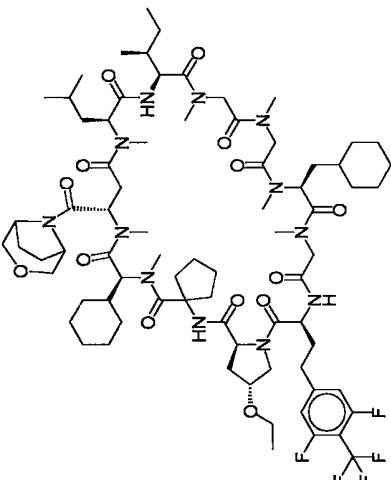
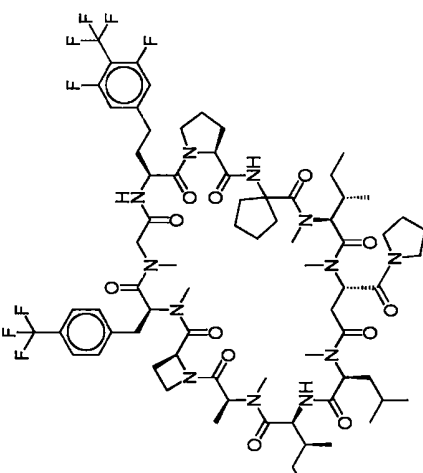
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1334	1336
	
1333	1335

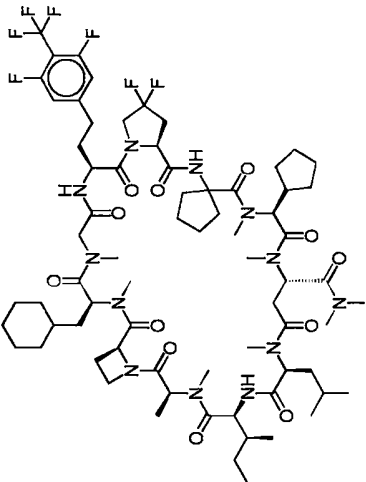
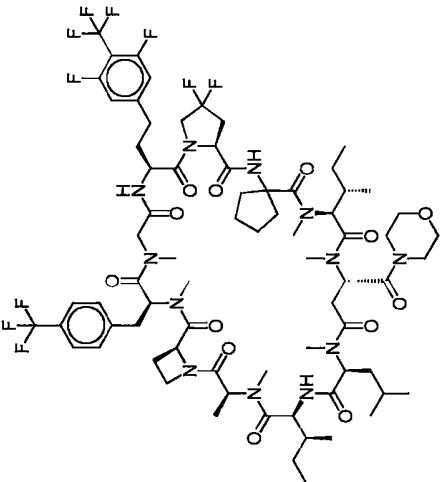
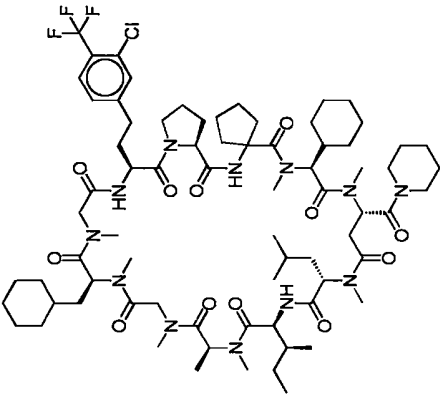
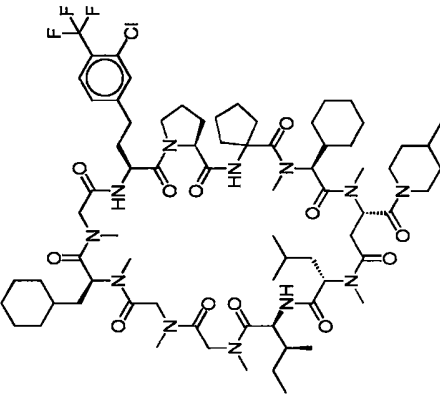
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1338	1340
	
1337	1339

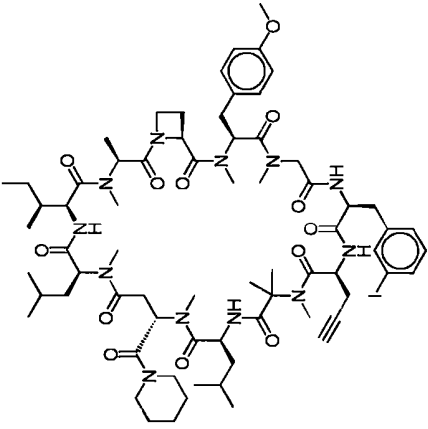
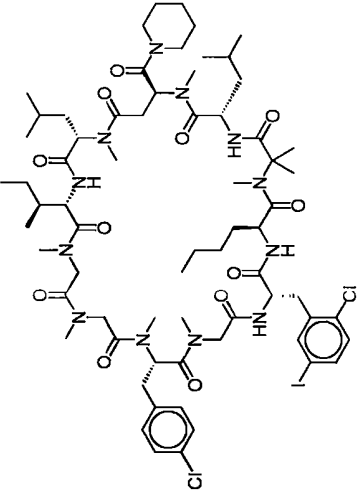
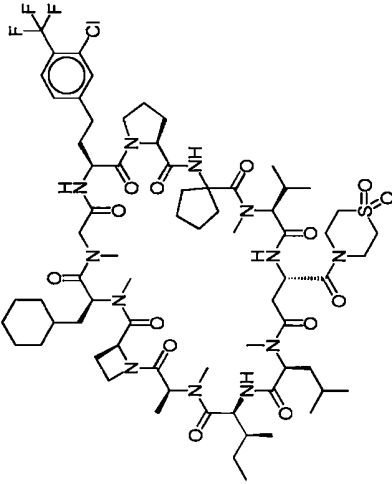
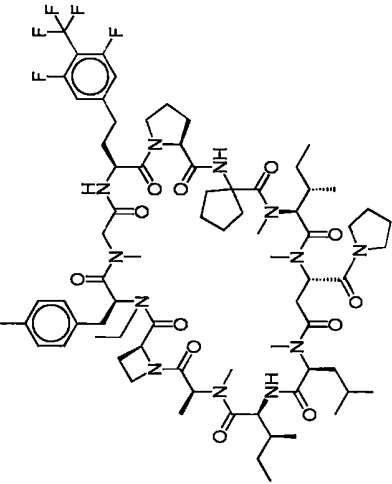
[5512]

	
1342	1344
	
1341	1343

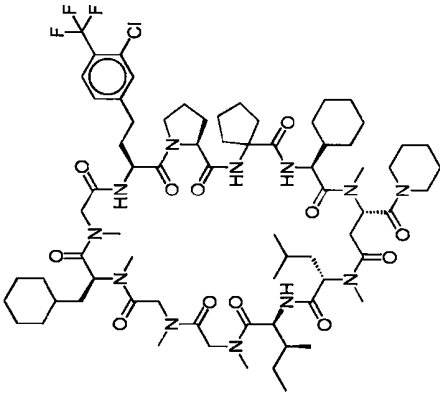
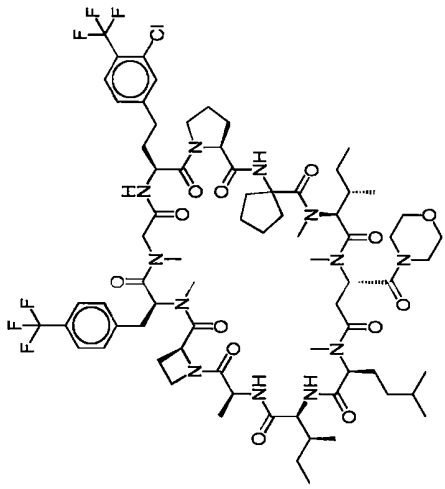
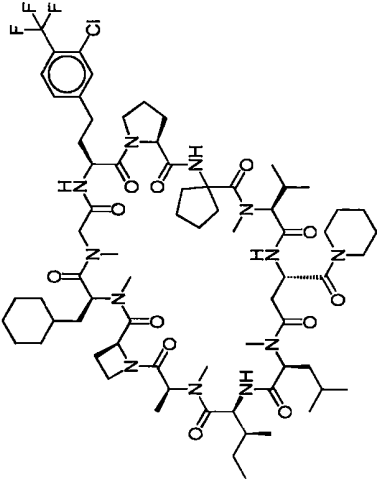
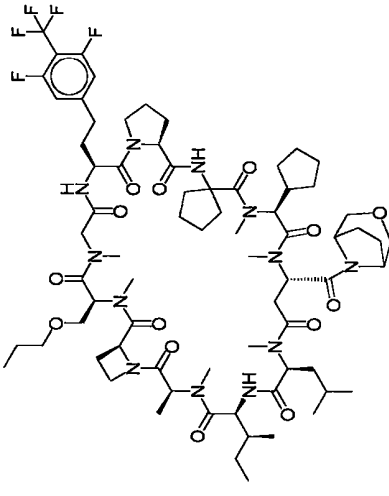
[5513]

	
1346	1348
	
1345	1347

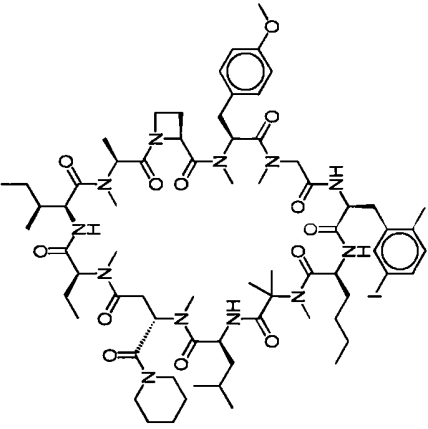
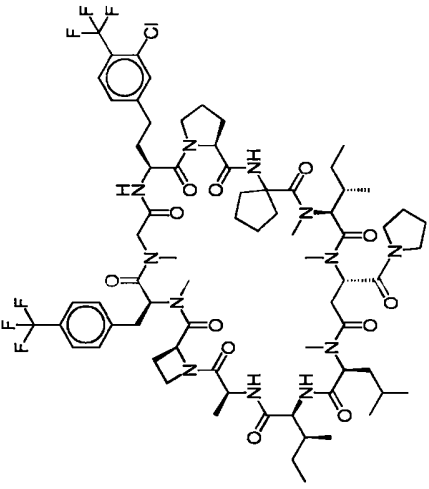
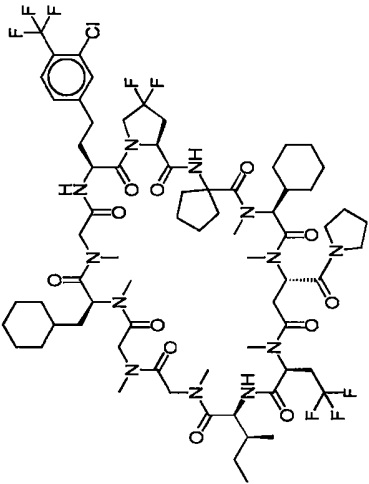
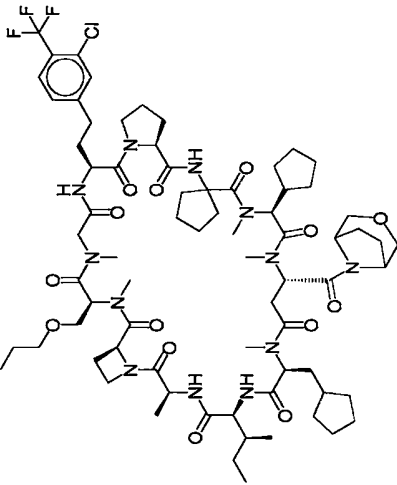
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1350	1352
	
1349	1351

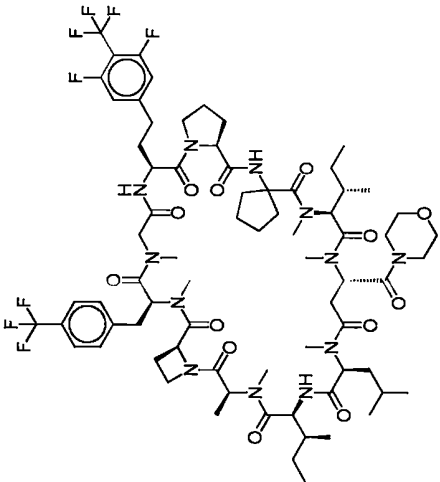
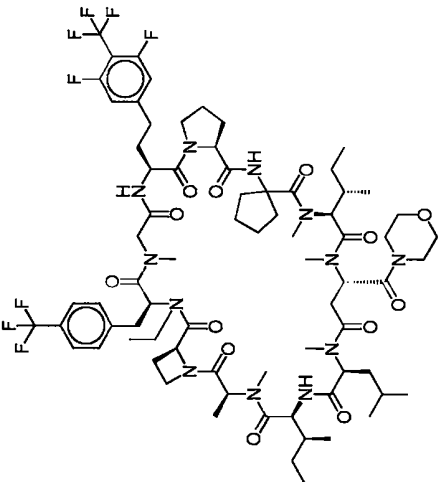
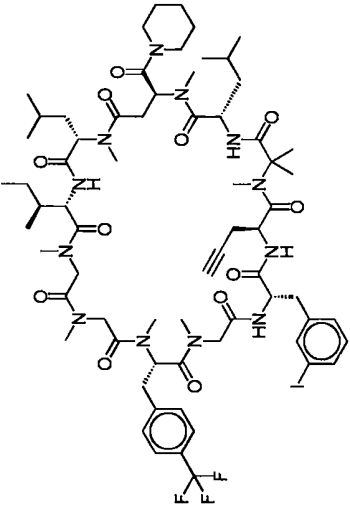
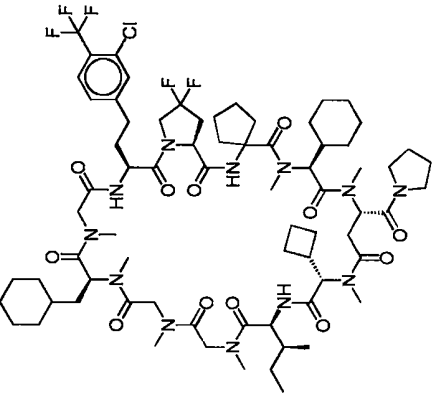
[5515]

	
1354	1356
	
1353	1355

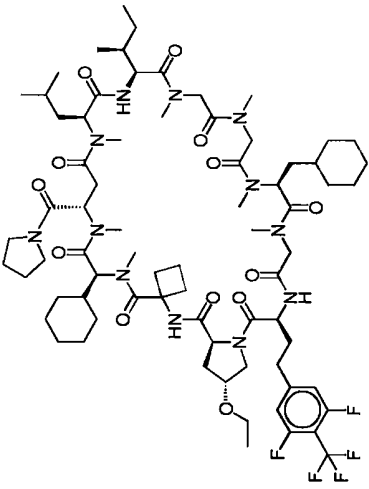
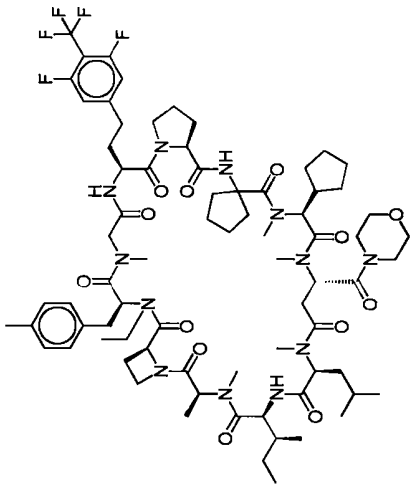
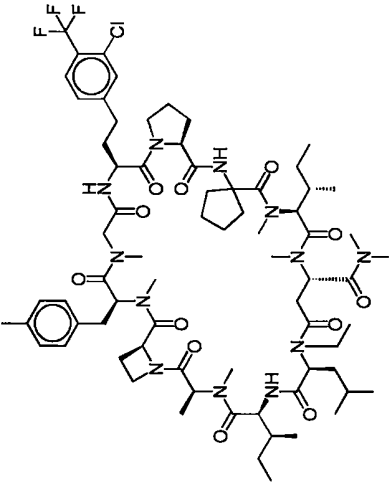
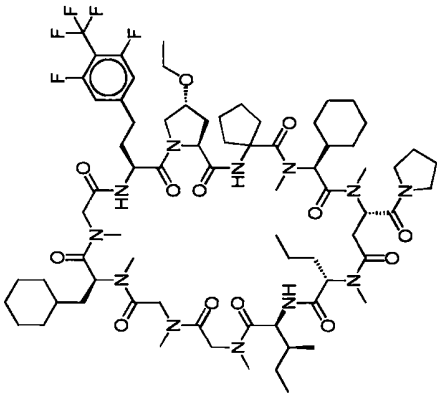
[5516]

	
1358	1360
	
1357	1359

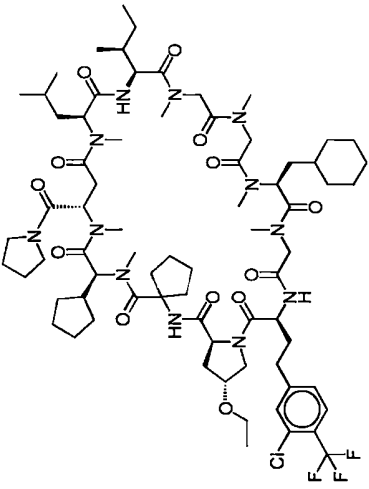
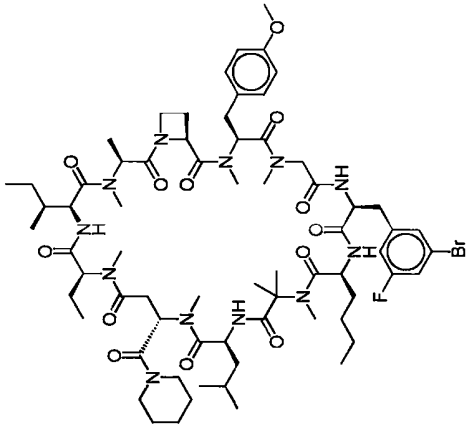
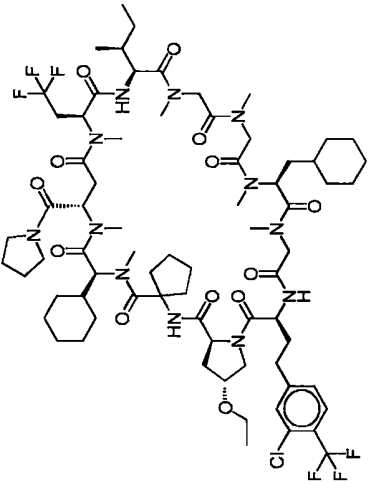
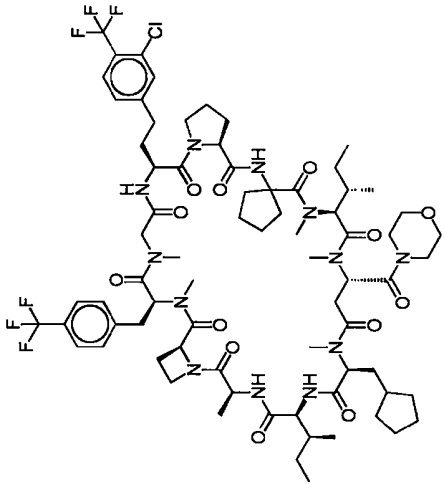
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1362	1364
	
1361	1363

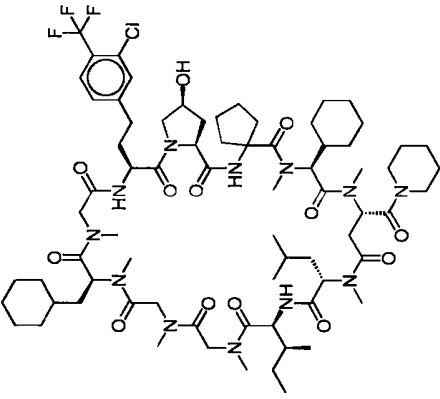
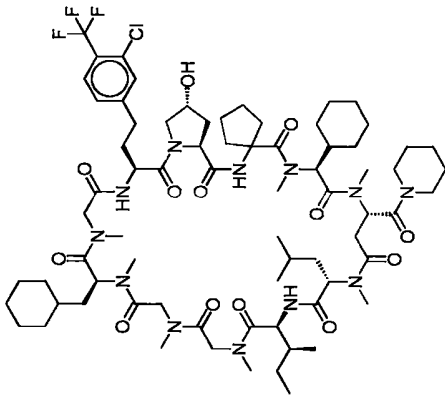
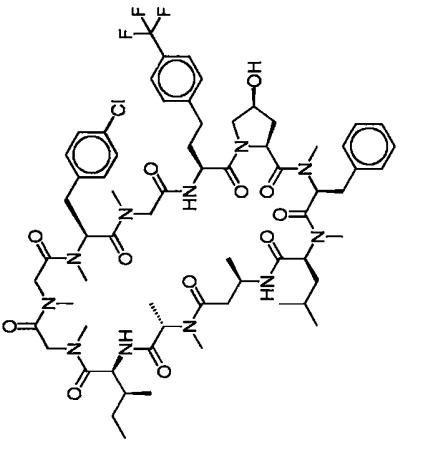
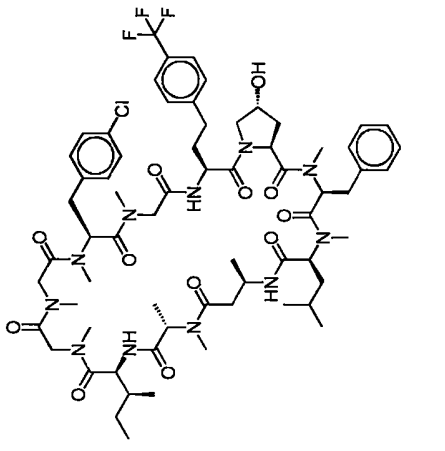
[5518]

	
1366	1368
	
1365	1367

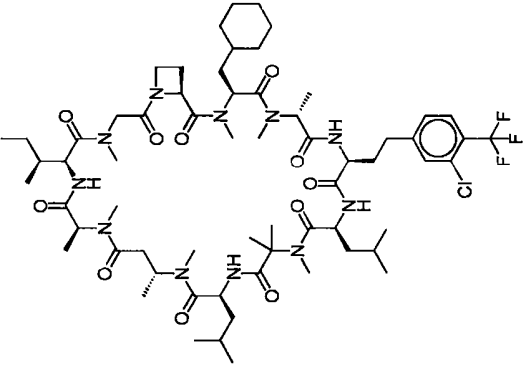
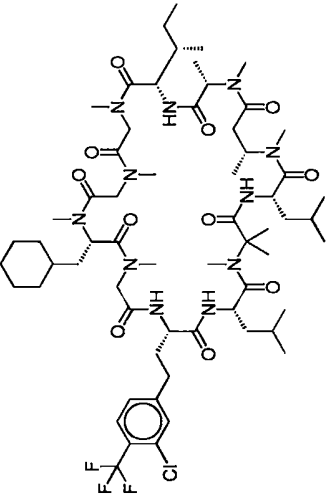
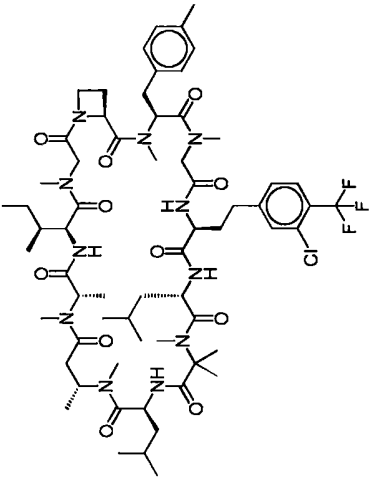
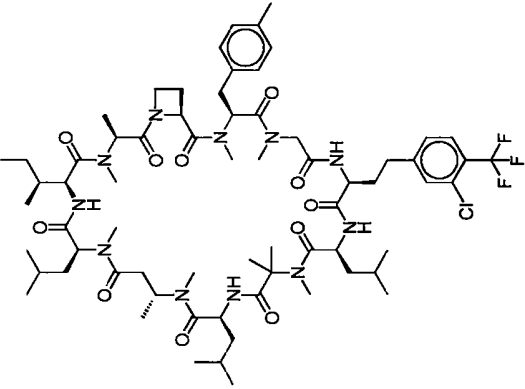
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1370	1372
	
1369	1371

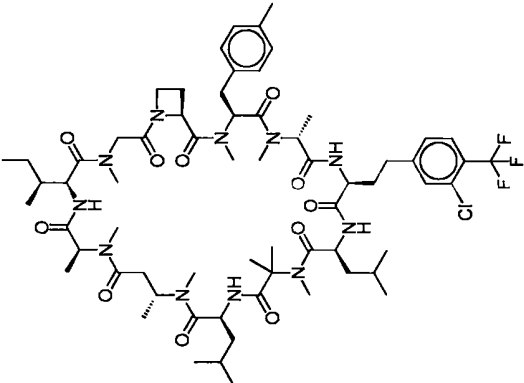
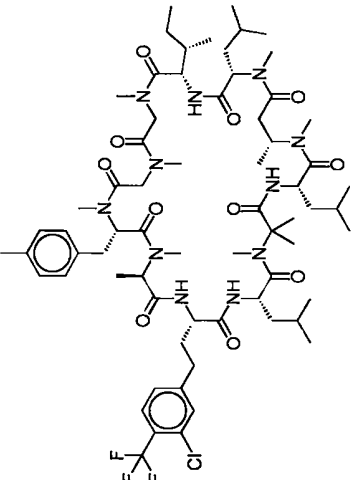
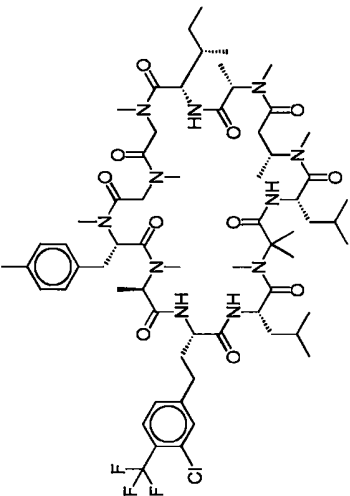
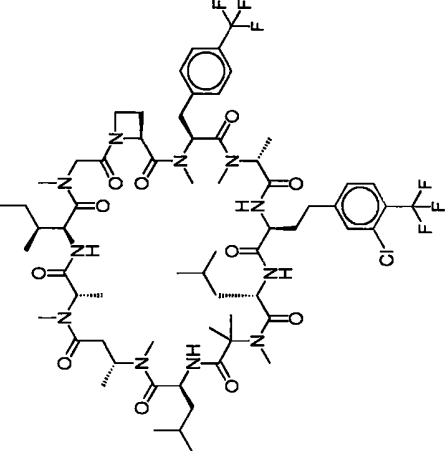
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1374	1376
	
1373	1375

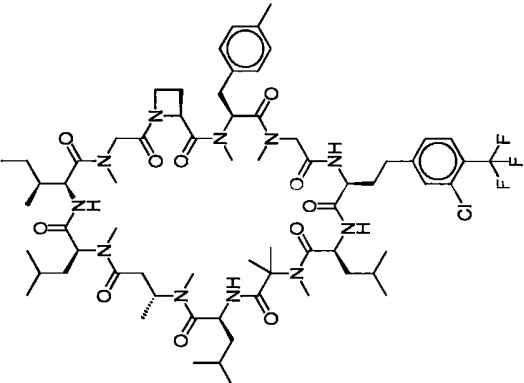
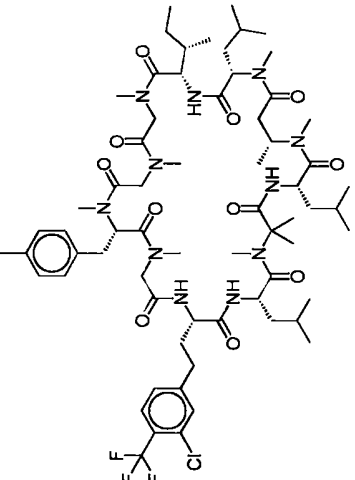
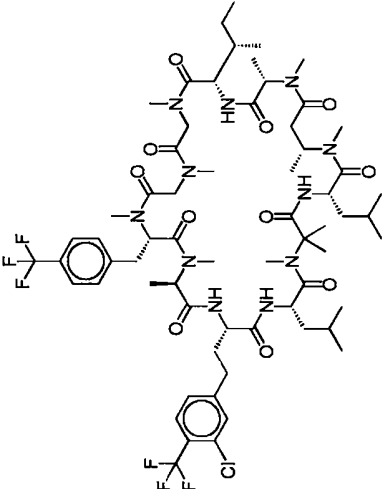
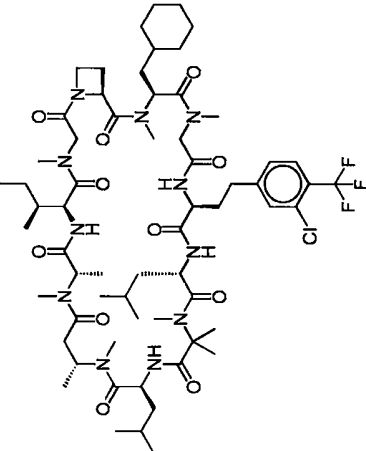
[5521]

	
1378	1380
	
1377	1379

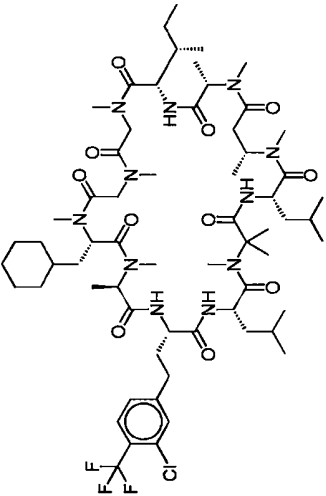
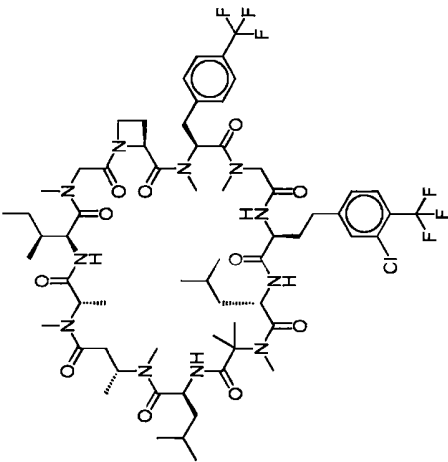
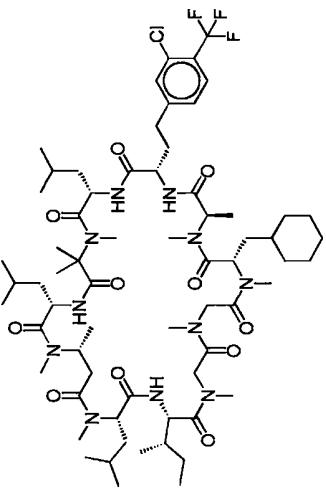
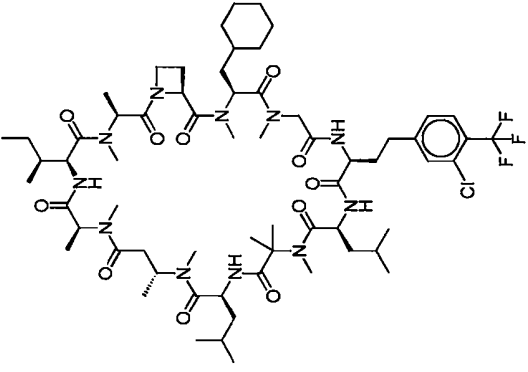
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1382	1384
	
1381	1383

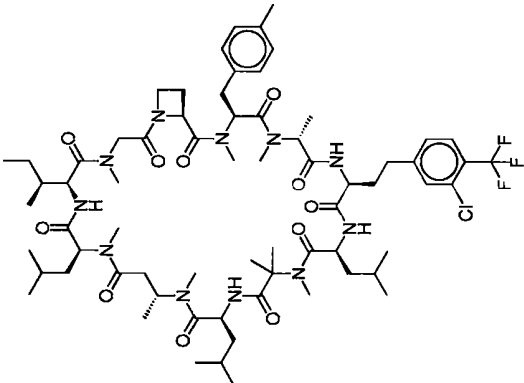
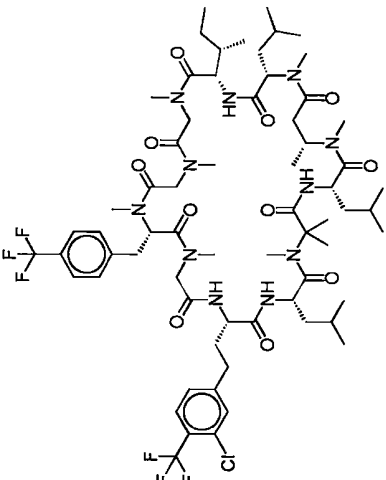
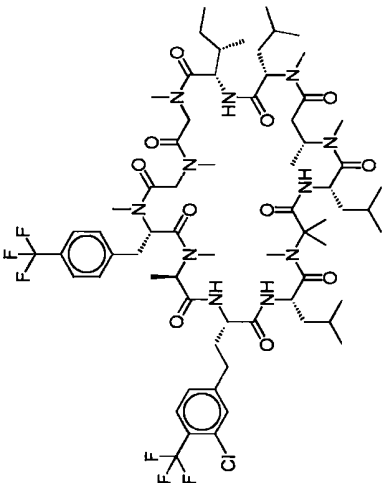
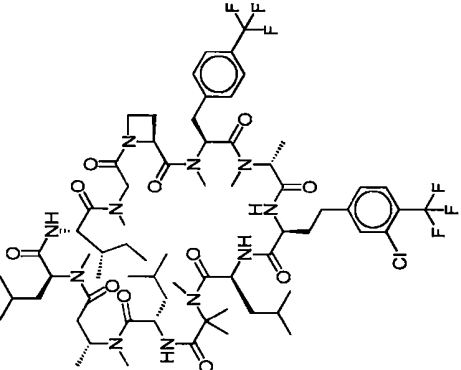
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1386	1388
	
1385	1387

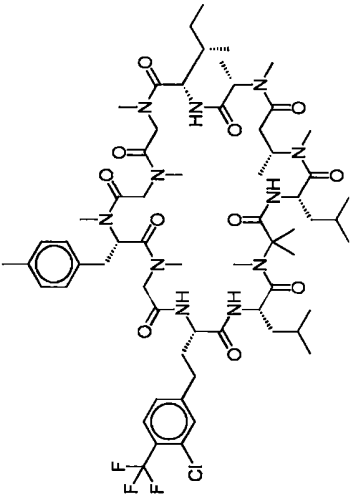
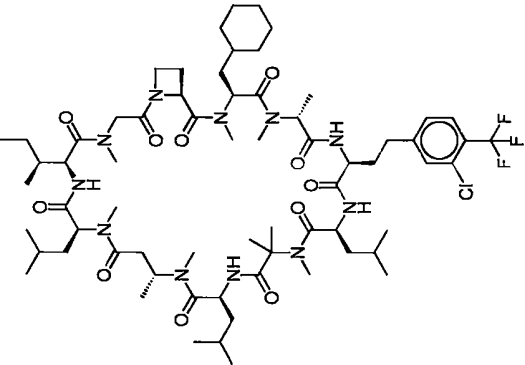
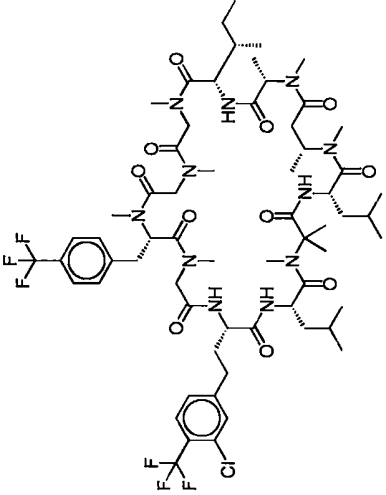
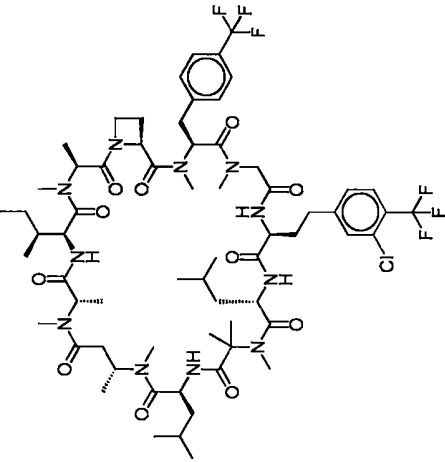
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1390	1392
	
1389	1391

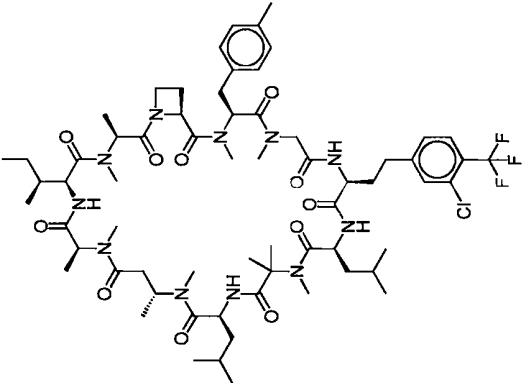
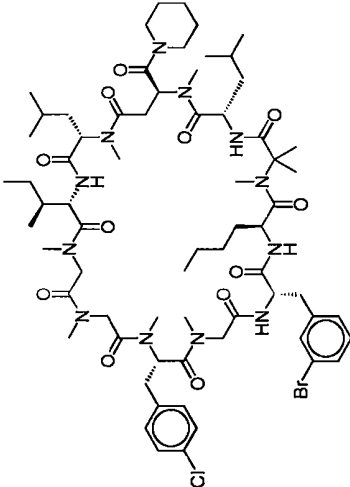
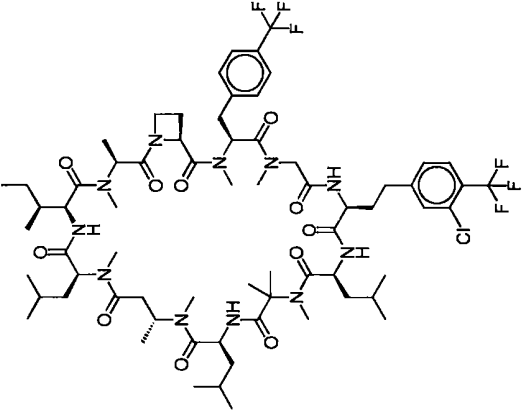
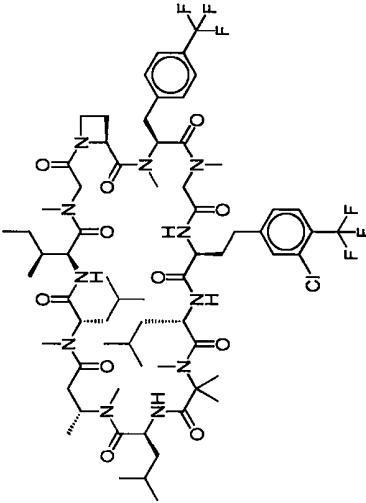
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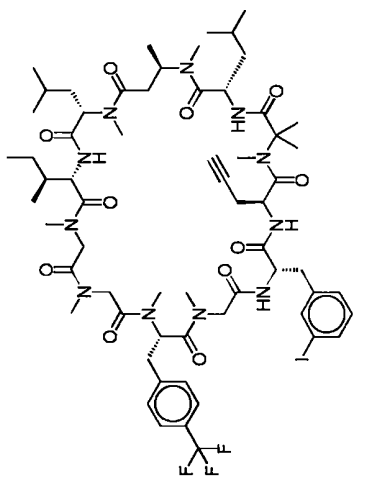
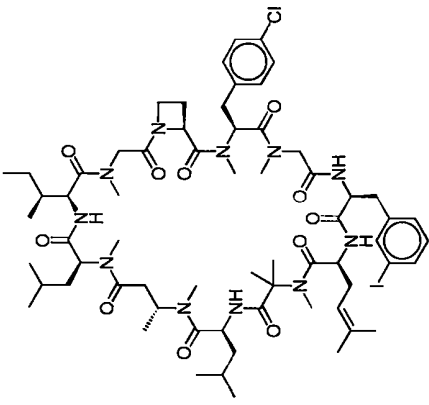
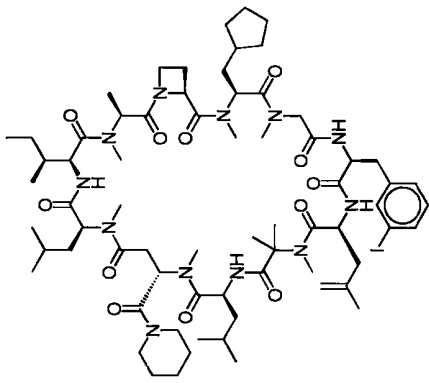
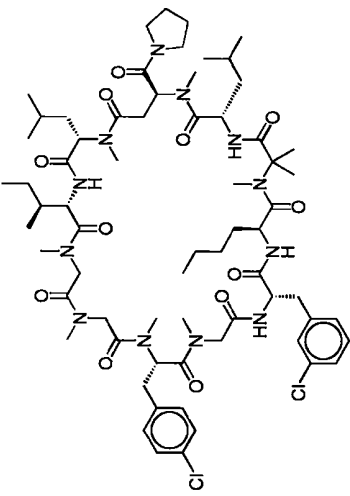
	
1394	1396
	
1393	1395

[5526]

	
1398	1400
	
1397	1399

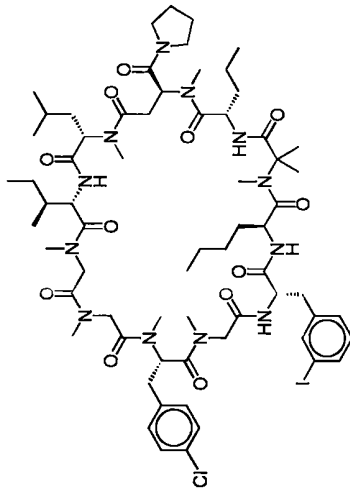
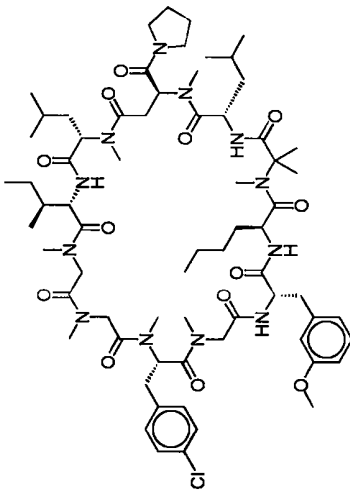
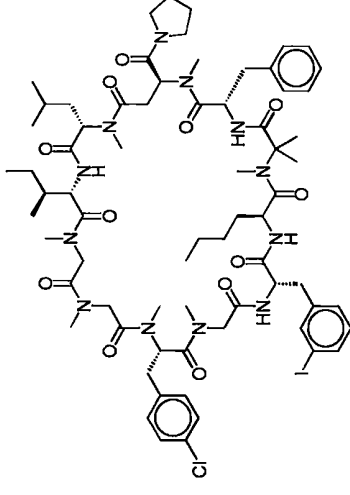
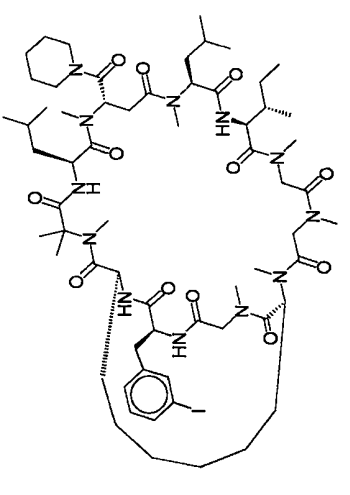
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1402	1404
	
1401	1403

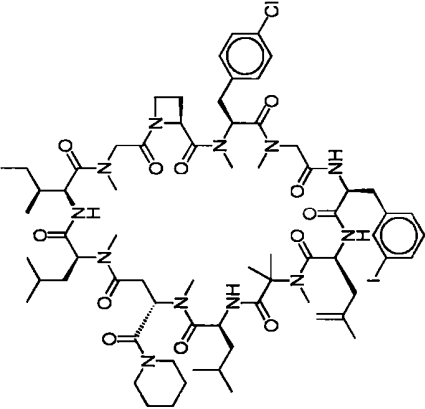
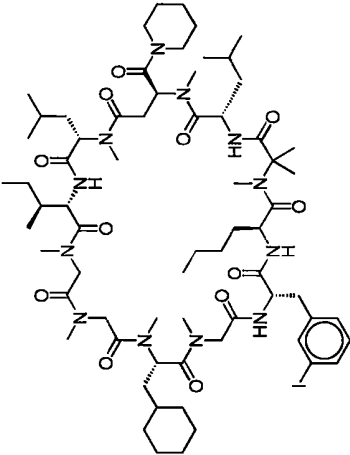
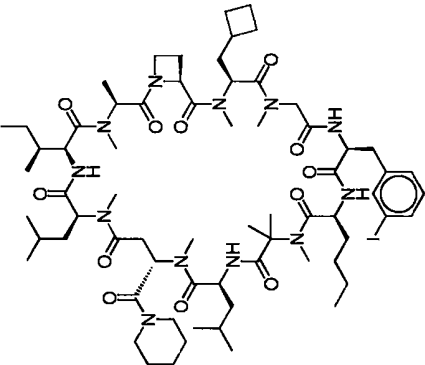
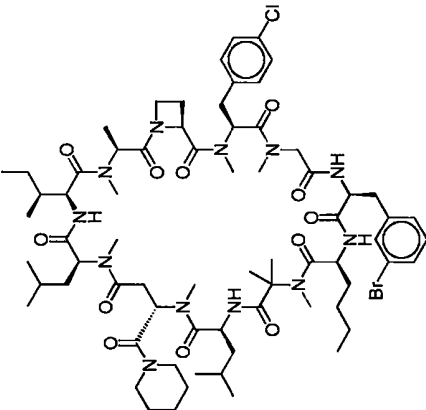
	
1406	1408
	
1405	1407

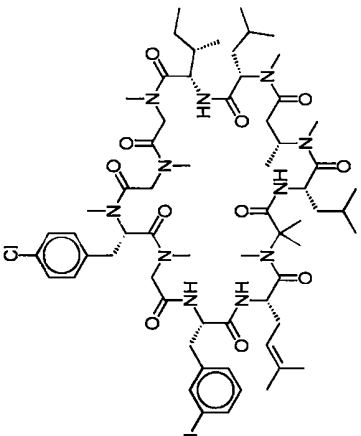
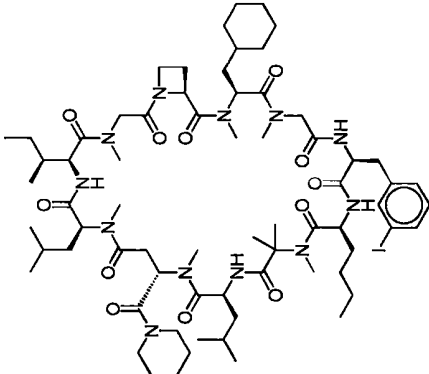
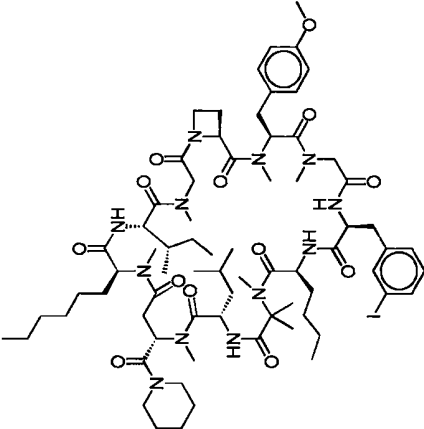
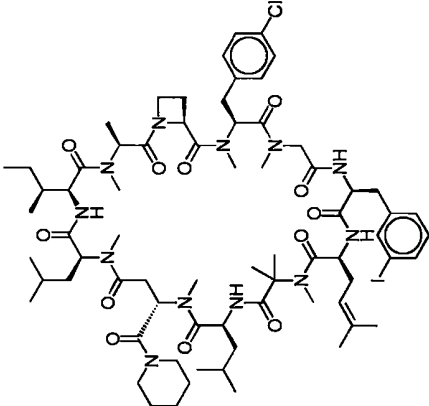
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[5529]

	
1410	1412
	
1409	1411

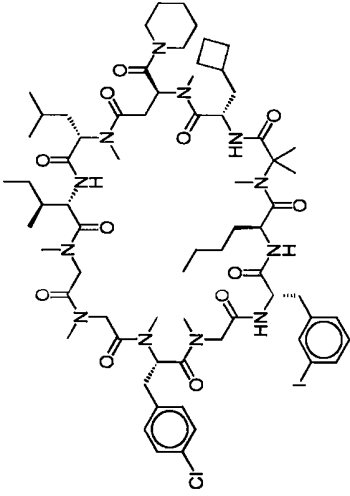
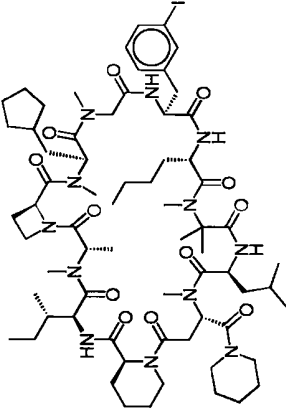
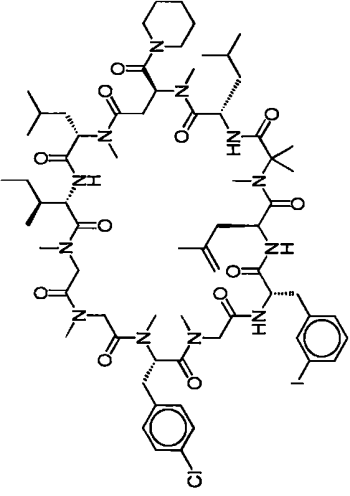
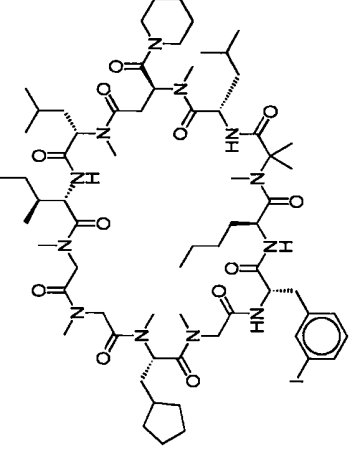
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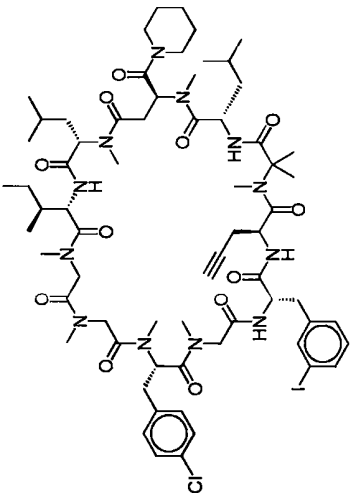
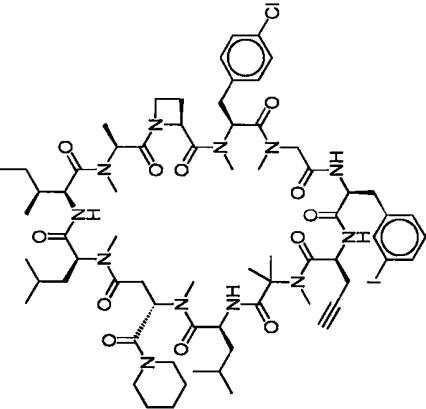
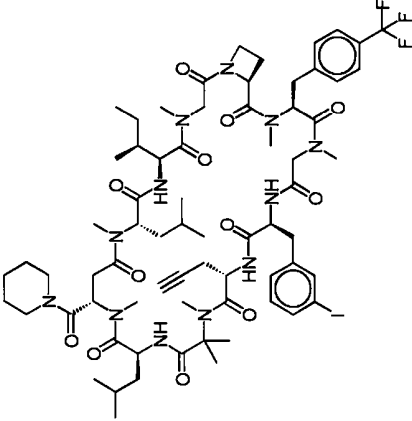
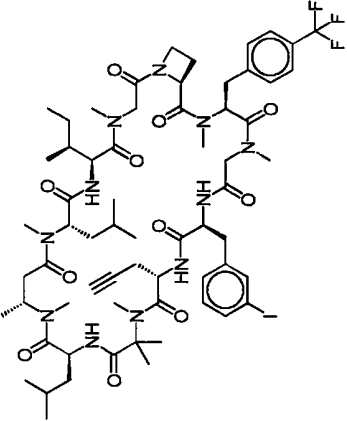
	
1414	1416
	
1413	1415

	
1418	1420
	
1417	1419

[5531]

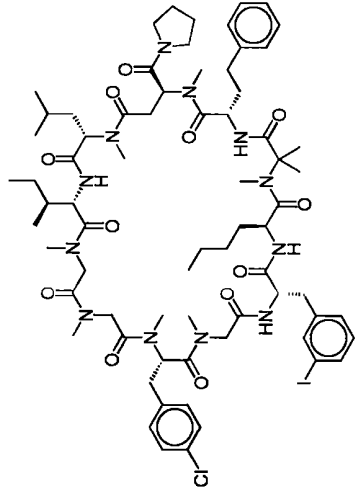
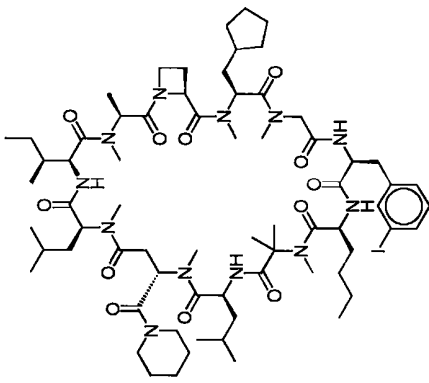
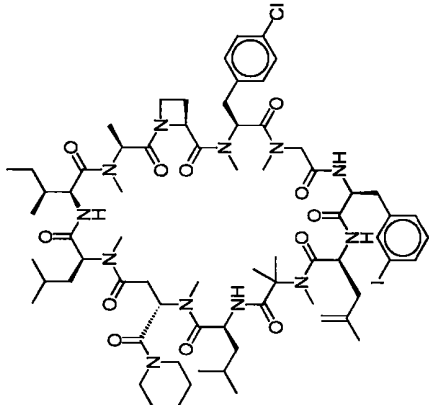
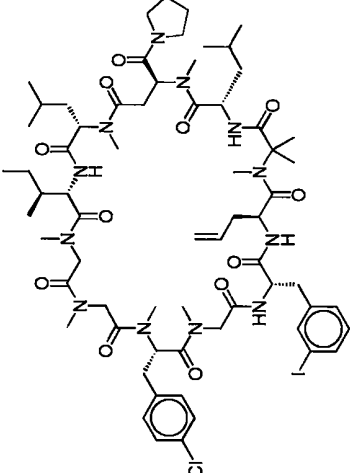
[5532]

	
1422	1424
	
1421	1423

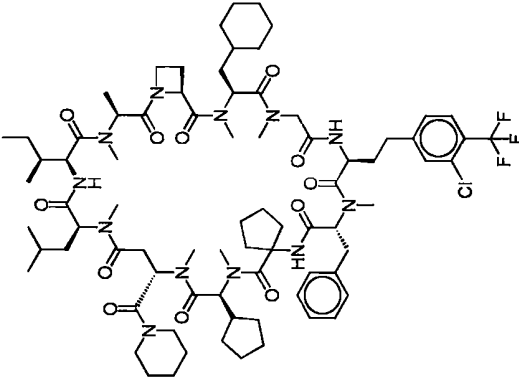
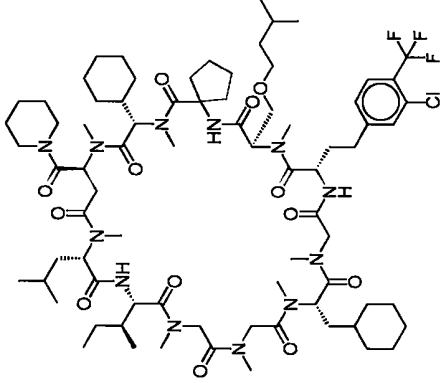
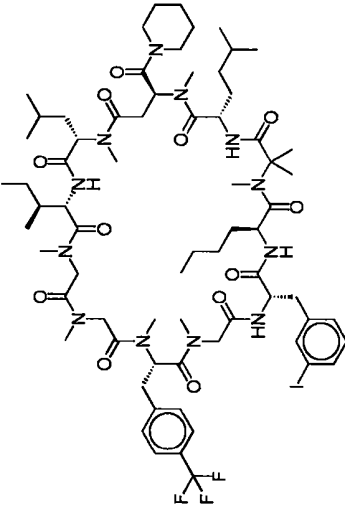
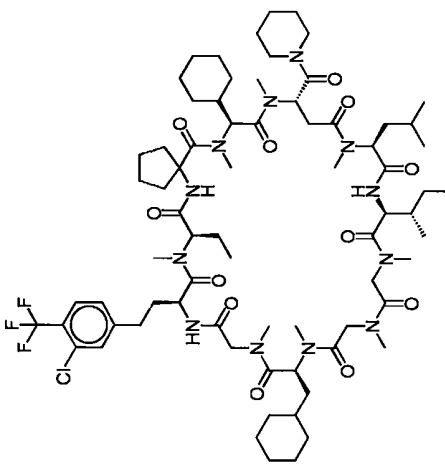
	
1426	1428
	
1425	1427

[5533]

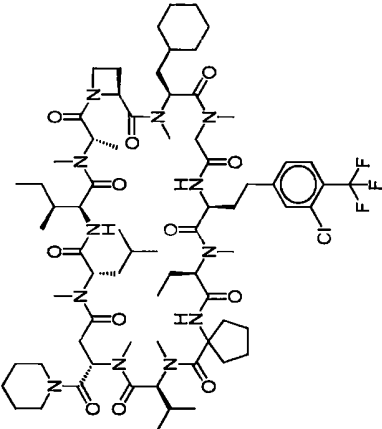
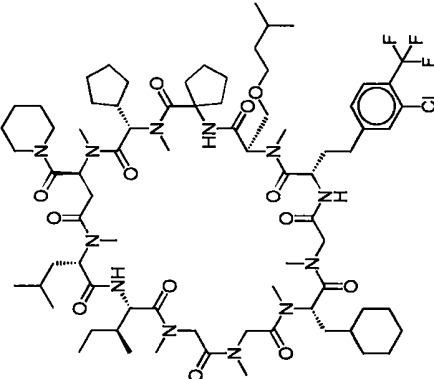
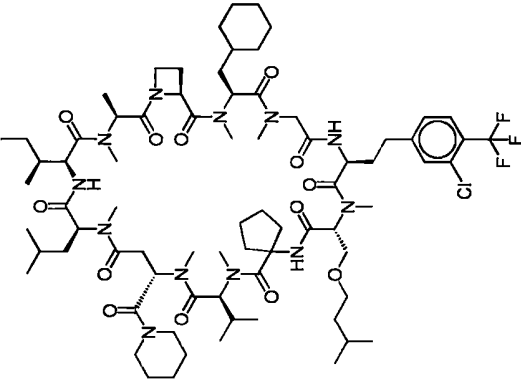
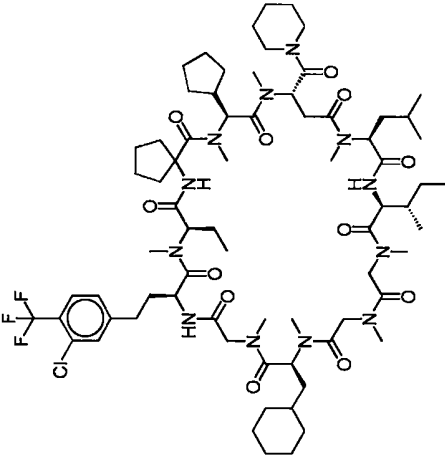
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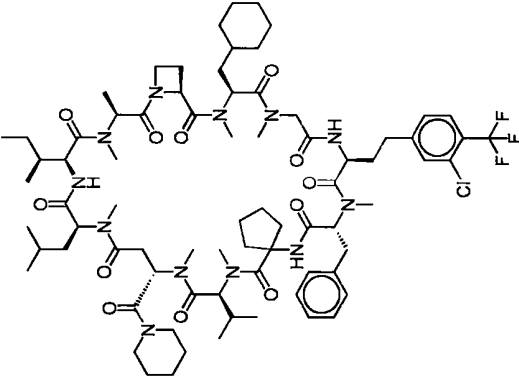
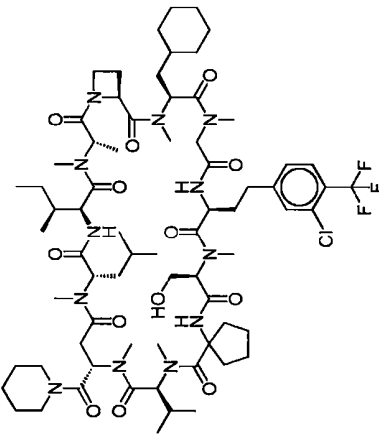
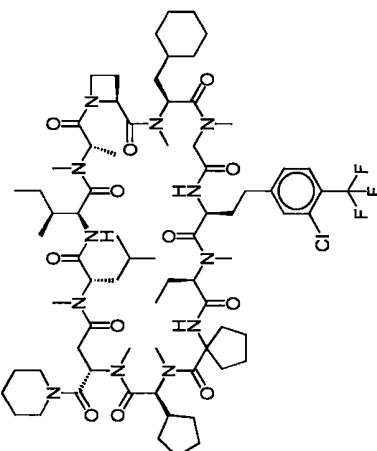
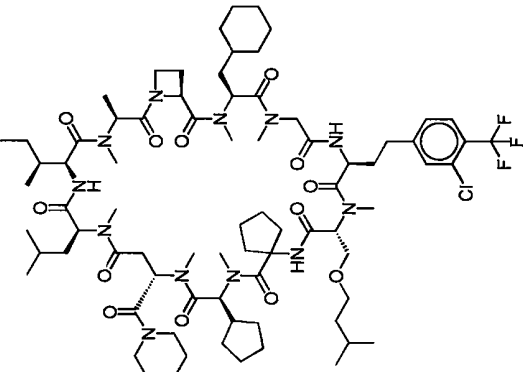
	
1430	1432
	
1429	1431

[5535]

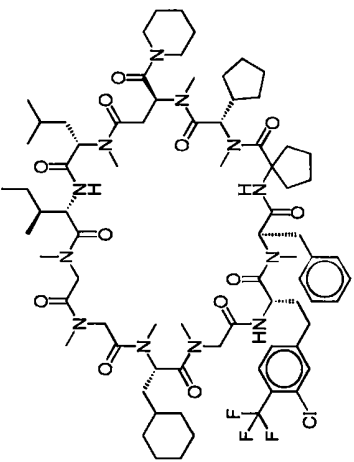
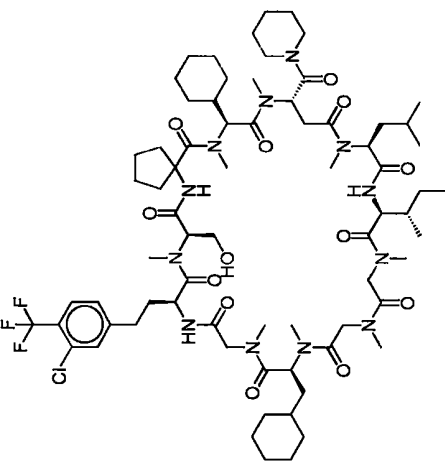
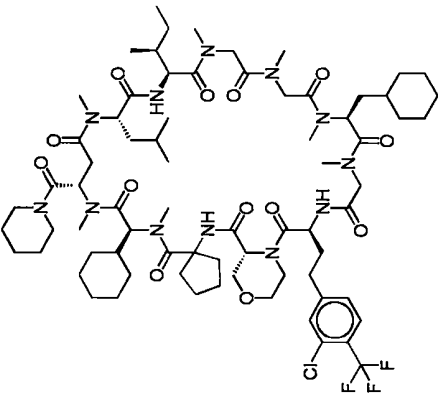
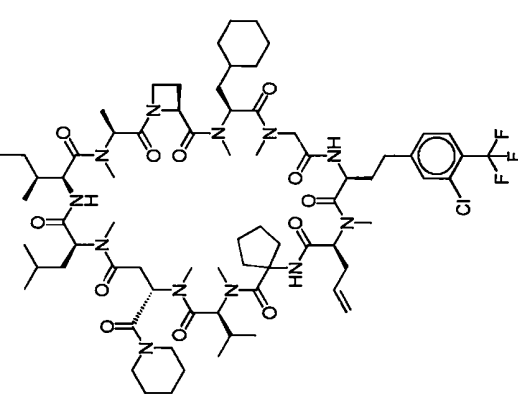
	
1434	1436
	
1433	1435

[5536]

	
1438	1440
	
1437	1439

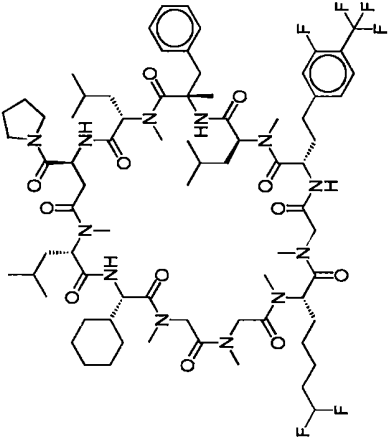
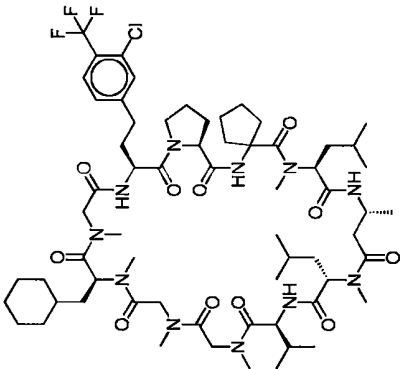
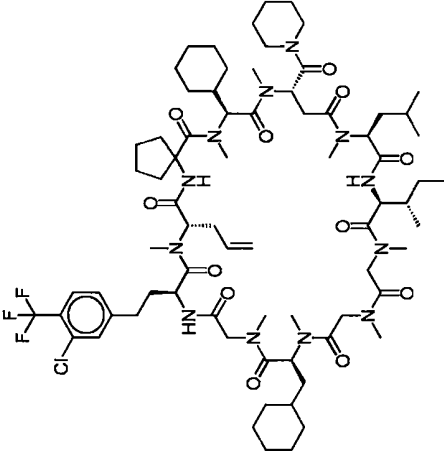
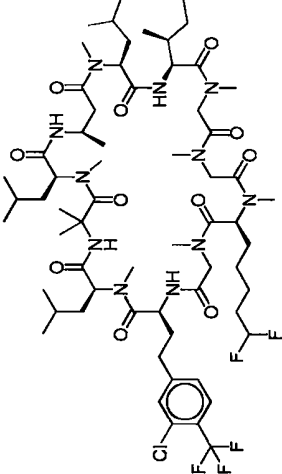
	
1442	1444
	
1441	1443

[5537]

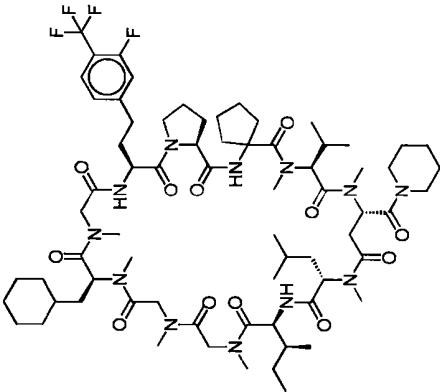
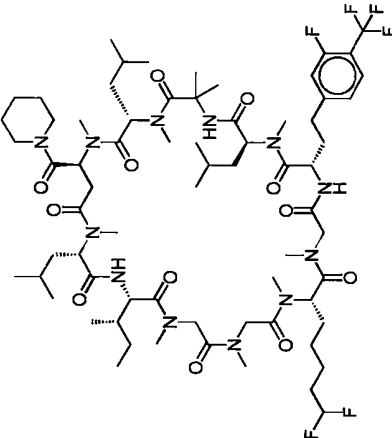
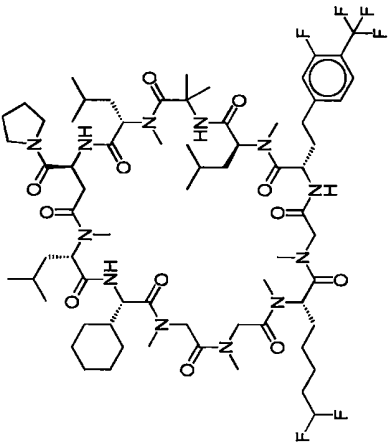
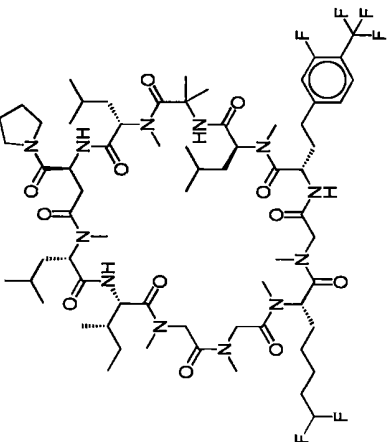
	
1446	1448
	
1445	1447

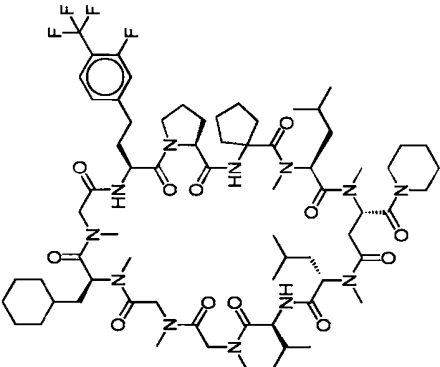
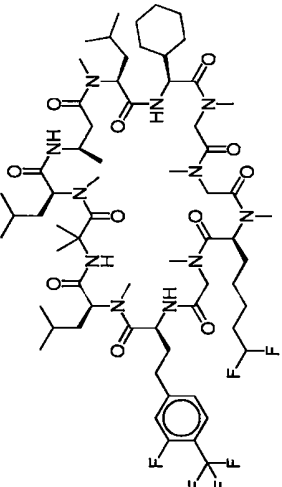
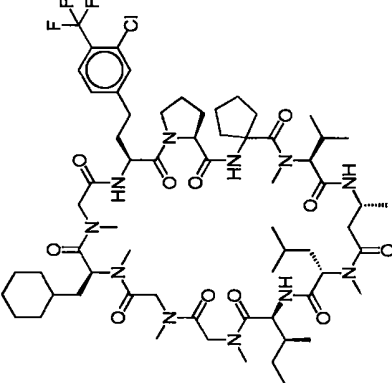
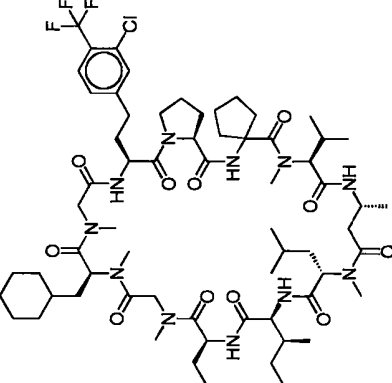
[5538]

[5539]

	
1450	1452
	
1449	1451

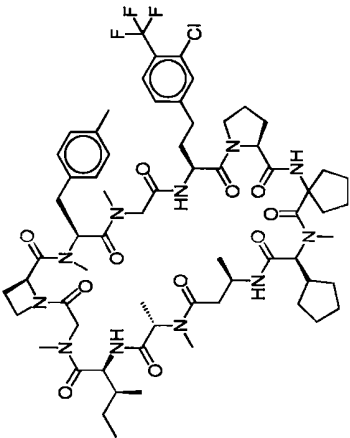
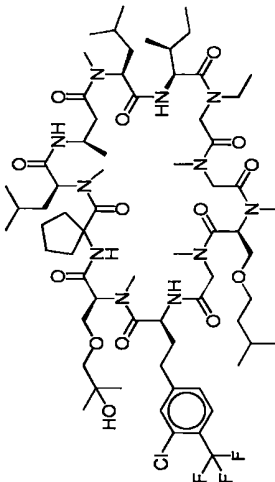
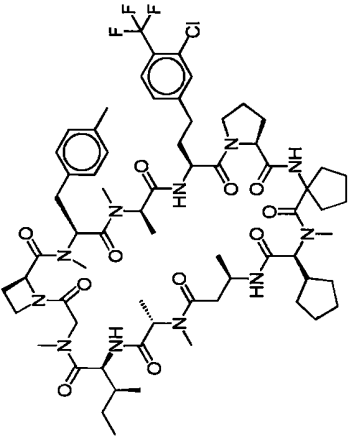
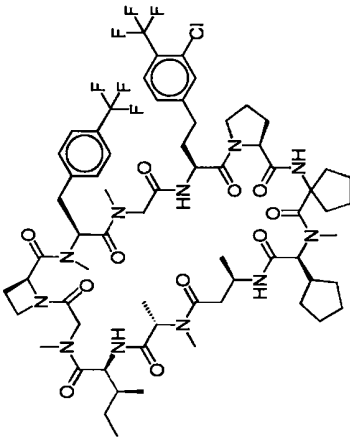
[5540]

	
1454	1456
	
1453	1455

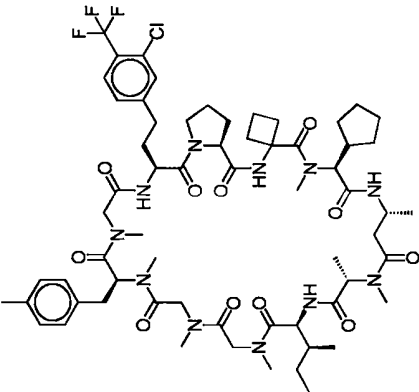
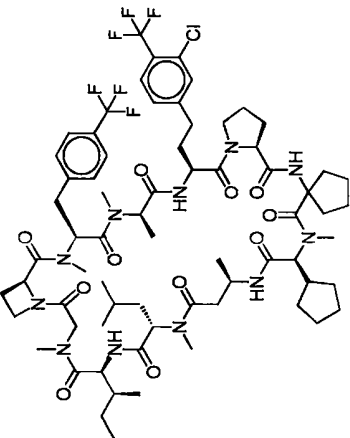
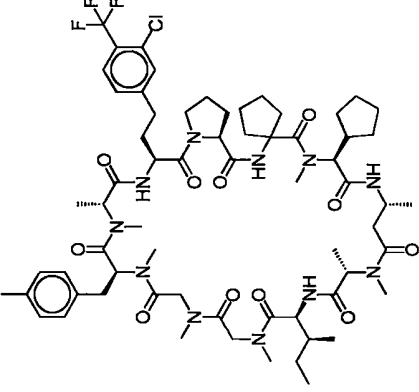
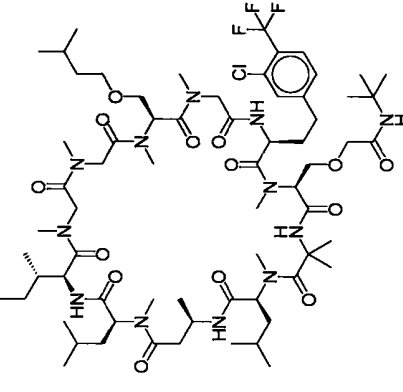
	
1458	1460
	
1457	1459

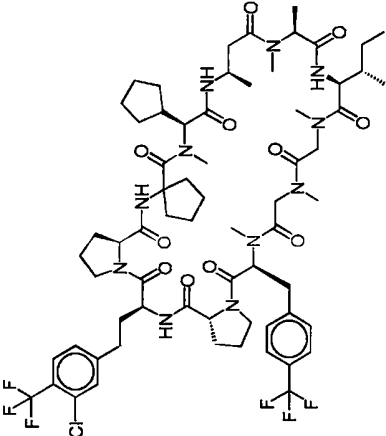
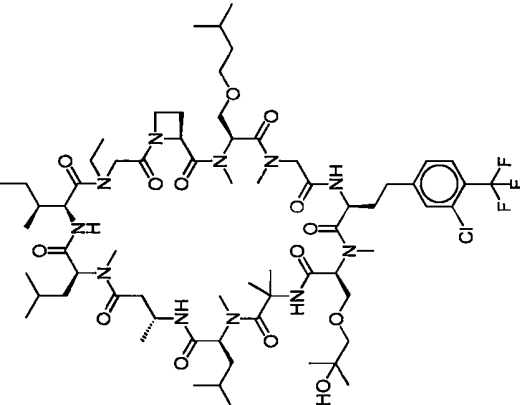
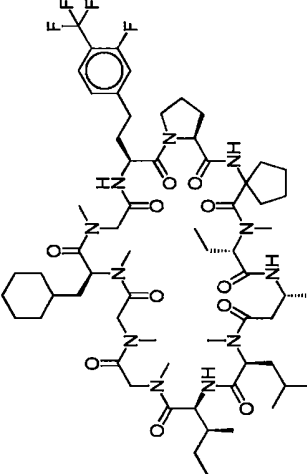
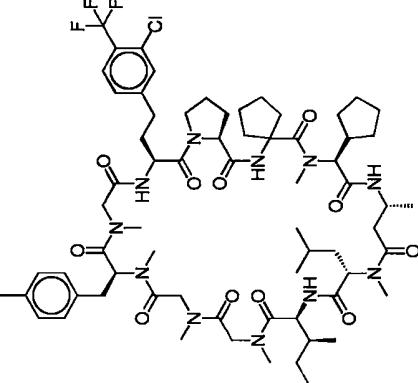
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[5542]

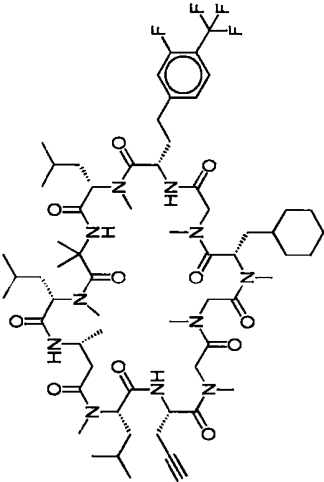
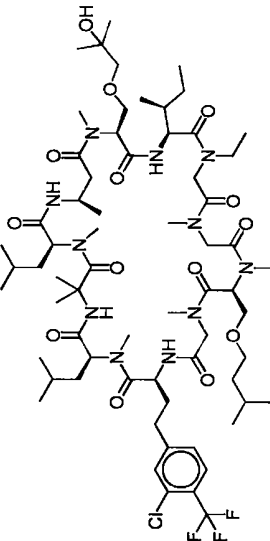
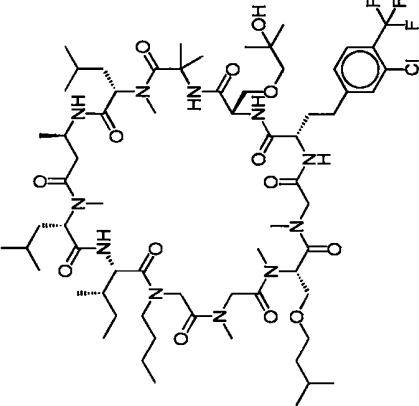
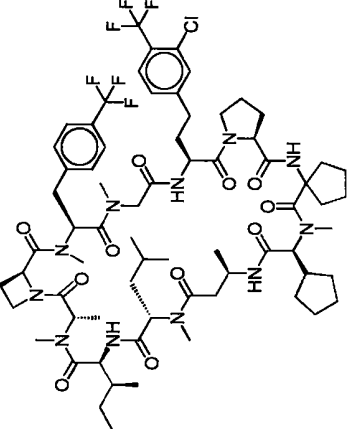
	
1462	1464
	
1461	1463

[5543]

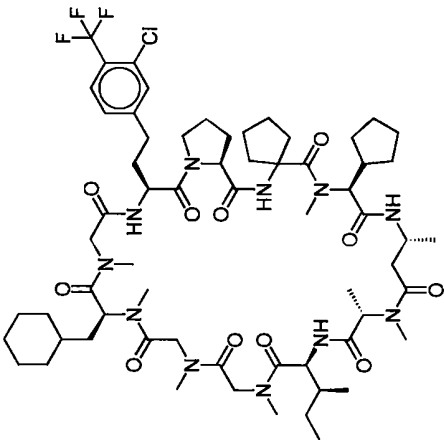
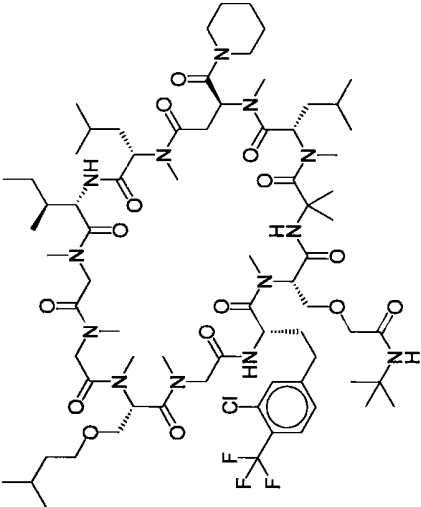
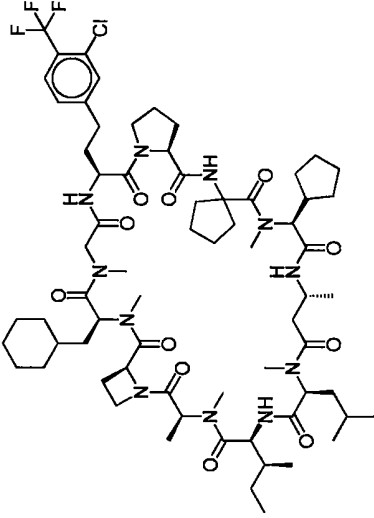
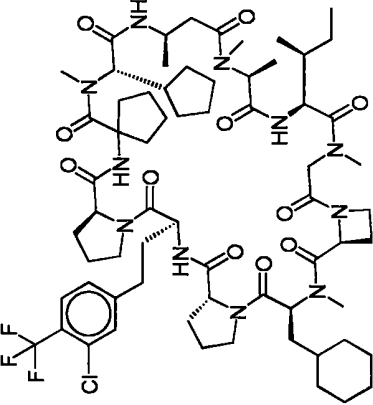
	
1466	1468
	
1465	1467

	
1470	1472
	
1469	1471

[5544]

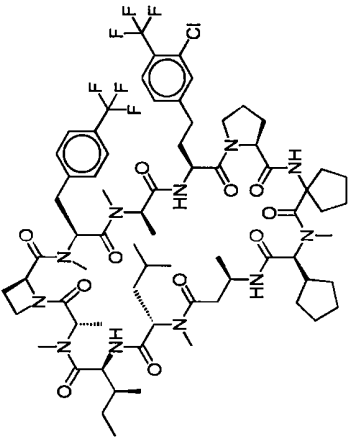
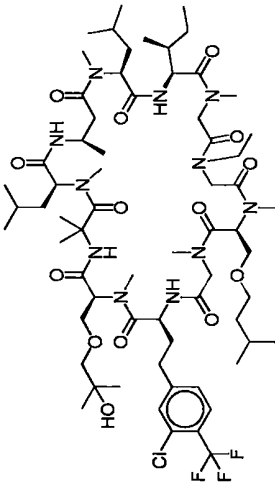
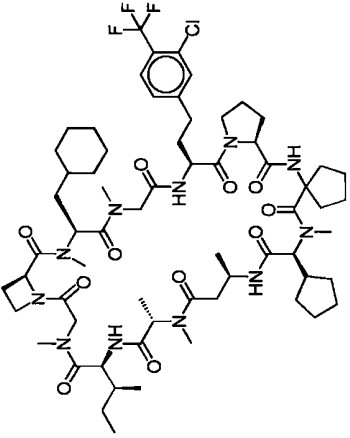
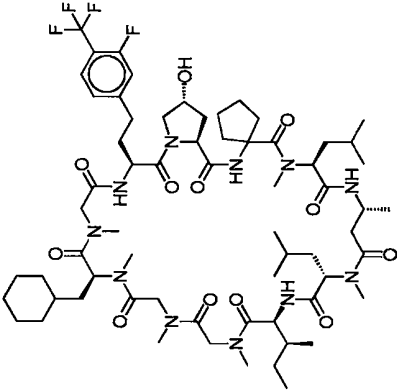
	
1474	1476
	
1473	1475

[5545]

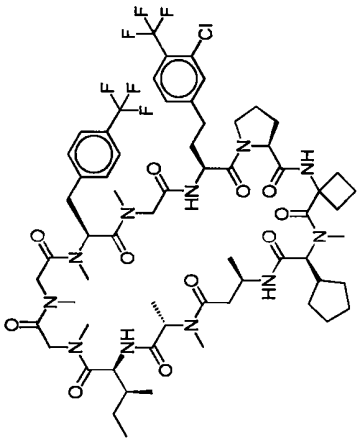
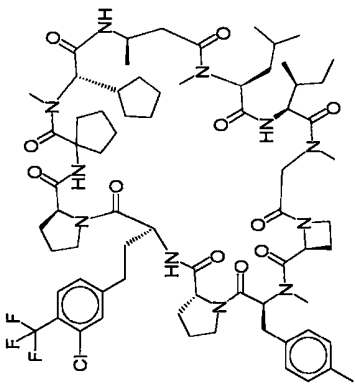
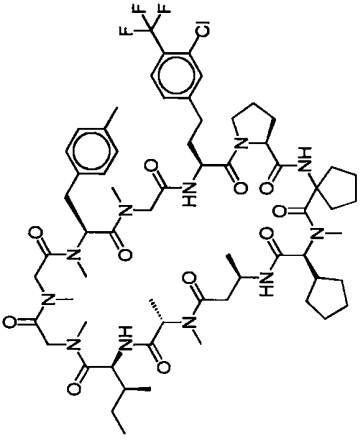
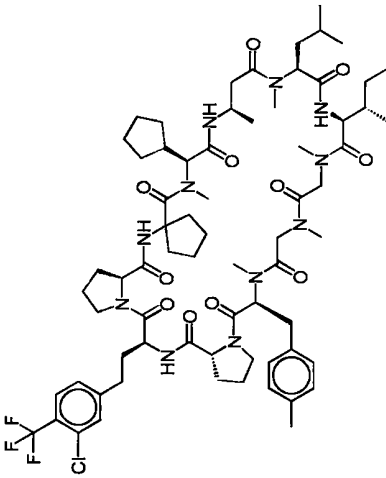
	
1478	1480
	
1477	1479

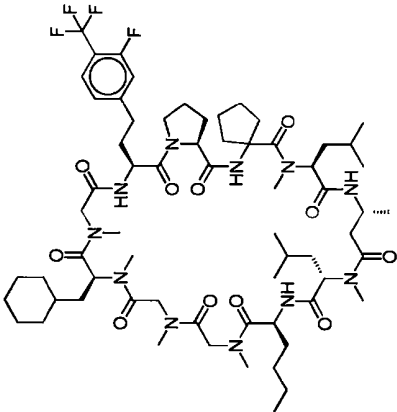
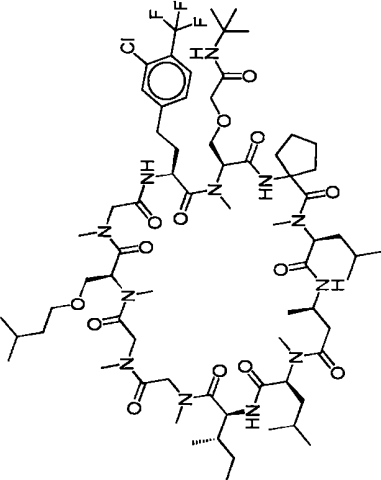
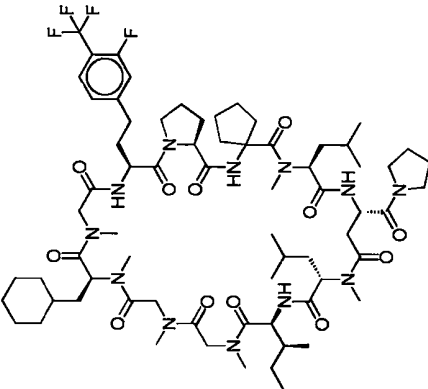
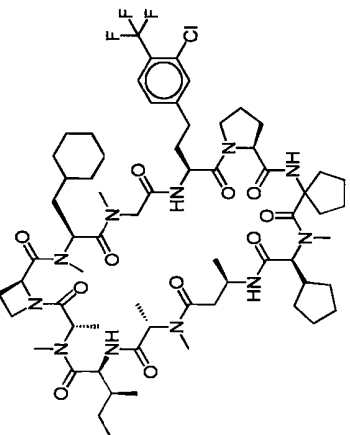
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[5547]

	
1482	1484
	
1481	1483

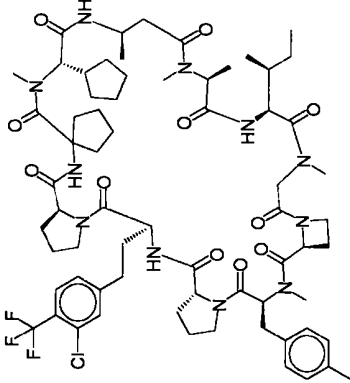
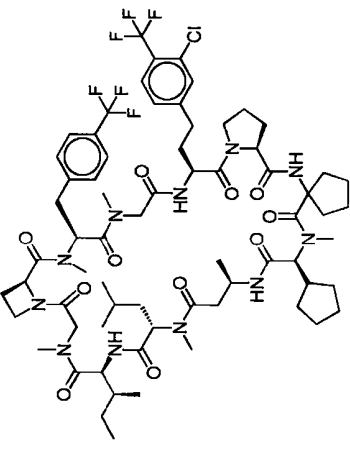
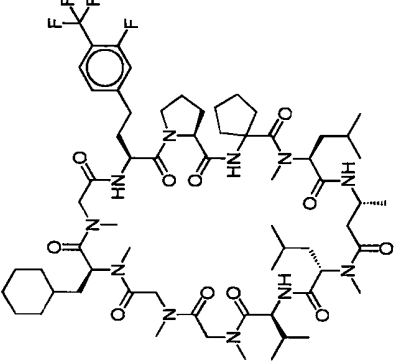
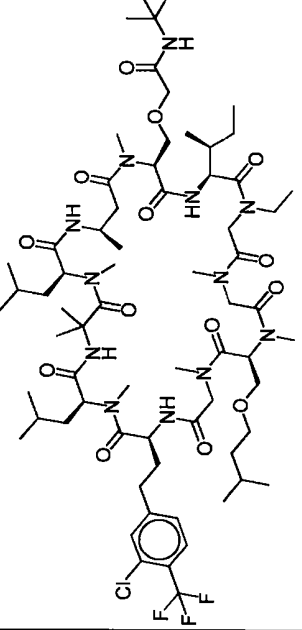
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1486	1488
	
1485	1487

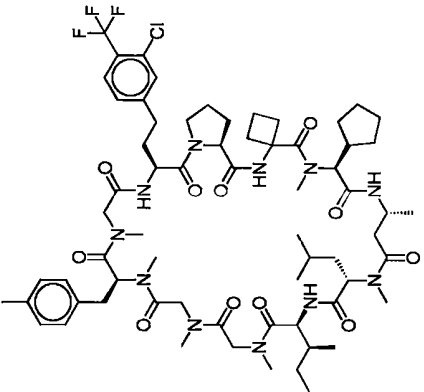
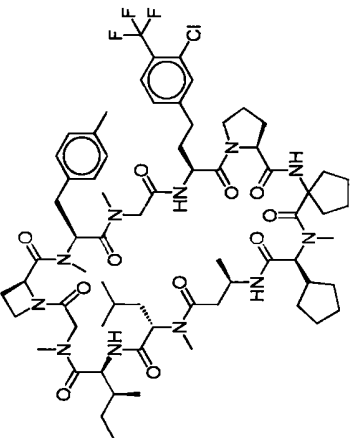
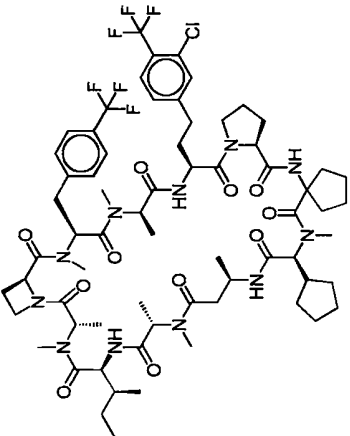
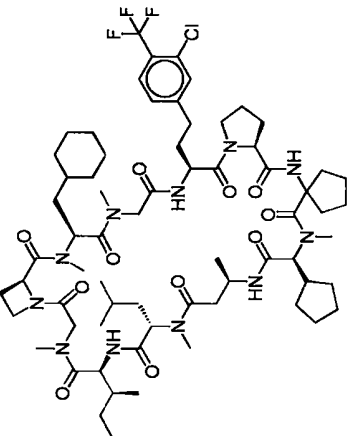
	
1490	1492
	
1489	1491

[5549]

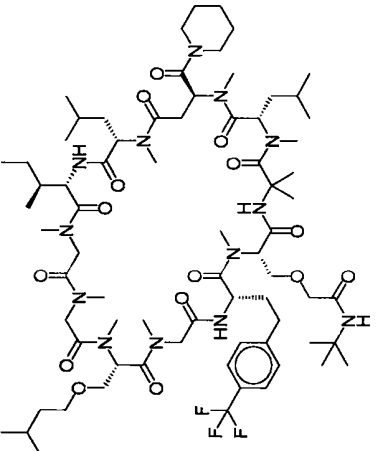
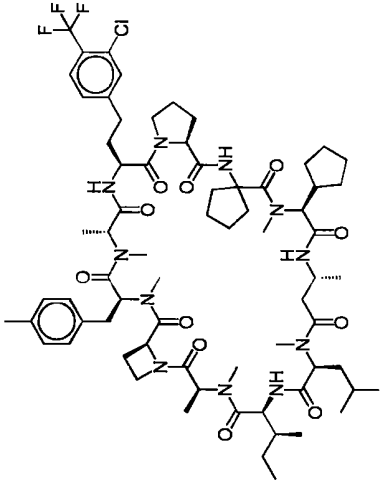
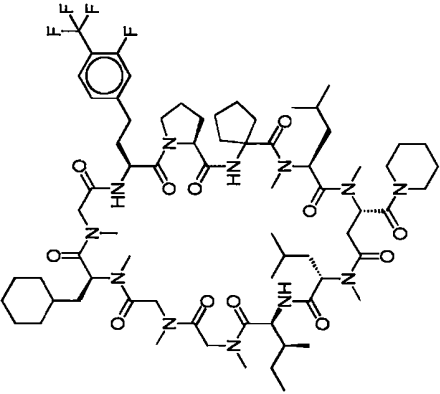
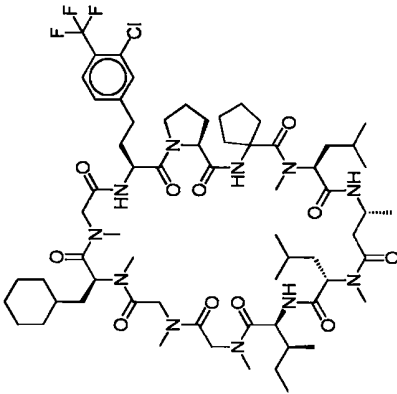
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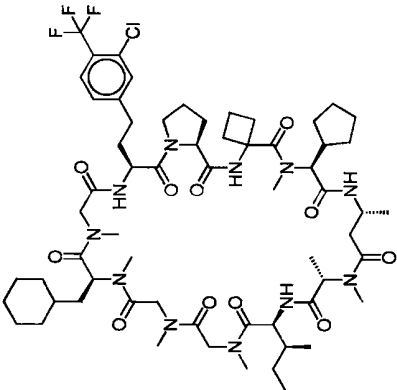
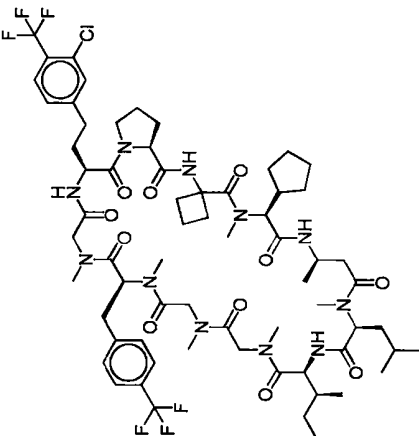
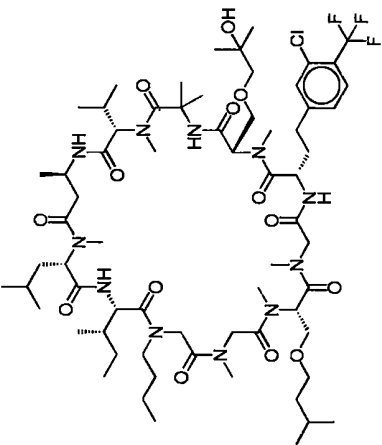
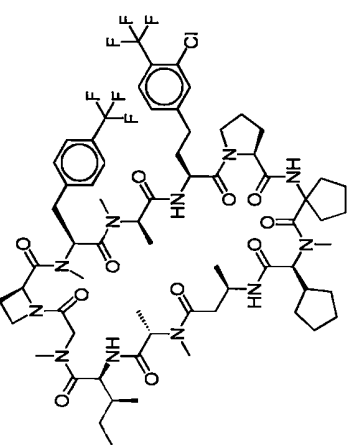
	
1494	1496
	
1493	1495

[5551]

	
1498	1500
	
1497	1499

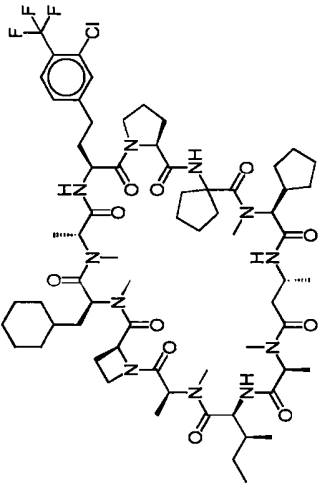
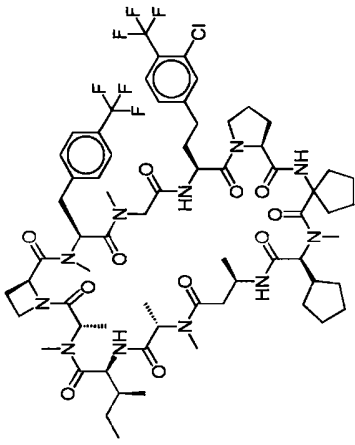
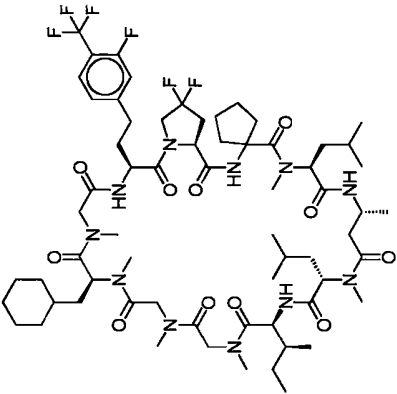
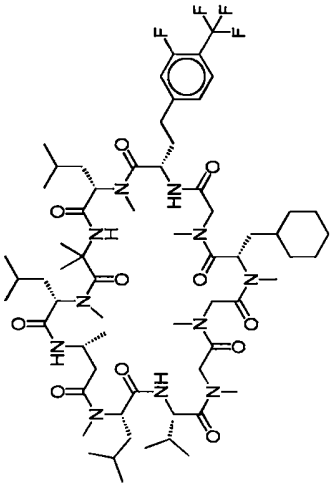
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1502	1504
	
1501	1503

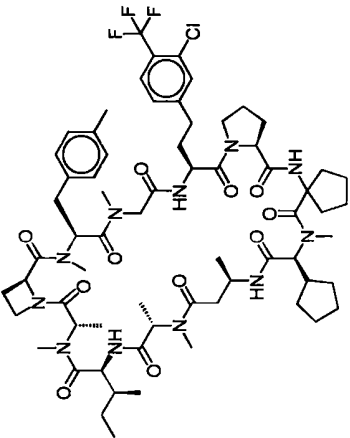
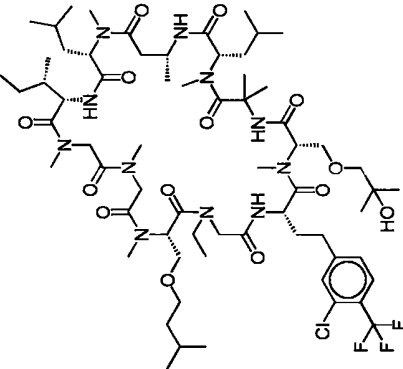
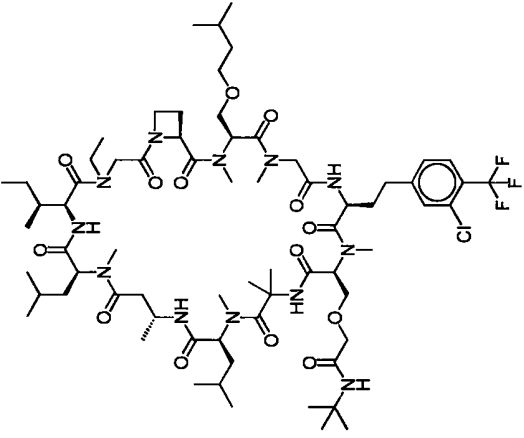
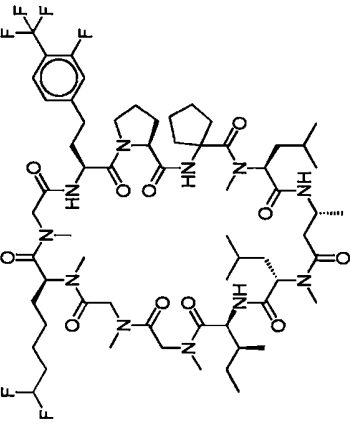
	
1506	1508
	
1505	1507

[5553]

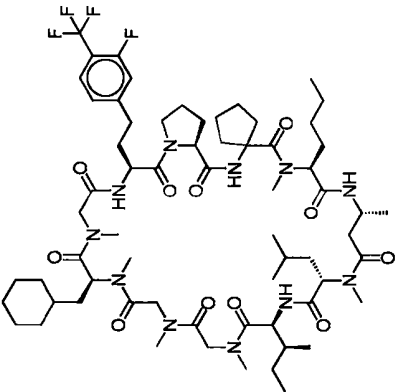
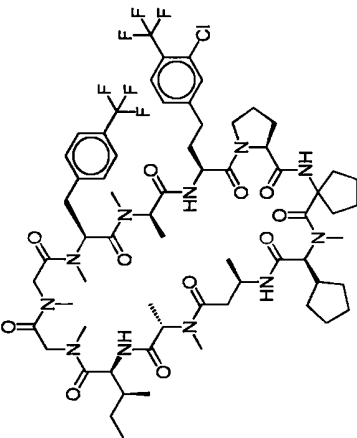
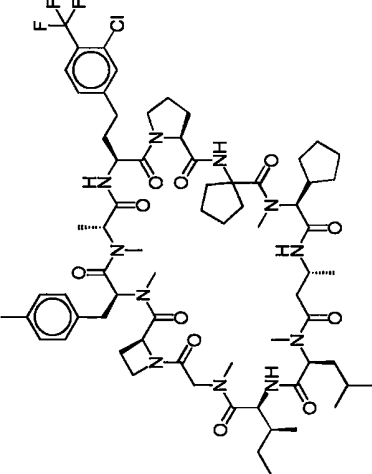
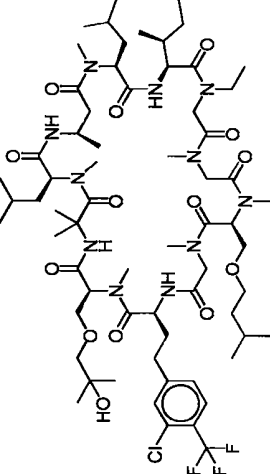
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1510	1512
	
1509	1511

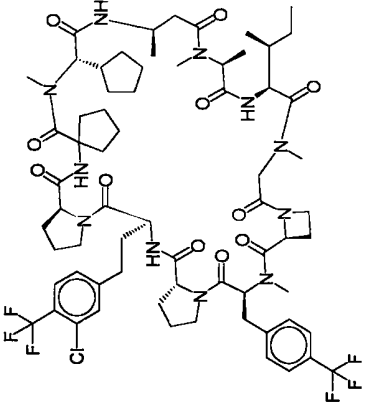
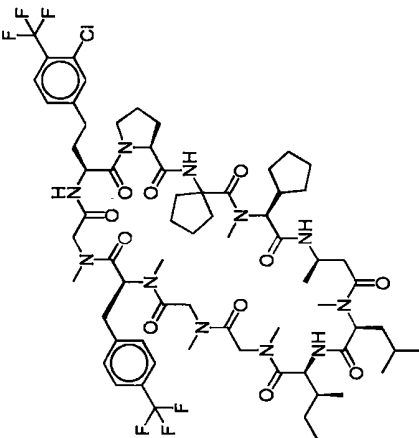
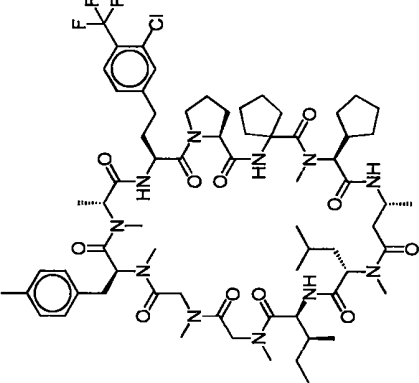
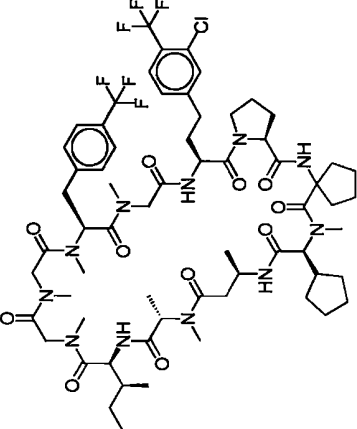
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1514	1516
	
1513	1515

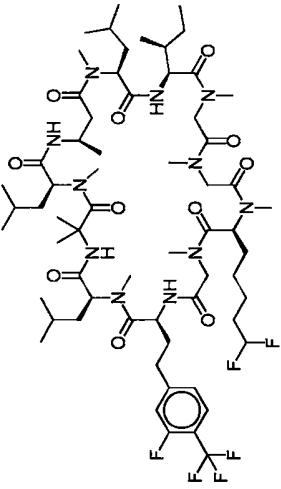
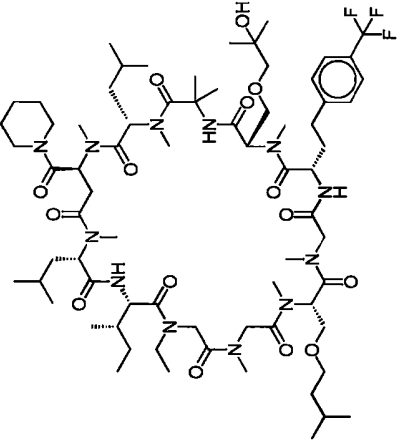
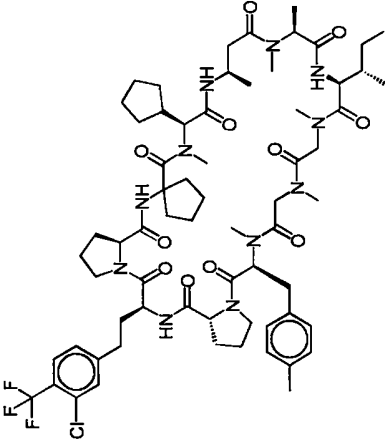
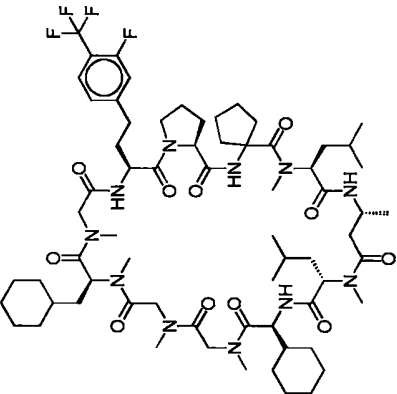
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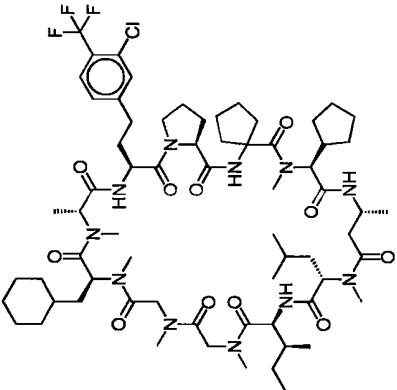
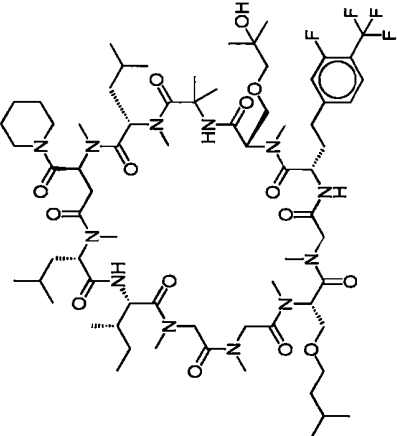
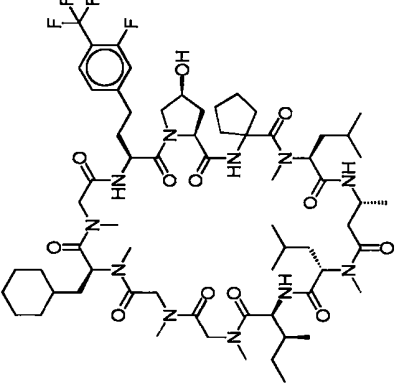
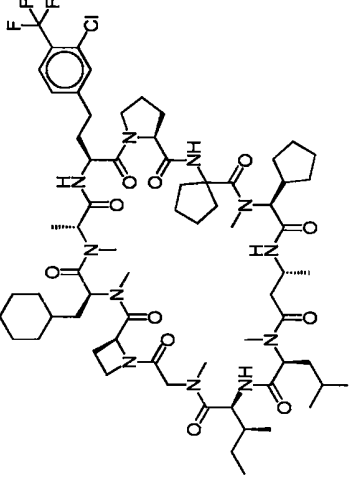
	
1518	1520
	
1517	1519

[5557]

	
1522	1524
	
1521	1523

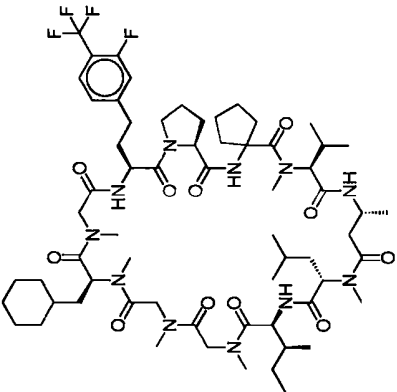
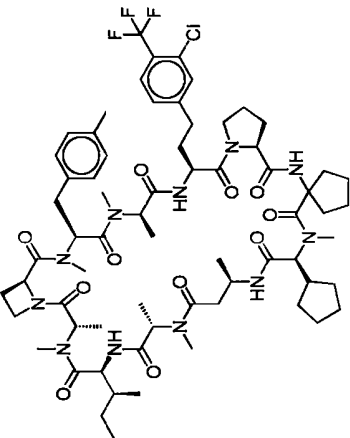
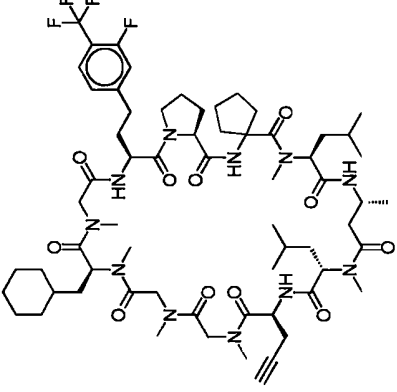
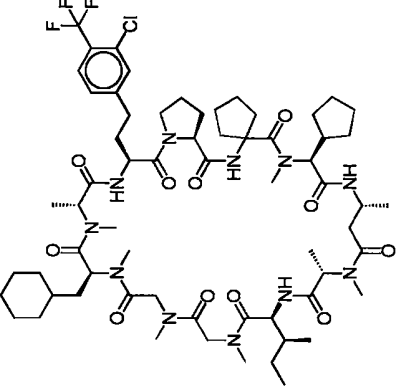
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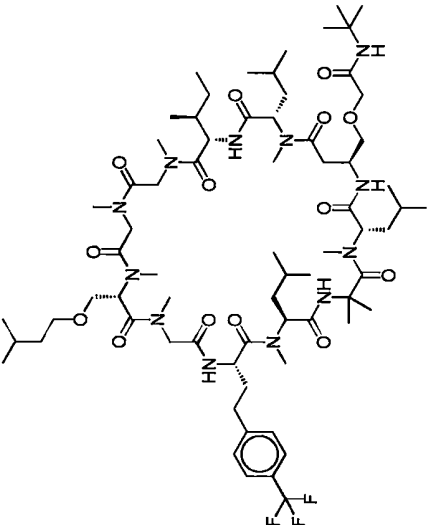
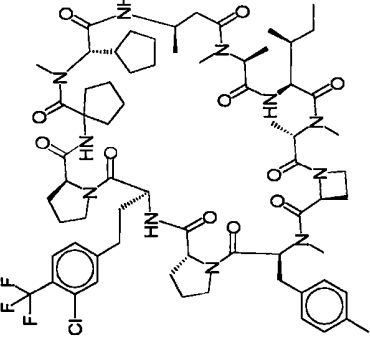
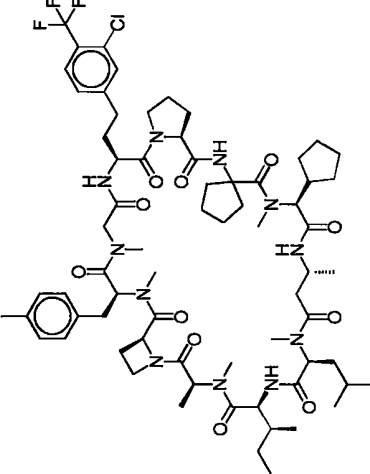
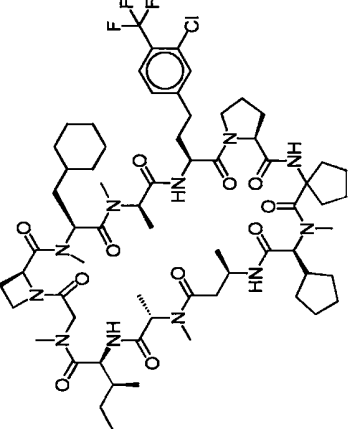
	
1526	1528
	
1525	1527

	
1530	1532
	
1529	1531

[5559]

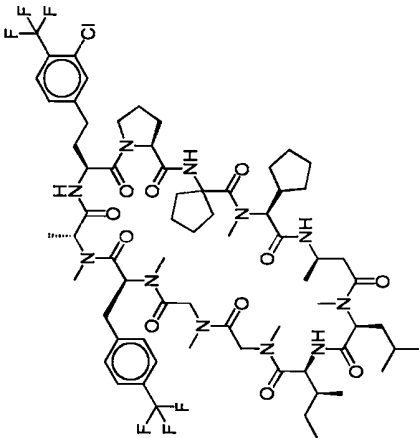
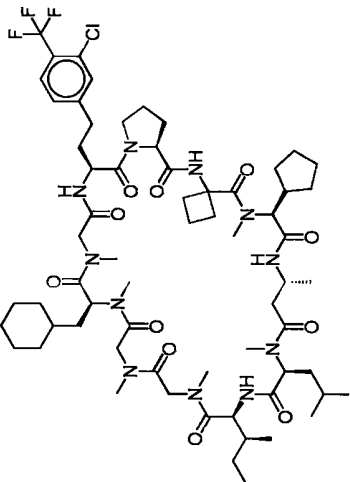
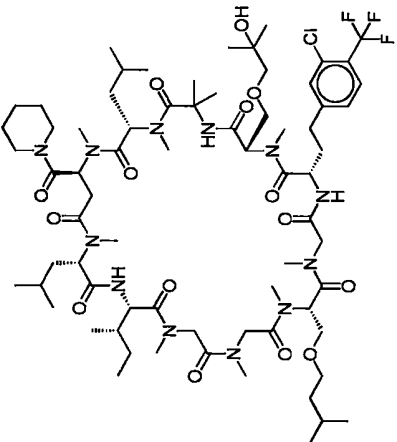
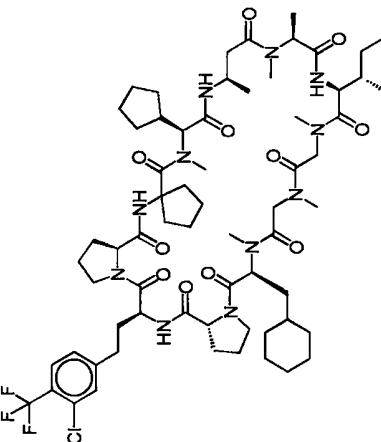
[5560]

	
1534	1536
	
1533	1535

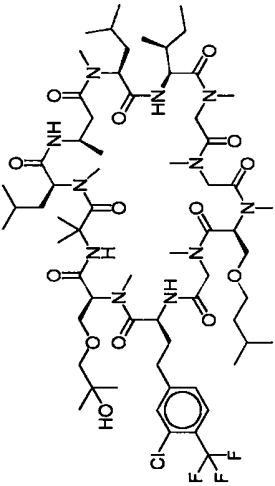
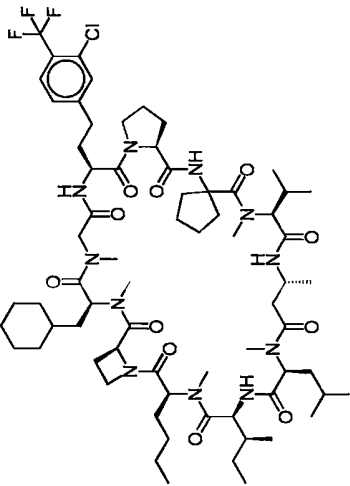
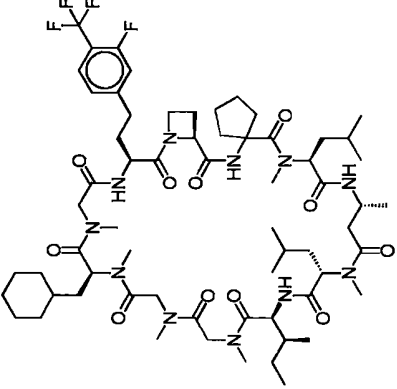
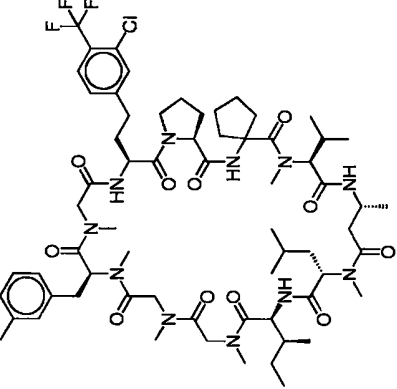
	
1538	1540
	
1537	1539

[5561]

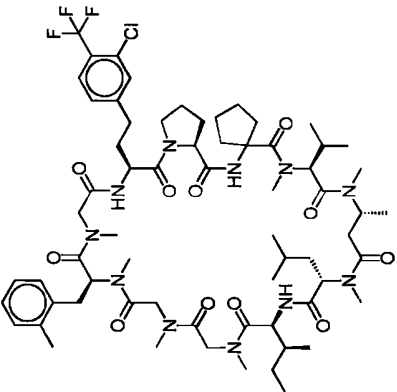
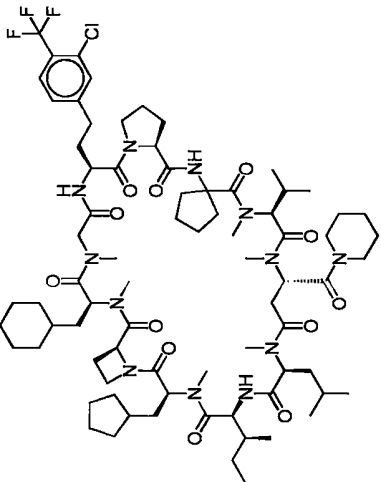
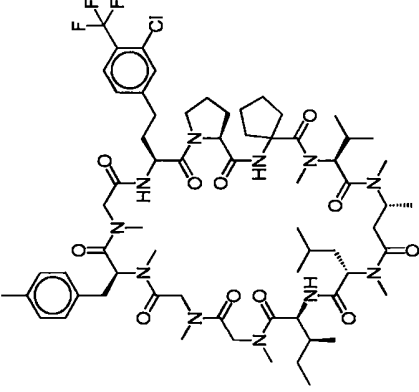
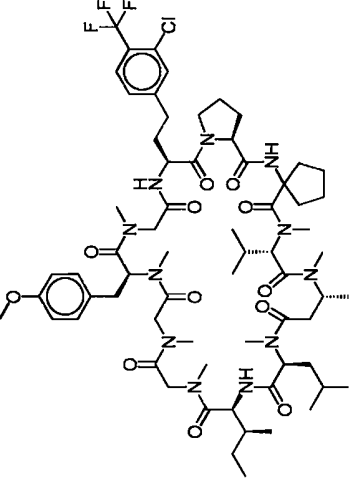
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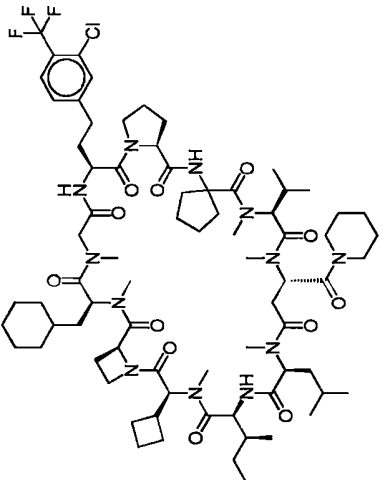
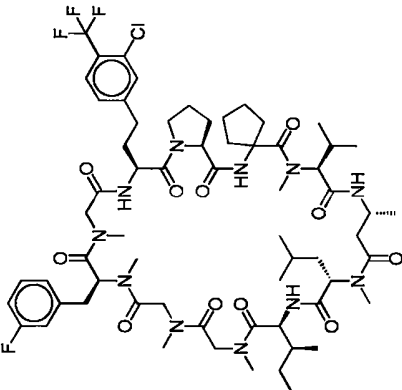
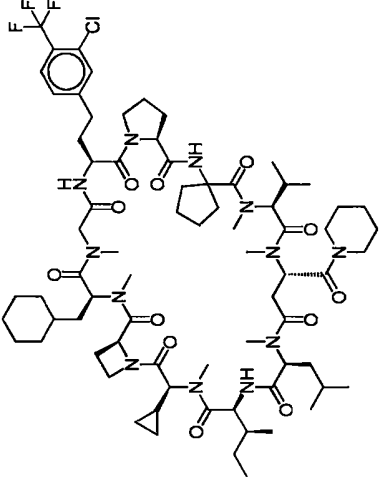
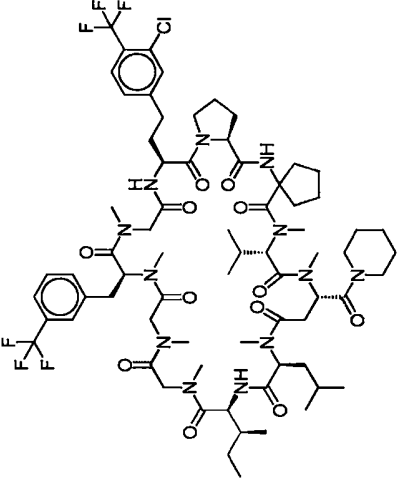
	
1542	1544
	
1541	1543

[5563]

	
1546	1548
	
1545	1547

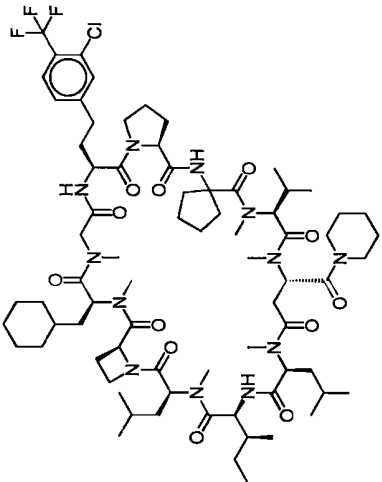
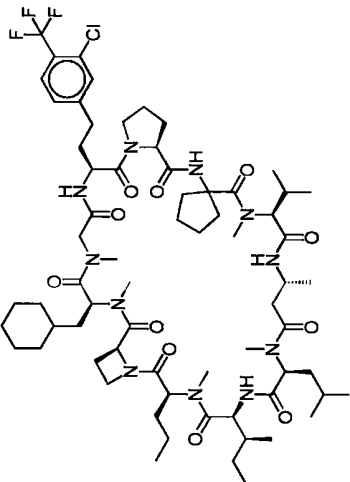
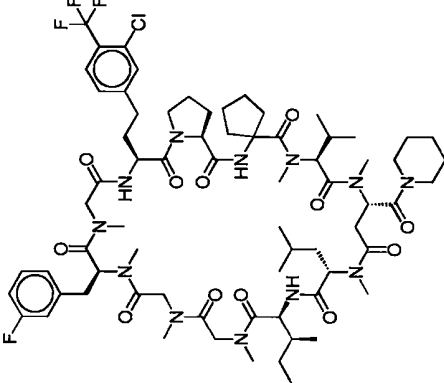
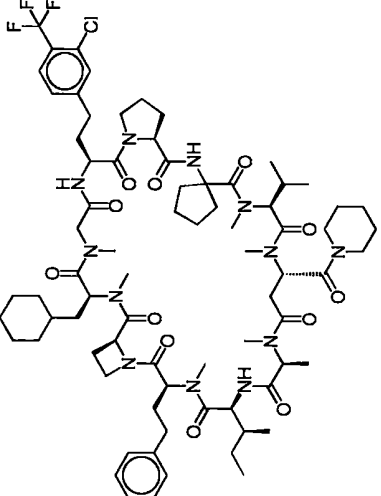
[5564]

	
1550	1552
	
1549	1551

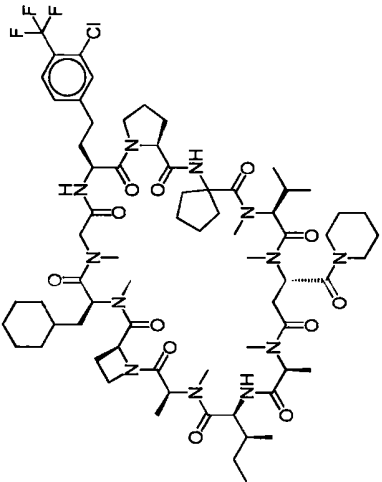
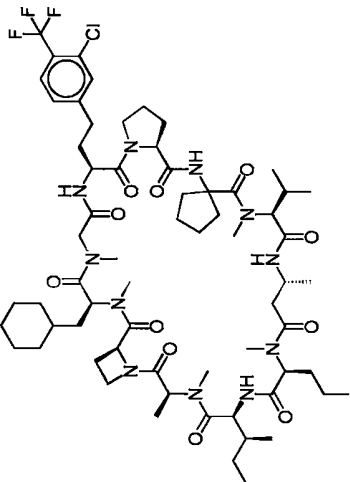
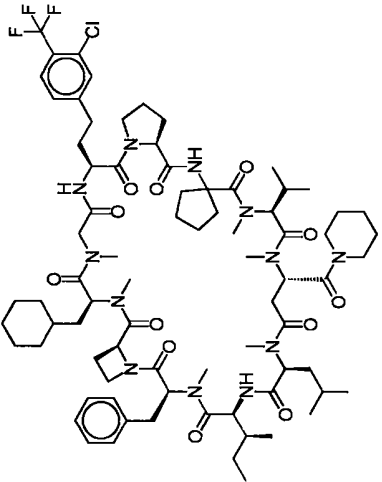
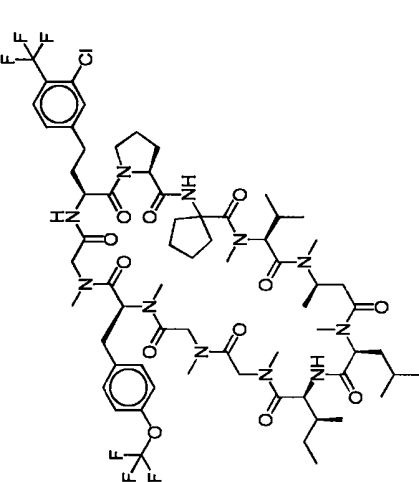
	
1554	1556
	
1553	1555

[5565]

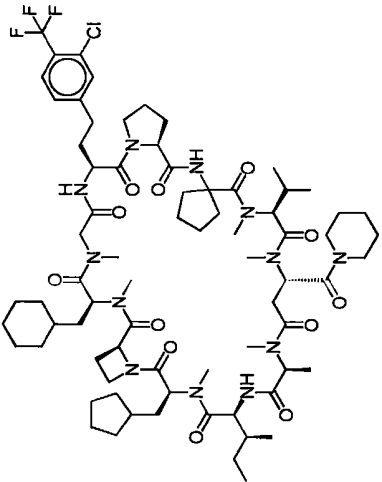
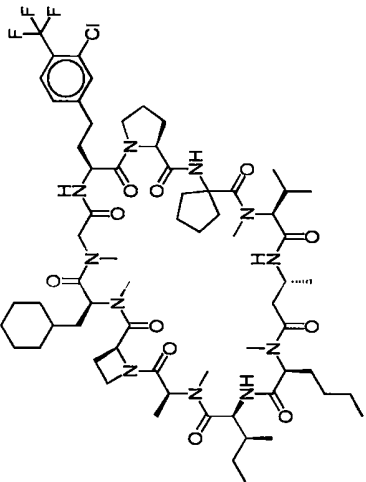
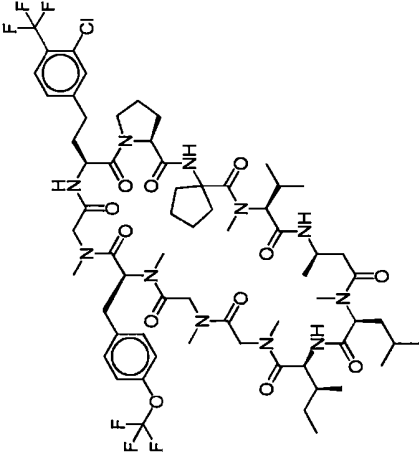
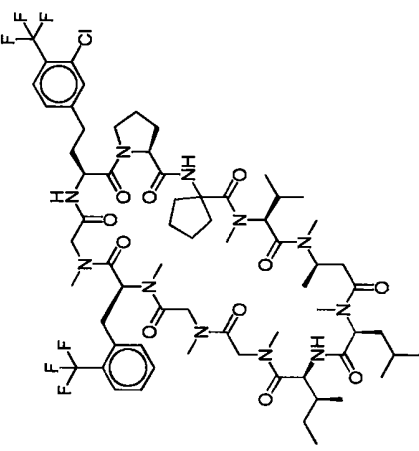
[5566]

	
1558	1560
	
1557	1559

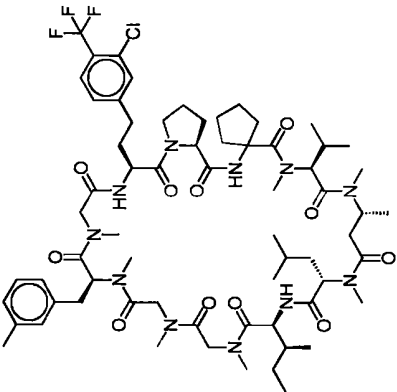
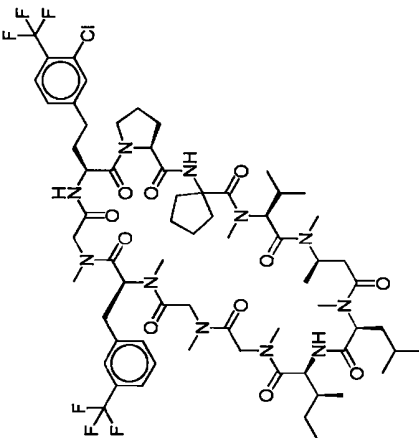
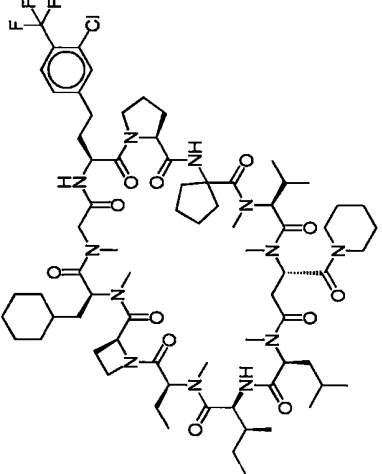
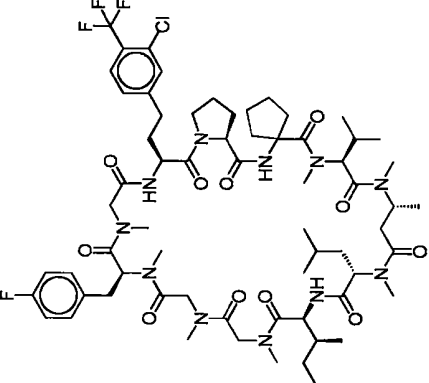
[5567]

	
1562	1564
	
1561	1563

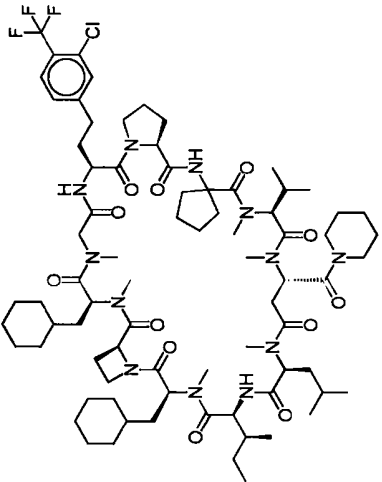
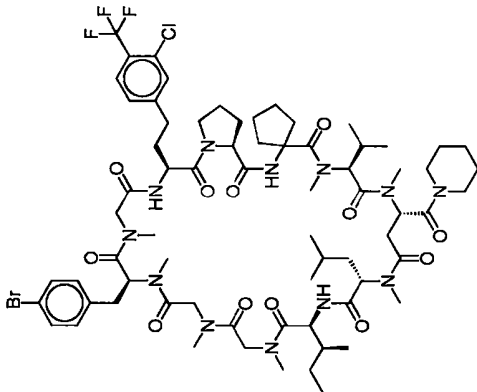
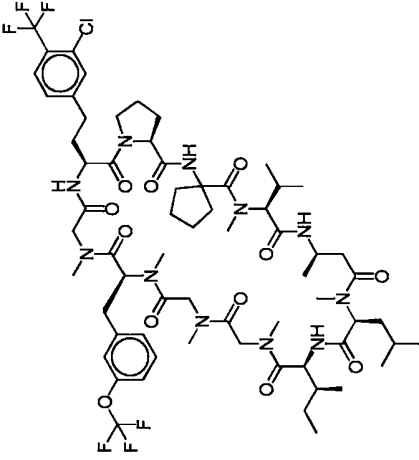
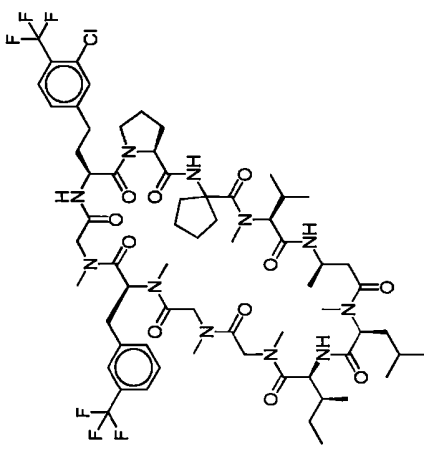
[5568]

	
1566	1568
	
1565	1567

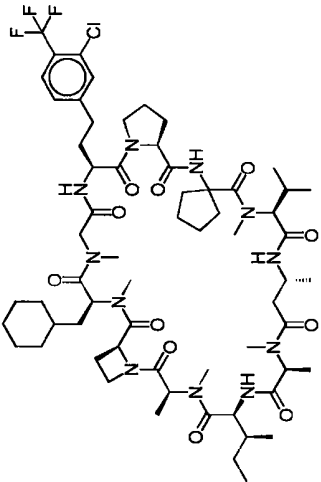
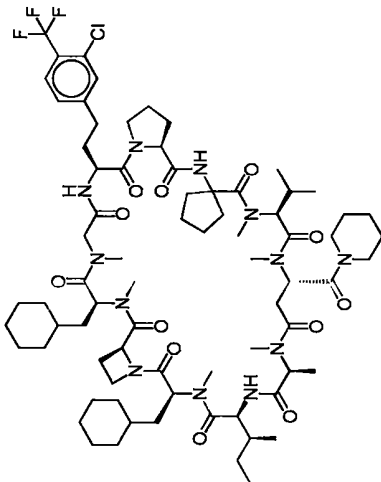
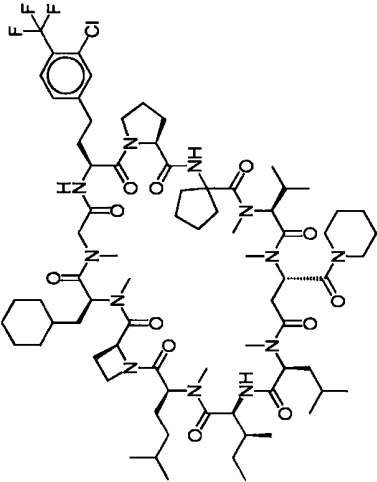
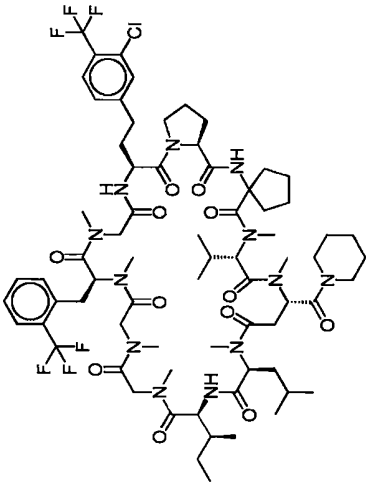
[5569]

	
1570	1572
	
1569	1571

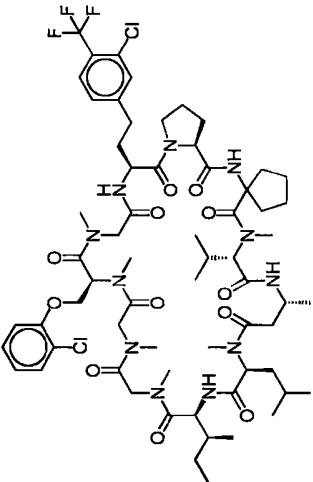
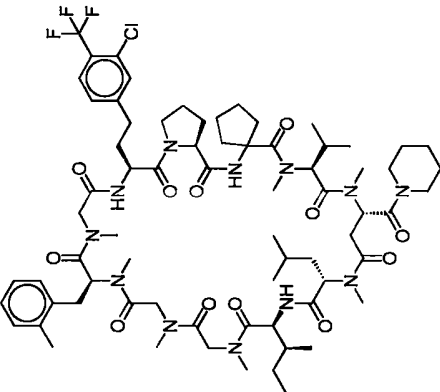
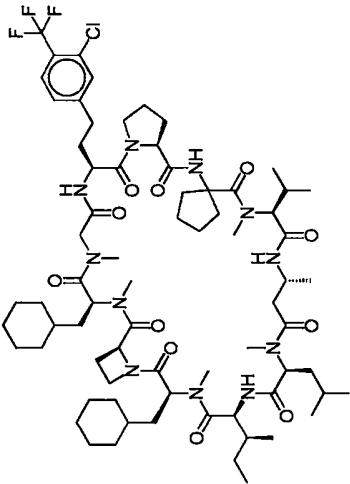
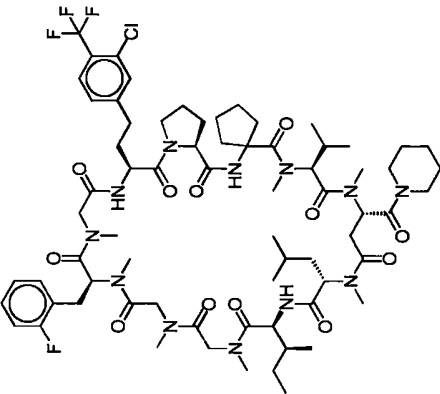
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1574	1576
	
1573	1575

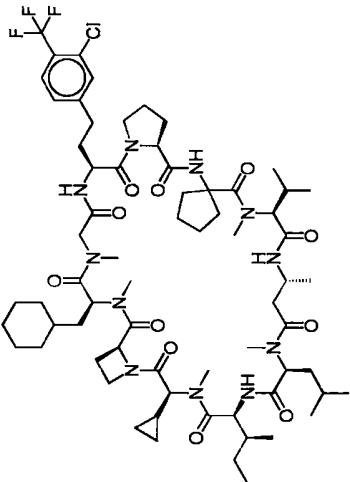
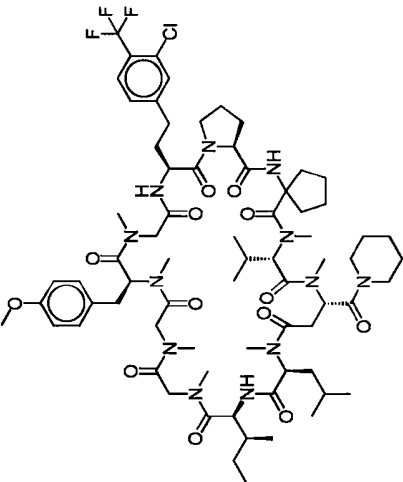
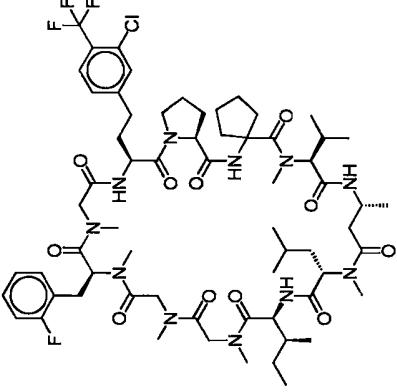
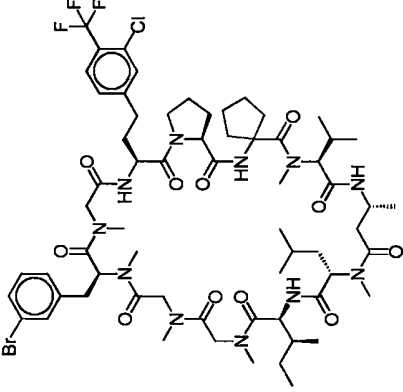
[5571]

	
1578	1580
	
1577	1579

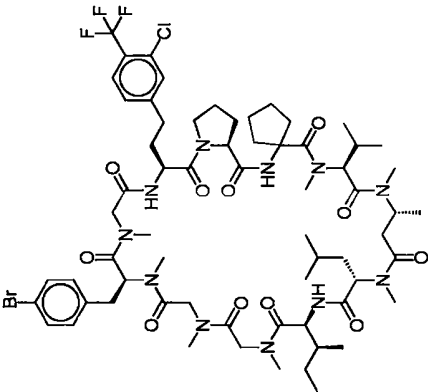
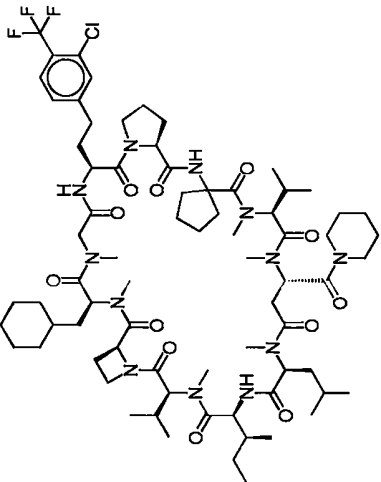
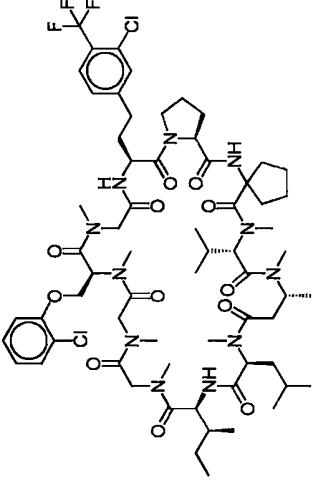
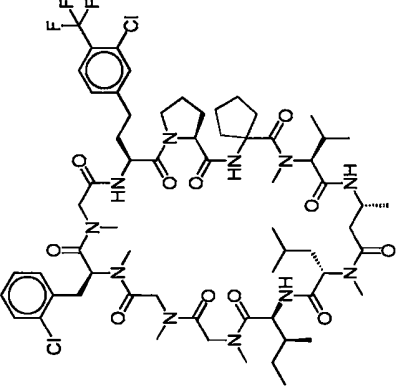
[5572]

	
1582	1584
	
1581	1583

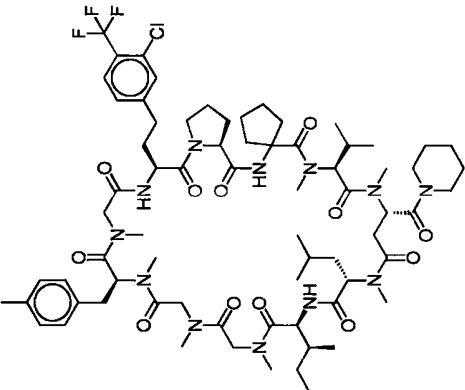
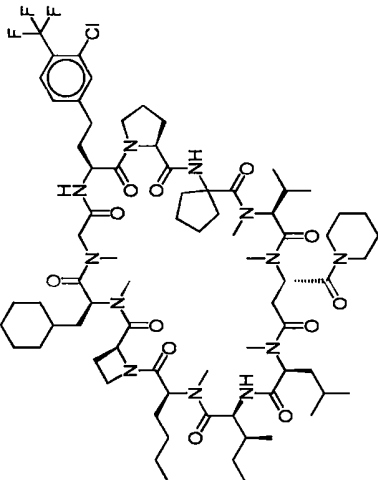
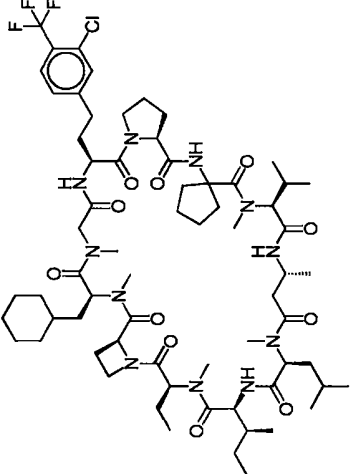
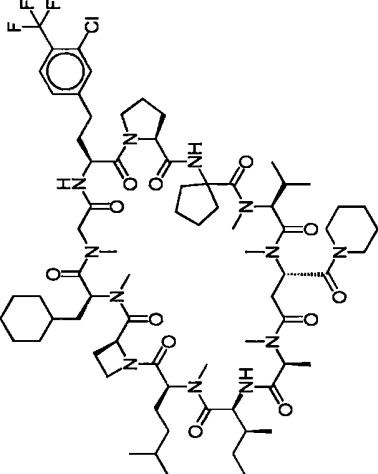
[5573]

	
1586	1588
	
1585	1587

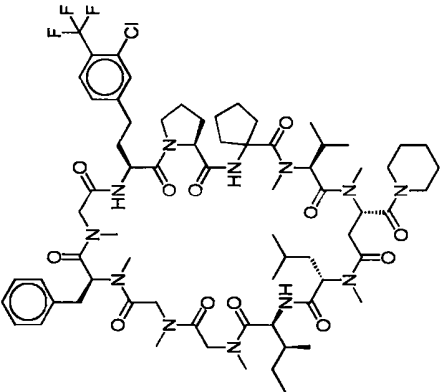
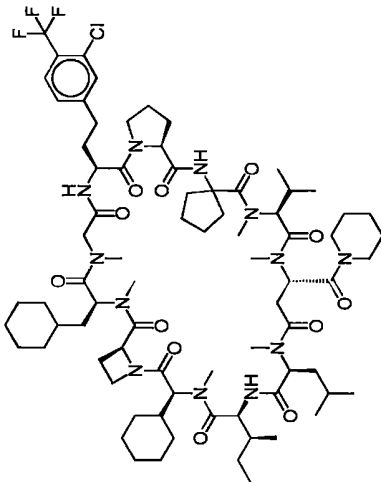
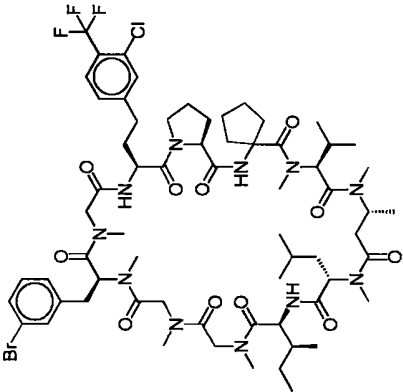
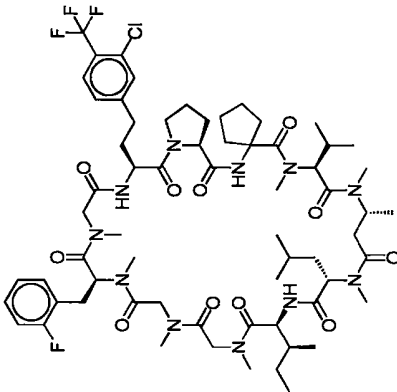
[5574]

	
1590	1592
	
1589	1591

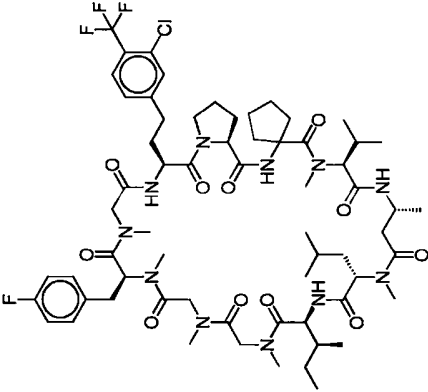
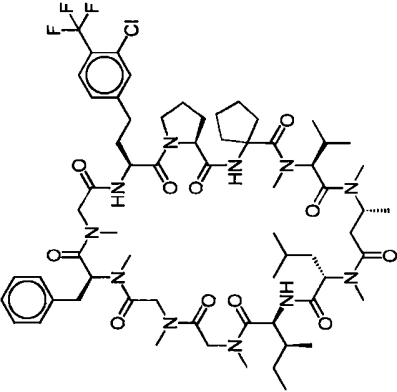
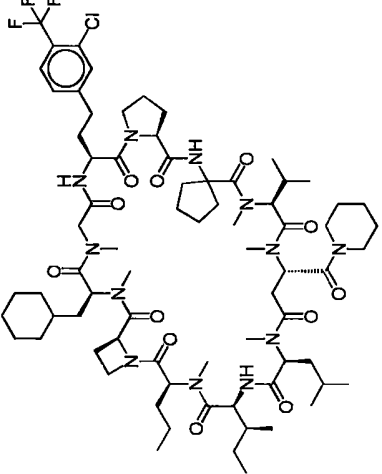
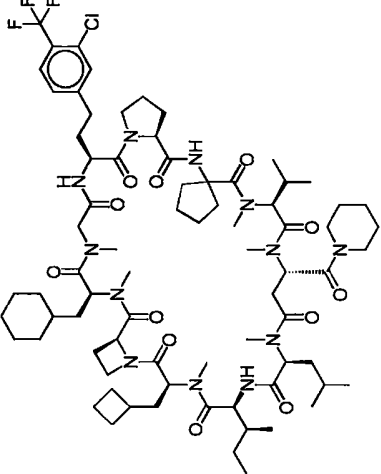
[5575]

	
1594	1596
	
1593	1595

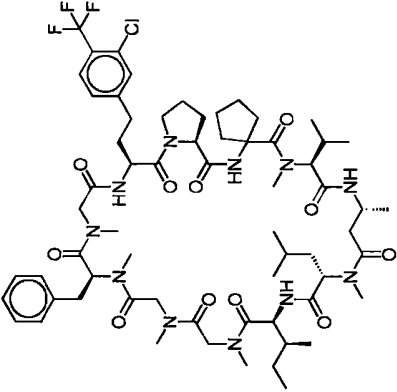
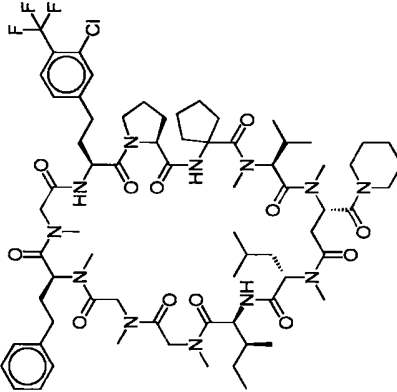
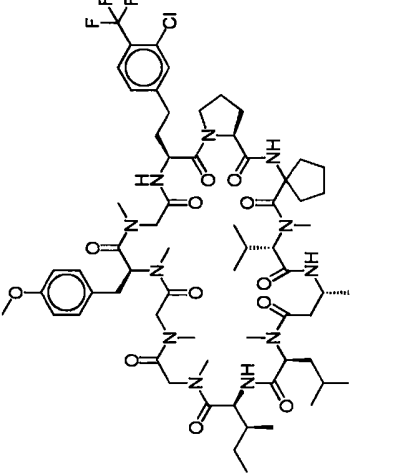
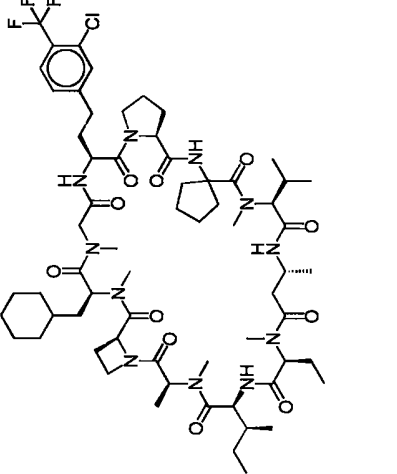
[5576]

	
1598	1600
	
1597	1599

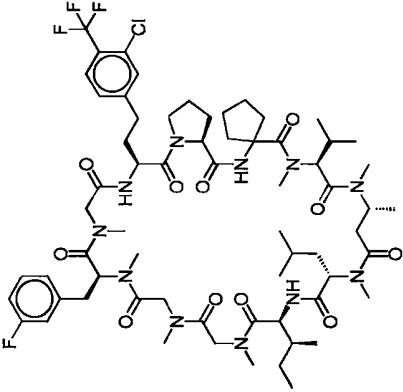
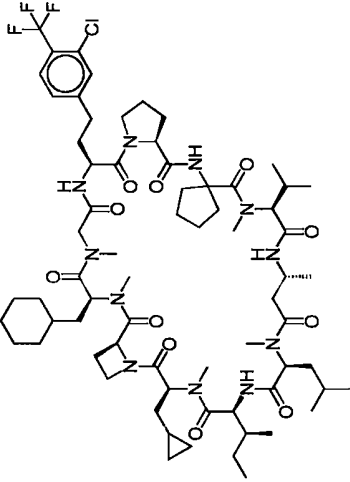
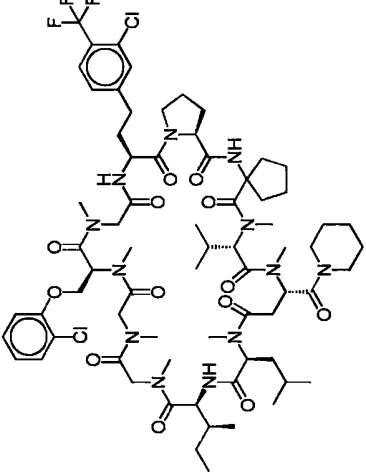
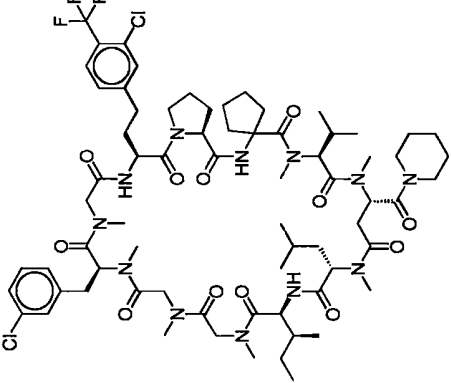
[5577]

	
1602	1604
	
1601	1603

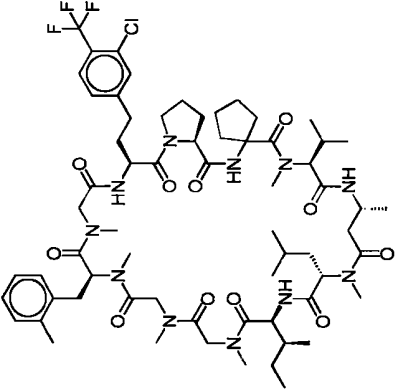
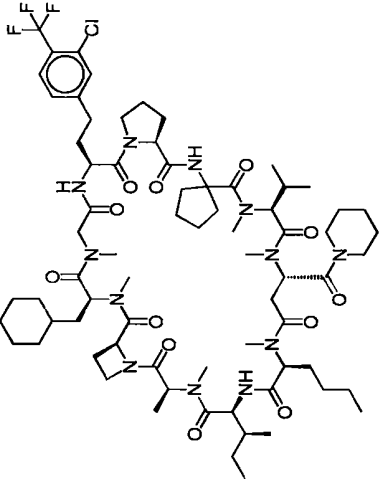
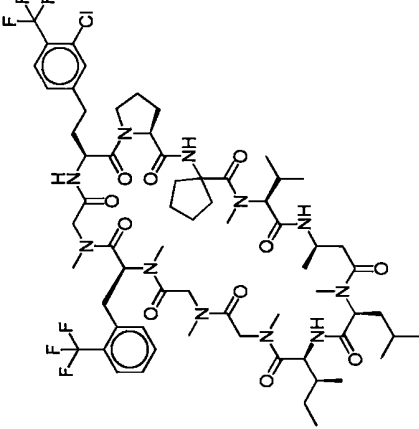
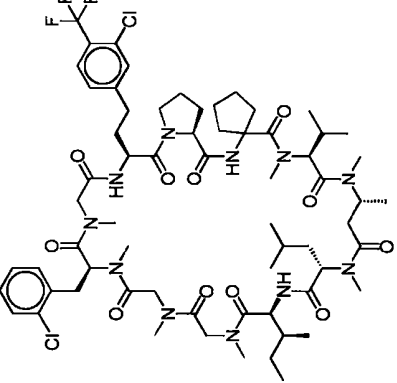
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1606	1608
	
1605	1607

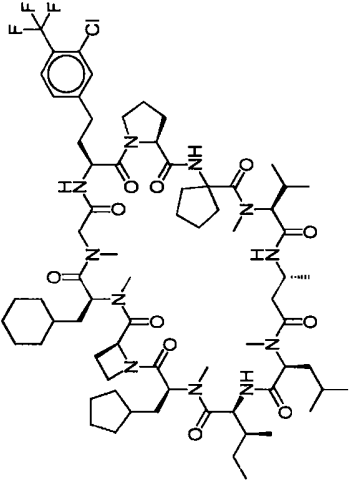
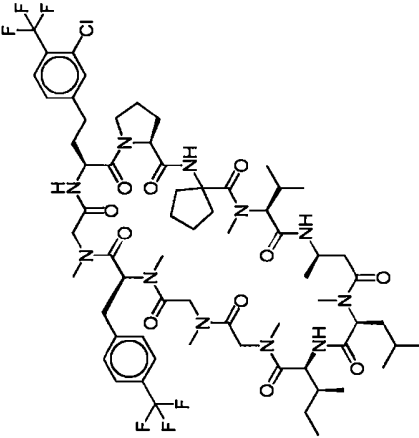
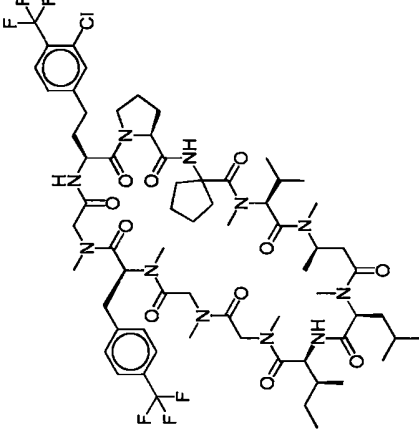
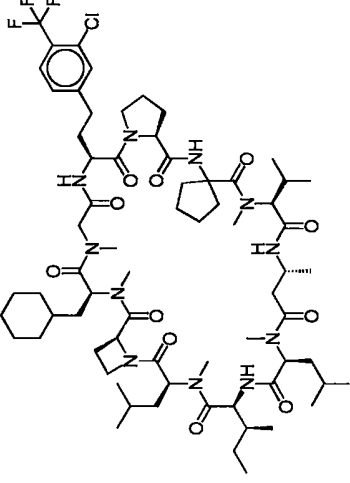
[5579]

	
1610	1612
	
1609	1611

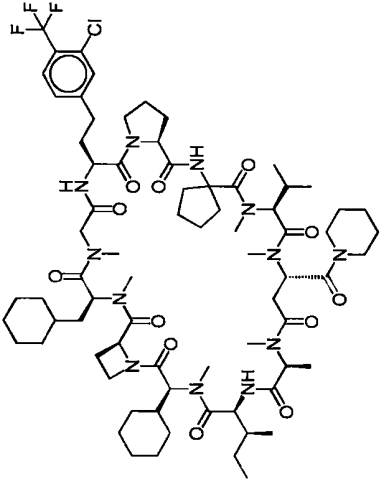
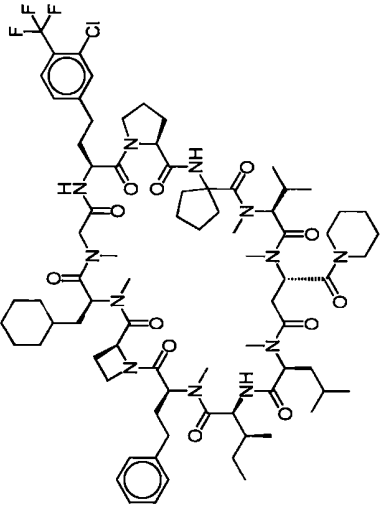
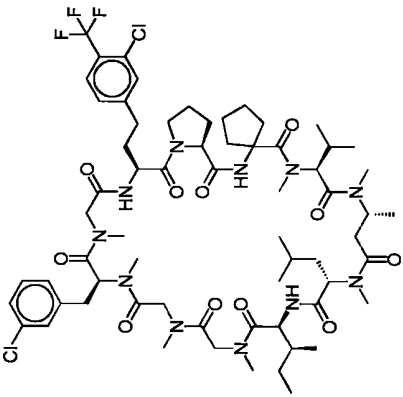
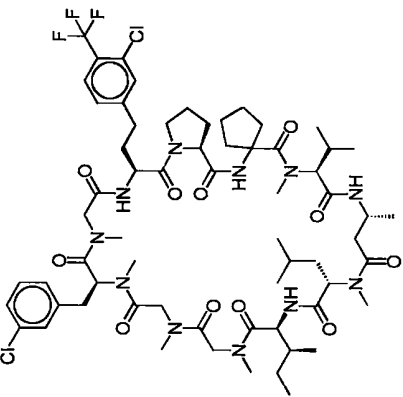
[5580]

	
1614	1616
	
1613	1615

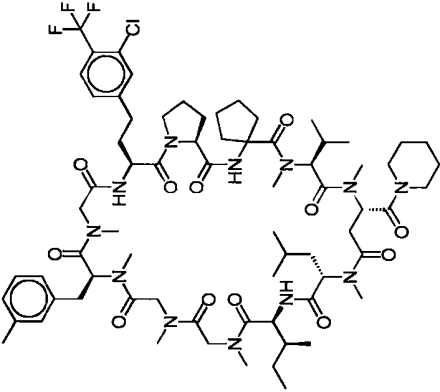
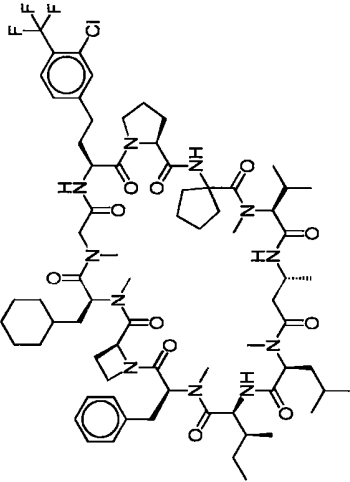
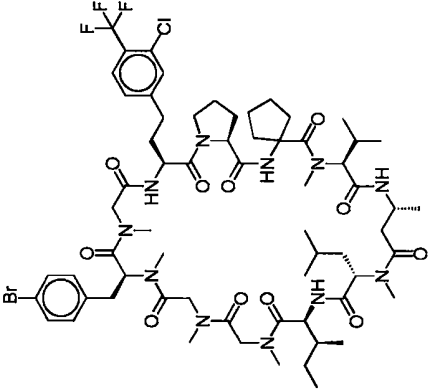
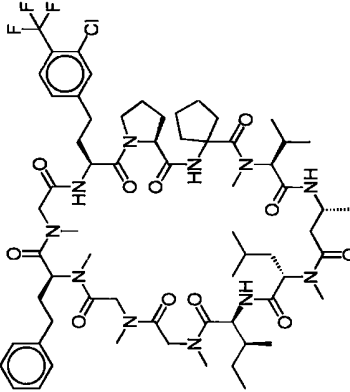
[5581]

	
1618	1620
	
1617	1619

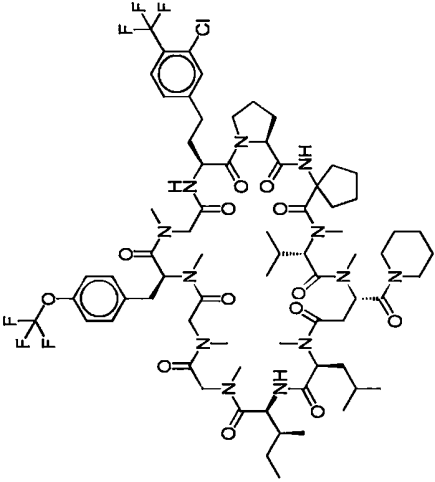
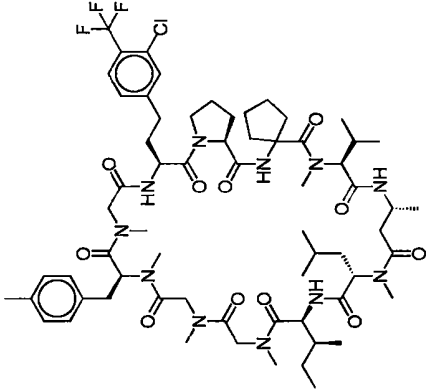
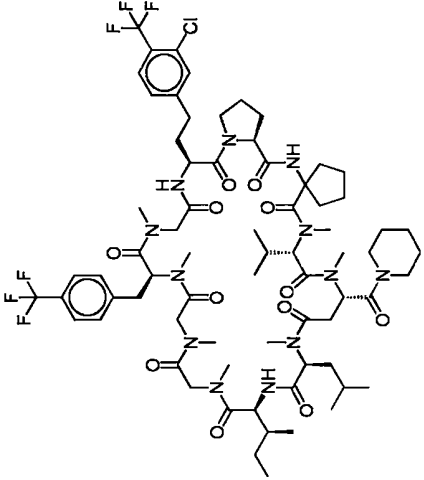
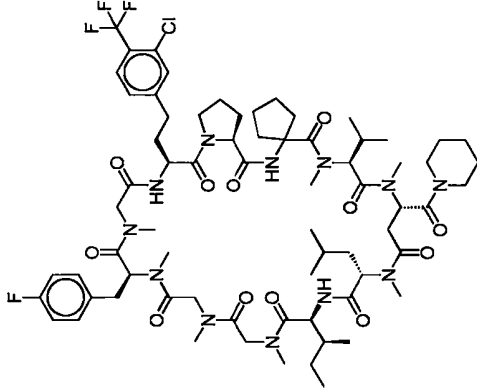
[5582]

	
1622	1624
	
1621	1623

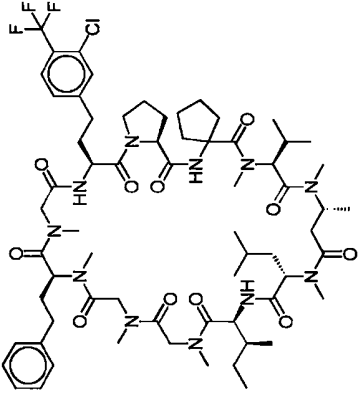
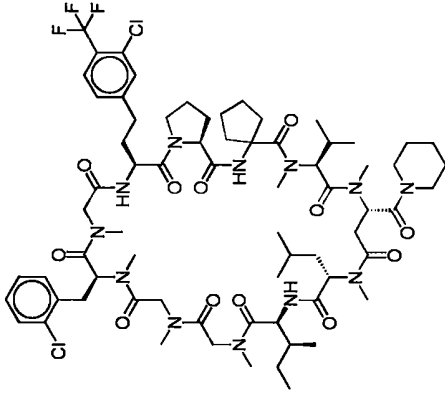
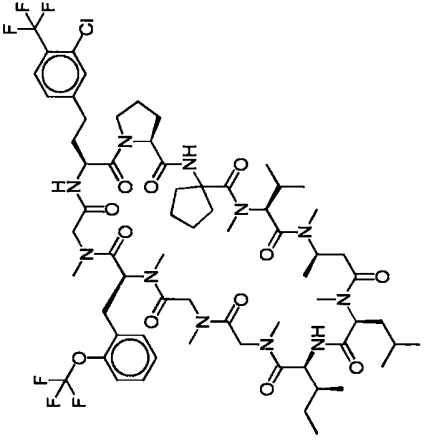
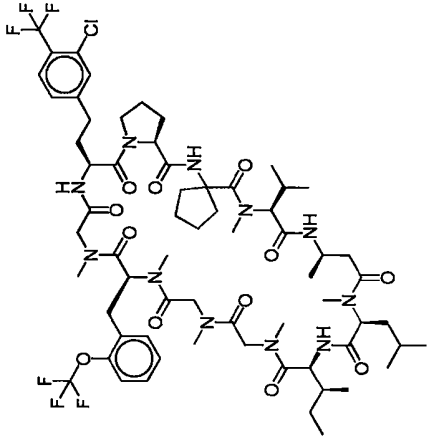
[5583]

	
1626	1628
	
1625	1627

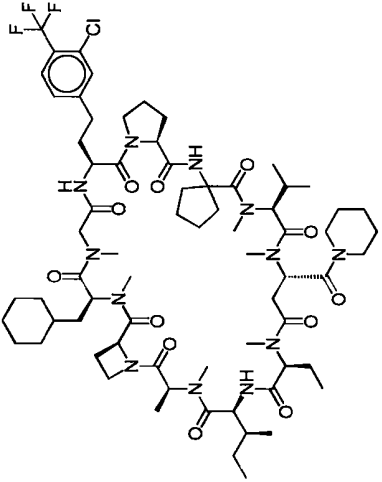
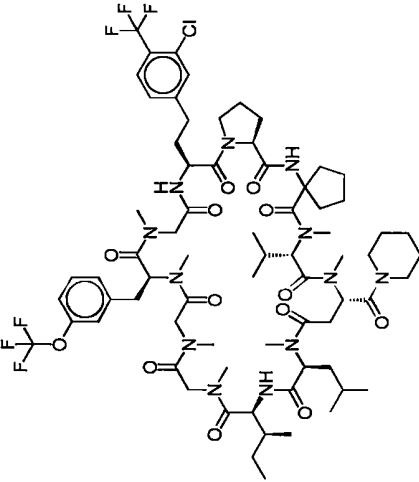
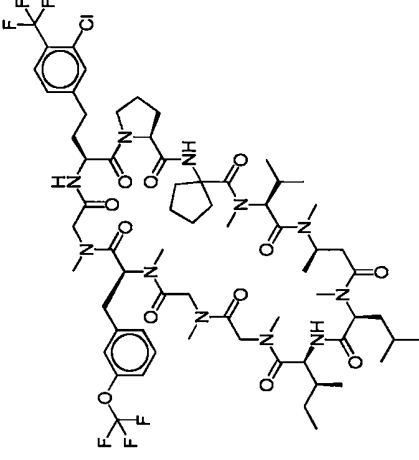
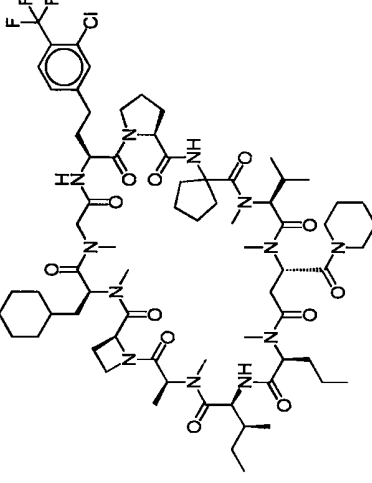
[5584]

	
1630	1632
	
1629	1631

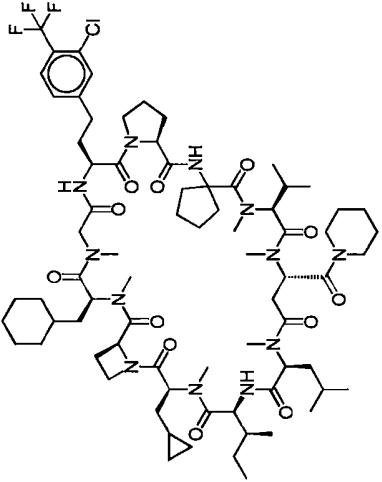
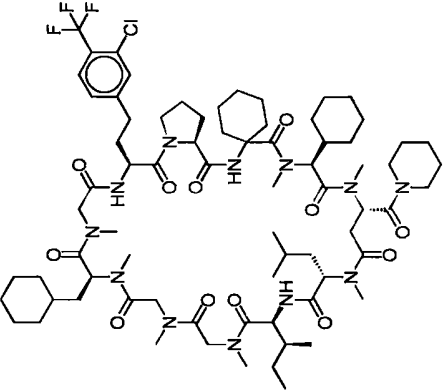
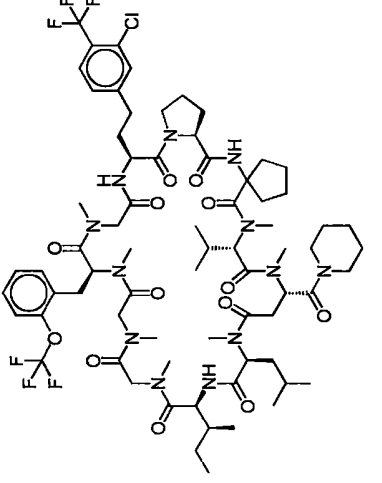
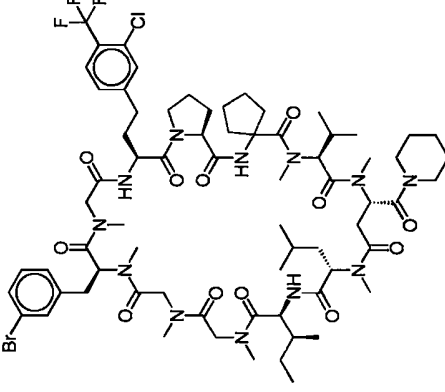
[5585]

	
1634	1636
	
1633	1635

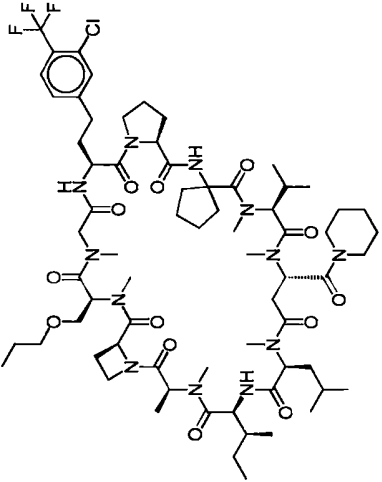
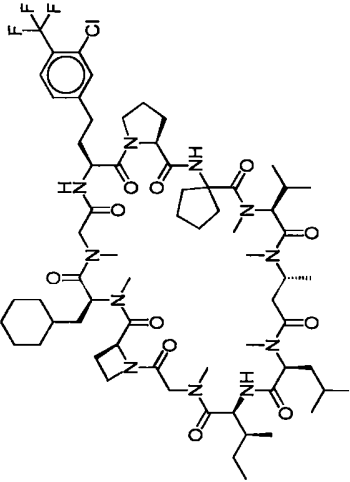
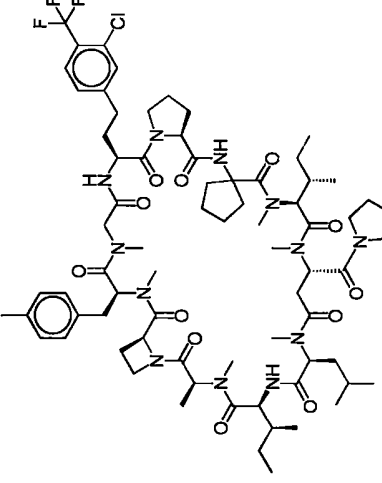
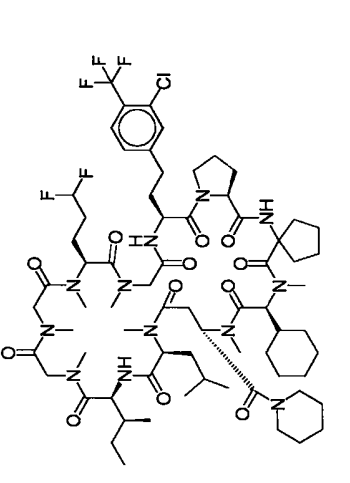
[5586]

	
1638	1640
	
1637	1639

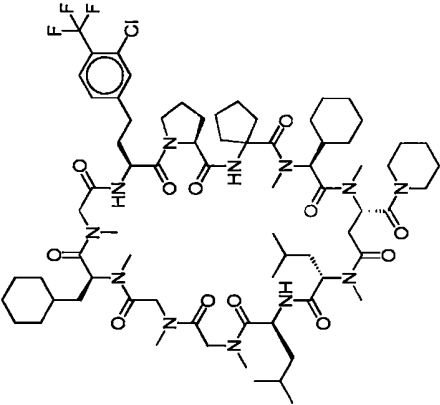
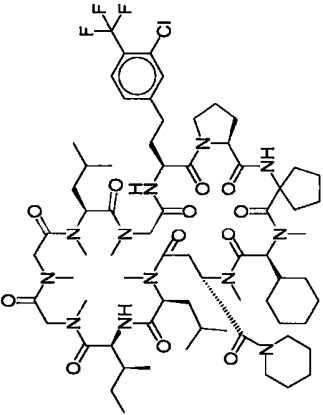
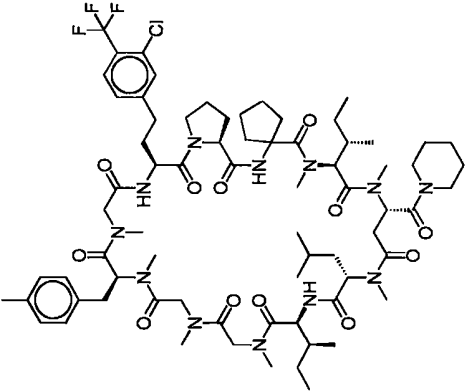
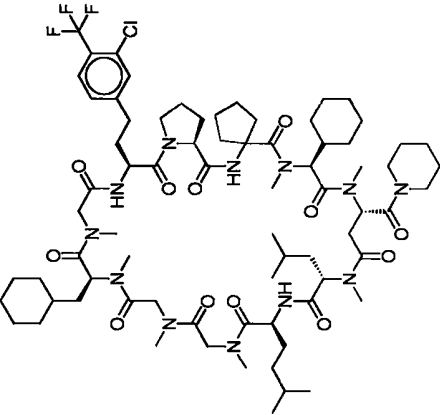
[5587]

	
1642	1644
	
1641	1643

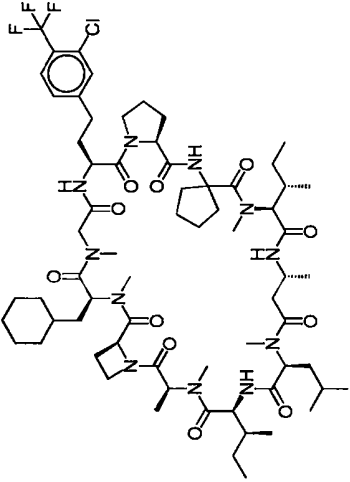
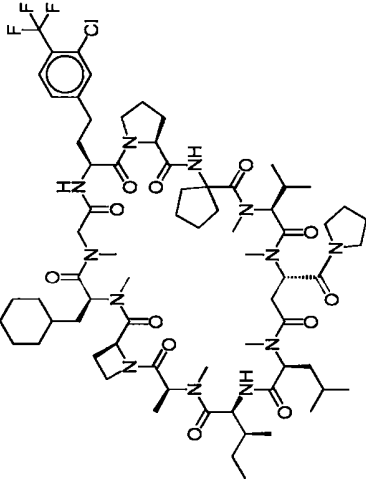
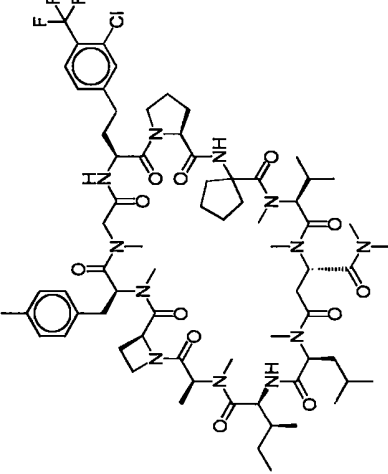
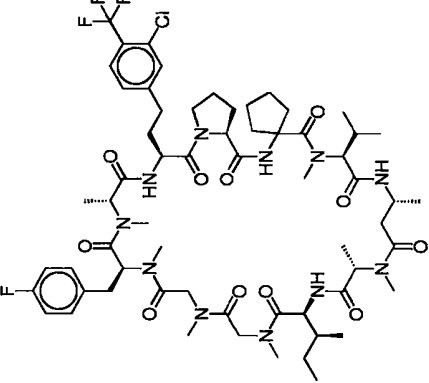
[5588]

	
1646	1648
	
1645	1647

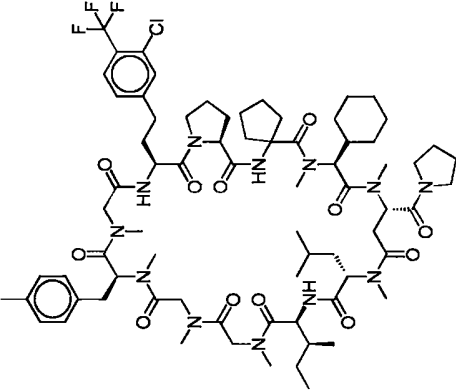
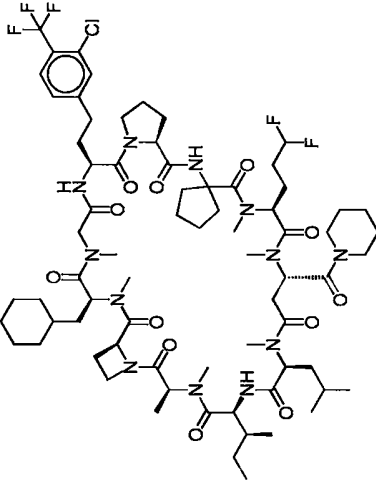
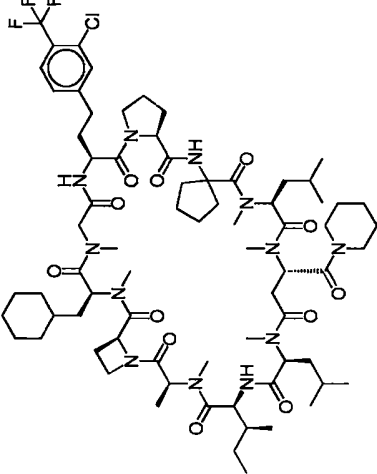
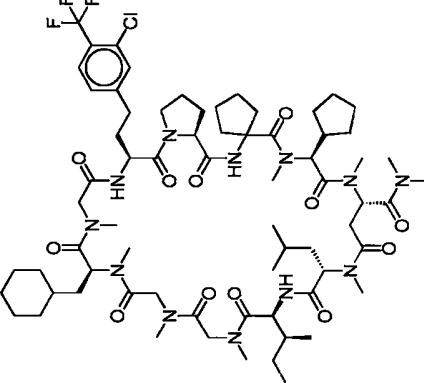
[5589]

	
1650	1652
	
1649	1651

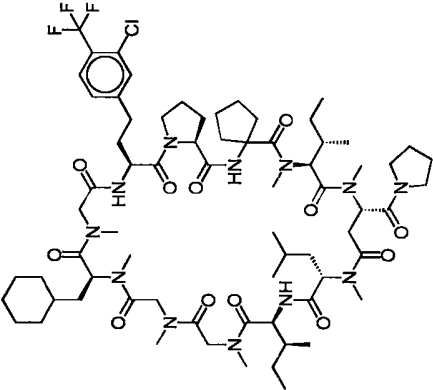
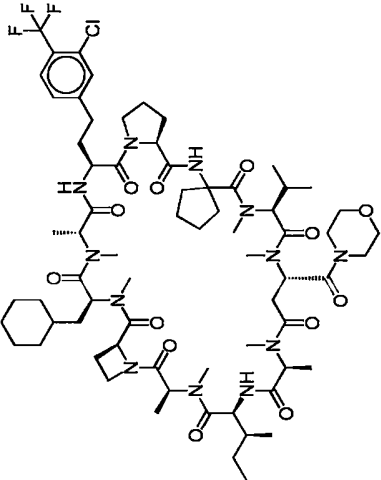
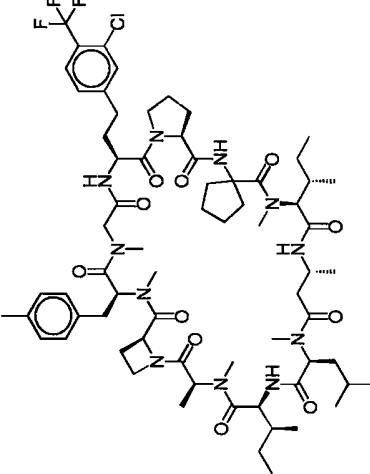
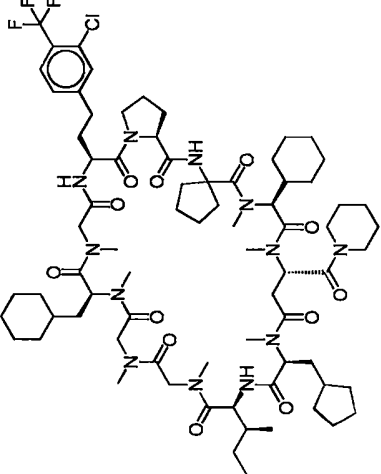
[5590]

	
1654	1656
	
1653	1655

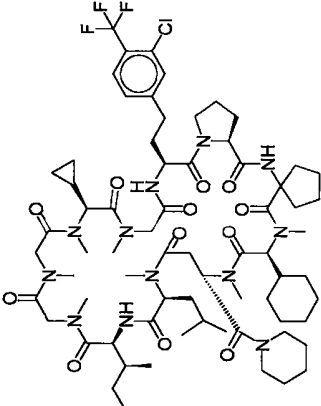
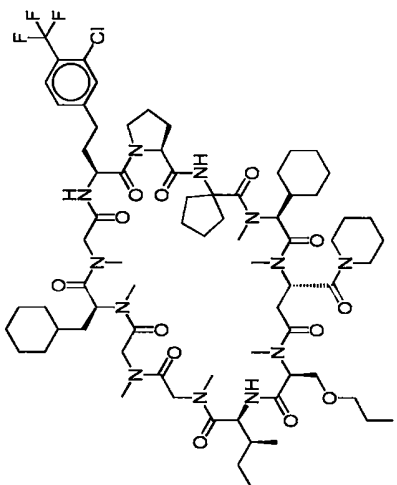
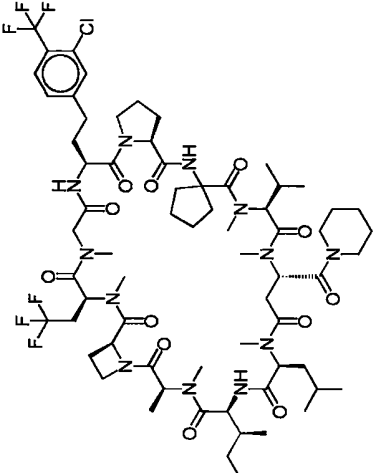
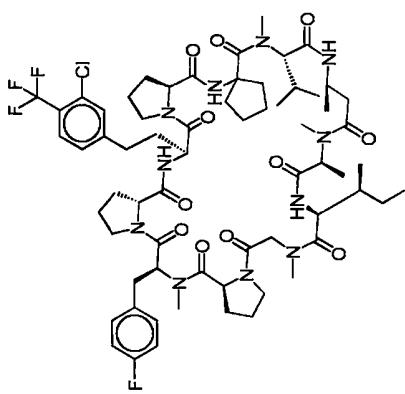
[5591]

	
1658	1660
	
1657	1659

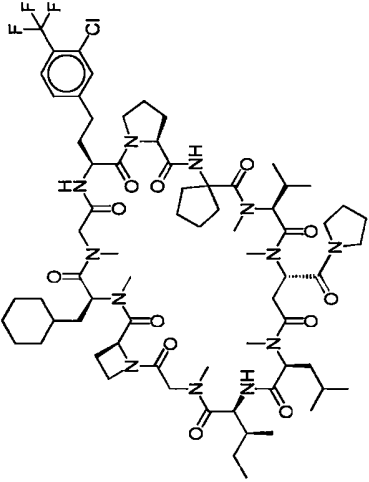
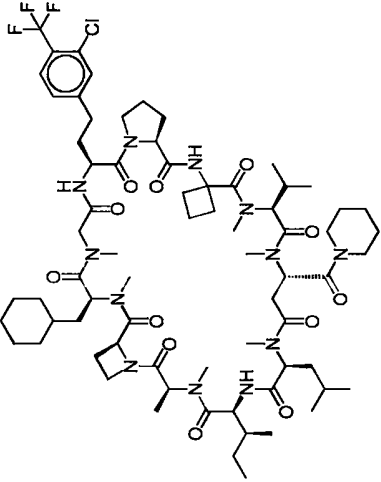
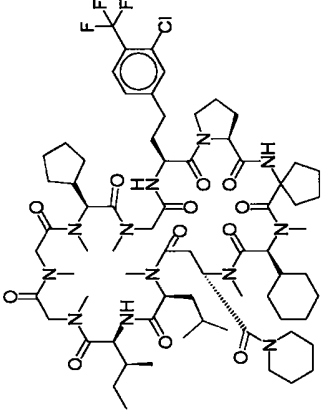
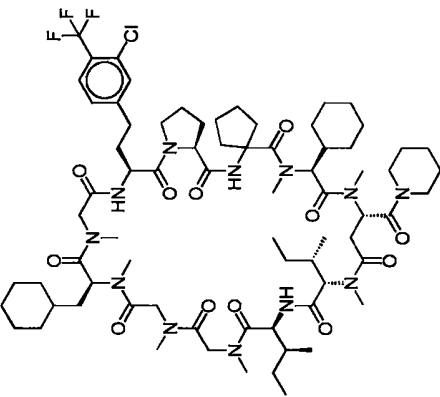
[5592]

	
1662	1664
	
1661	1663

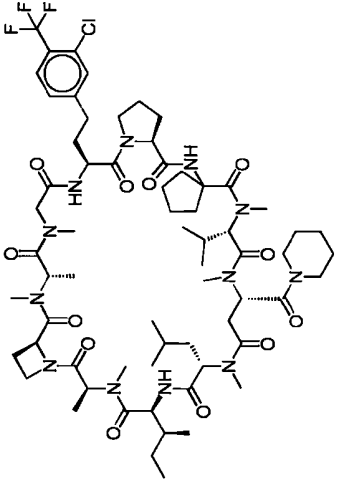
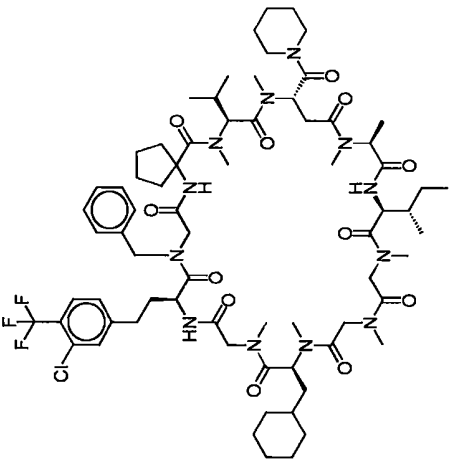
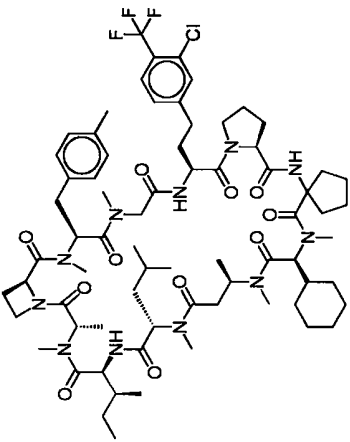
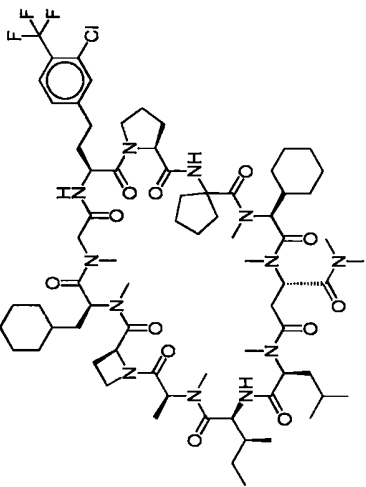
[5593]

	
1666	1668
	
1665	1667

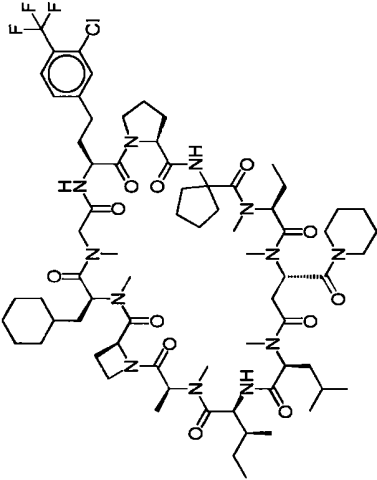
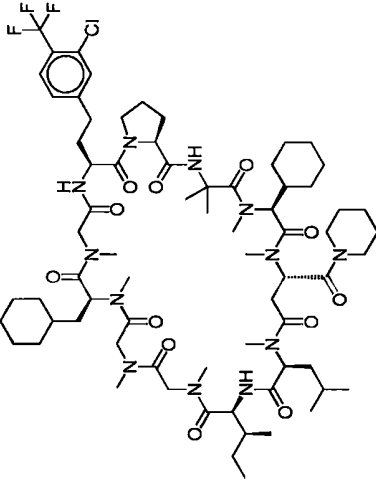
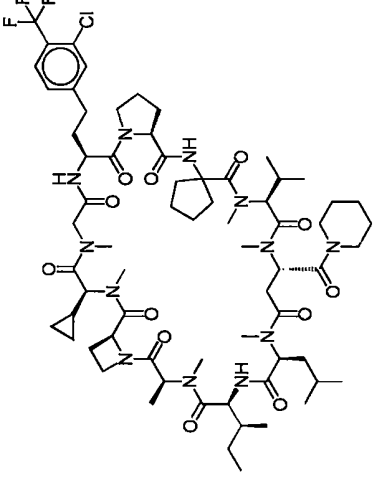
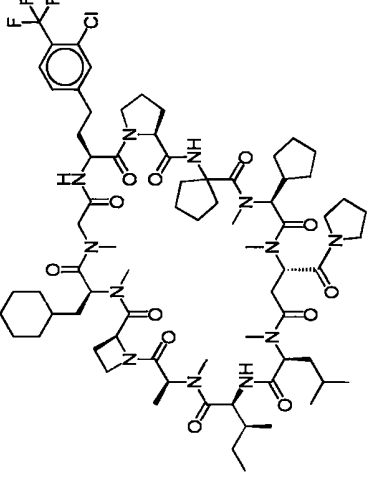
[5594]

	
1670	1672
	
1669	1671

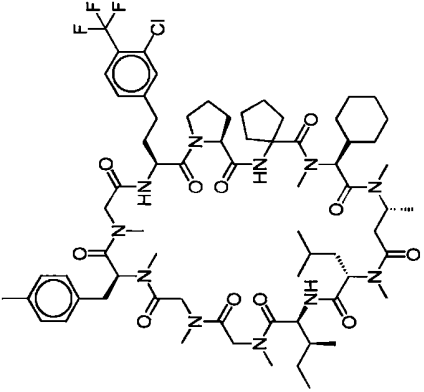
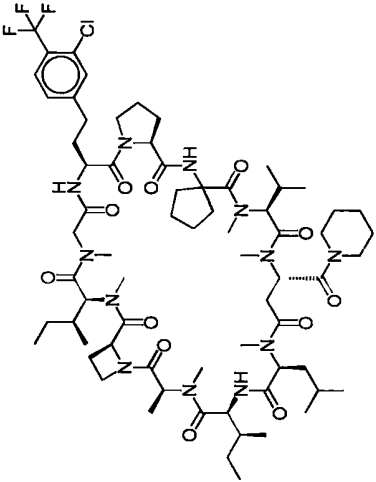
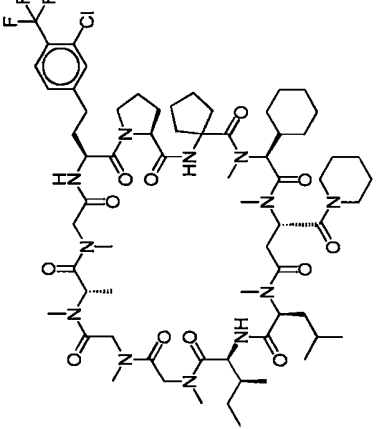
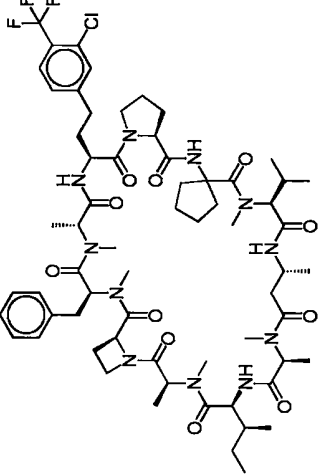
[5595]

	
1674	1676
	
1673	1675

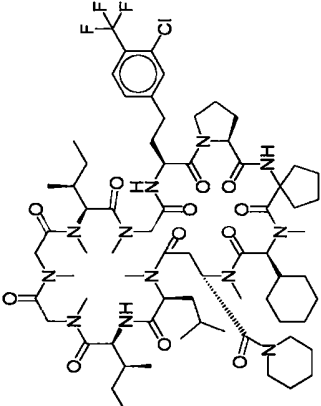
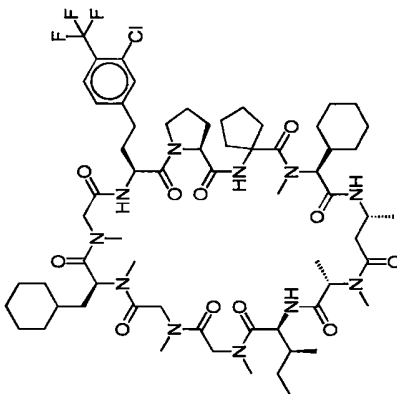
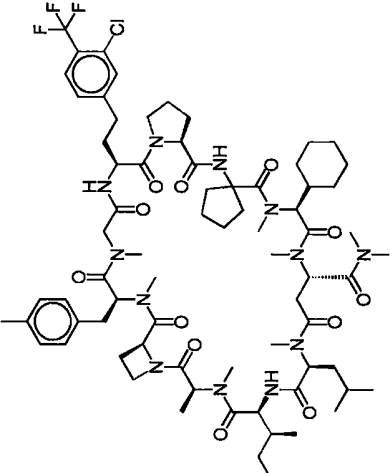
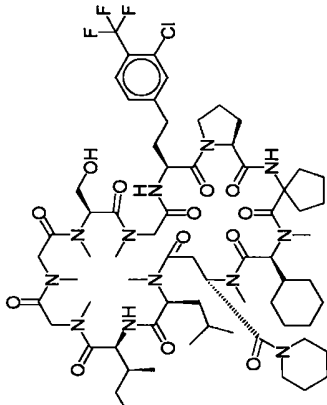
[5596]

	
1678	1680
	
1677	1679

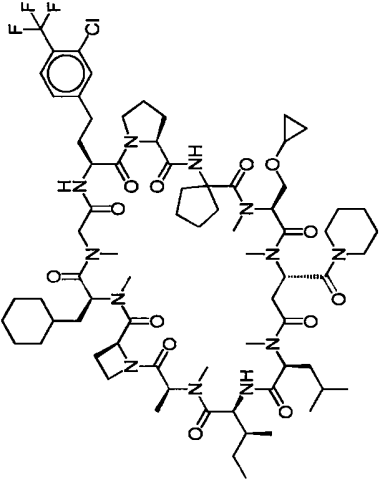
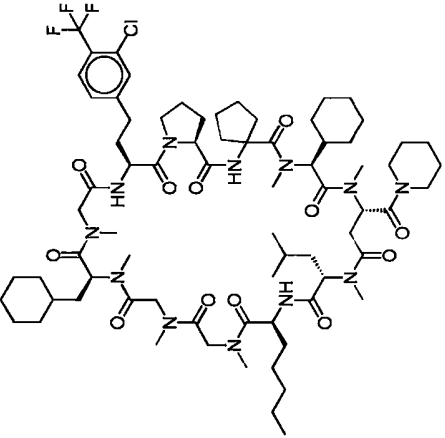
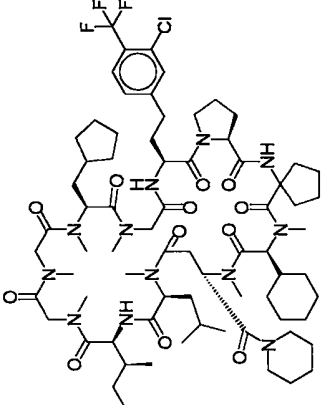
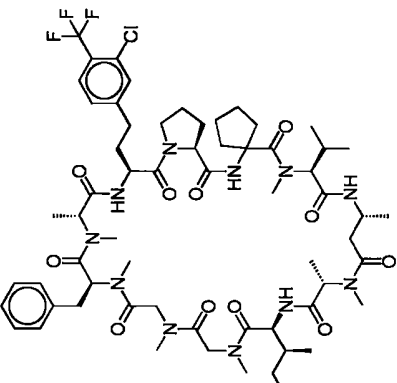
[5597]

	
1682	1684
	
1681	1683

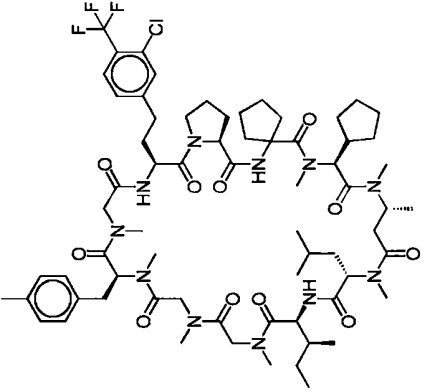
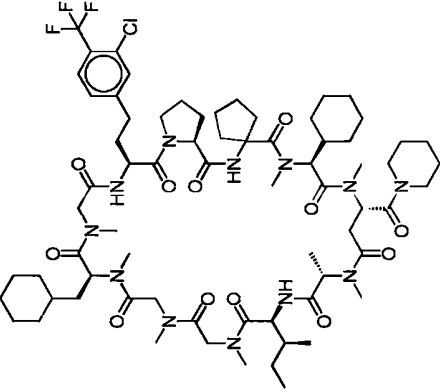
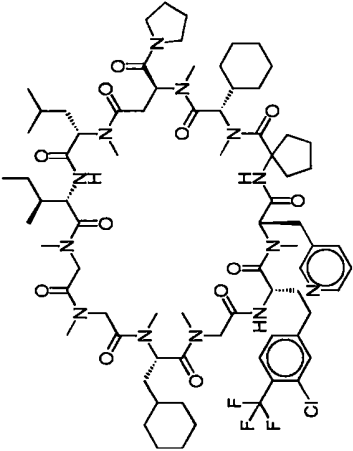
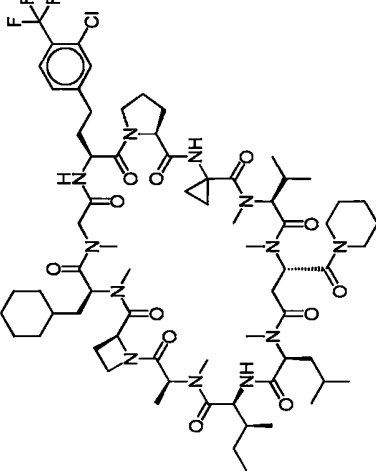
[5598]

	
1686	1688
	
1685	1687

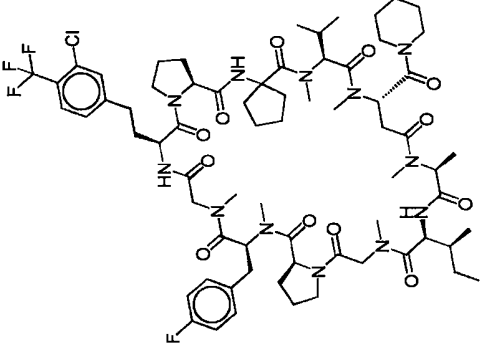
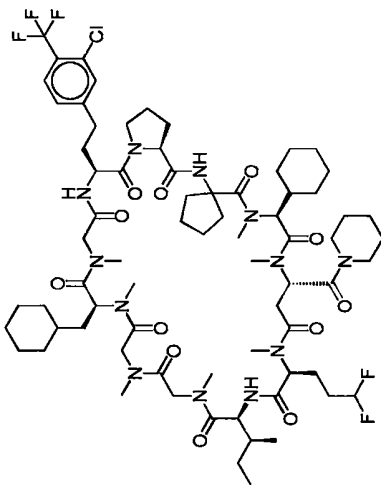
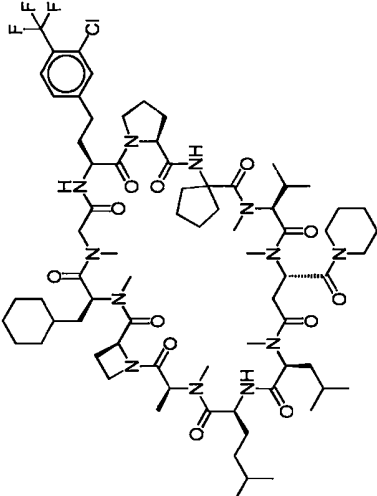
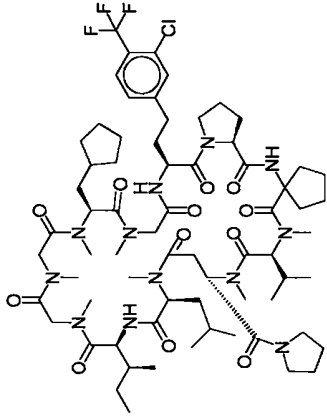
[5599]

	
1690	1692
	
1689	1691

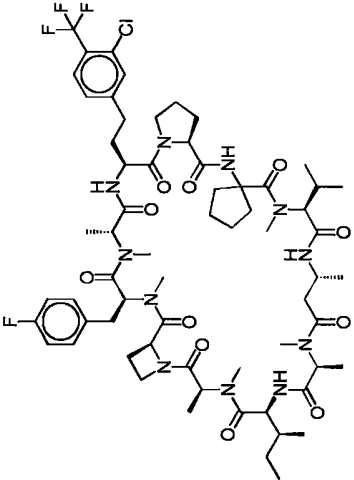
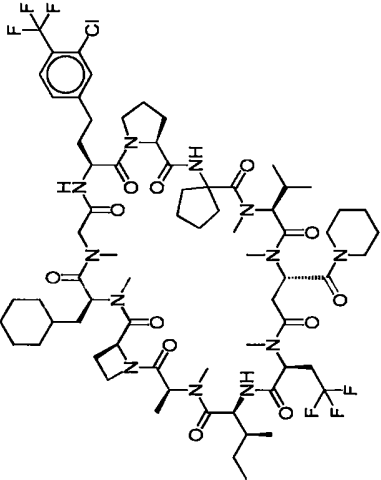
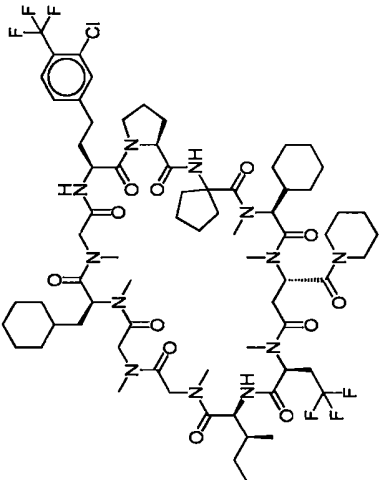
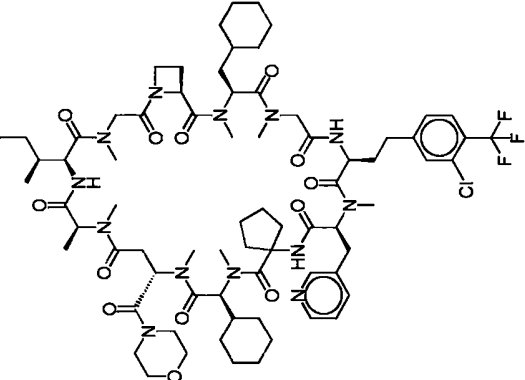
[5600]

	
1694	1696
	
1693	1695

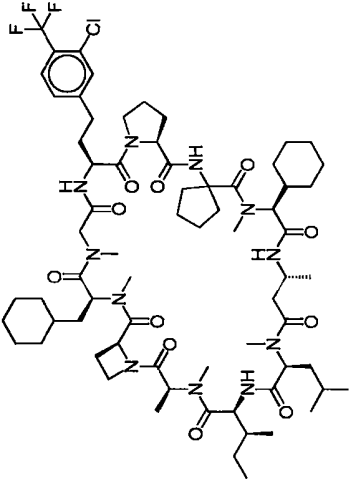
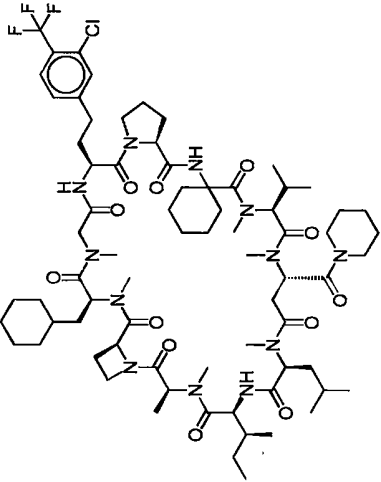
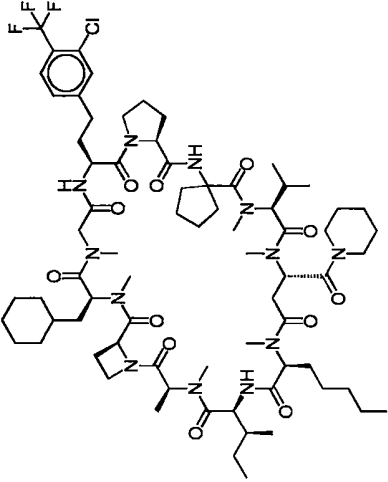
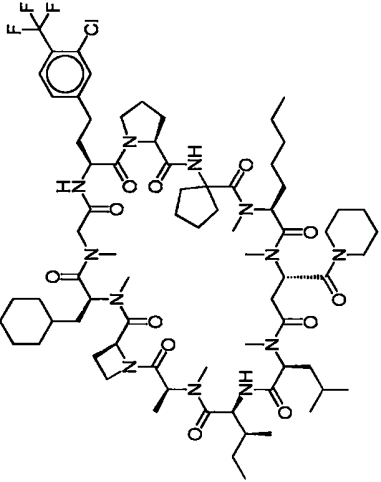
[5601]

	
1698	1700
	
1697	1699

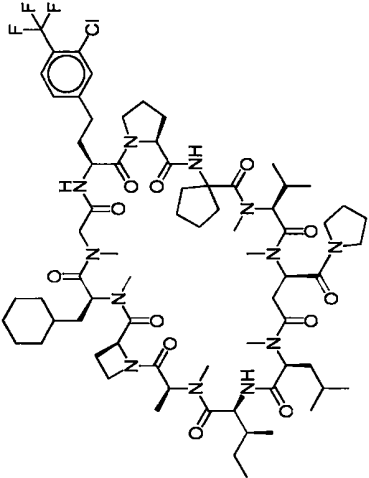
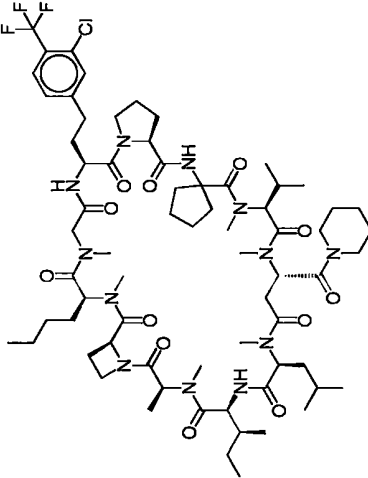
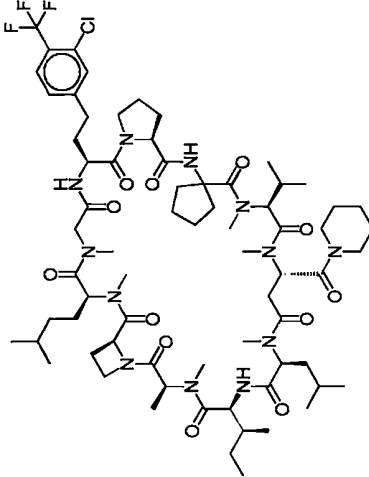
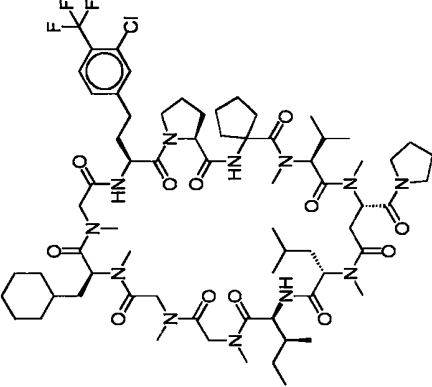
[5602]

	
1702	1704
	
1701	1703

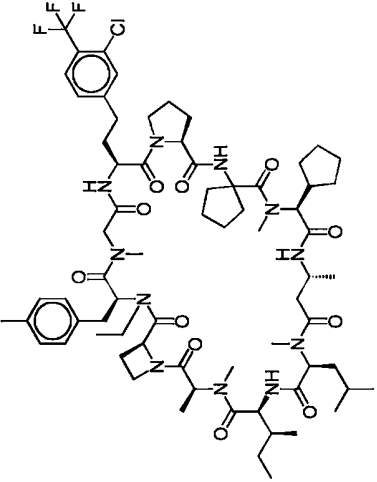
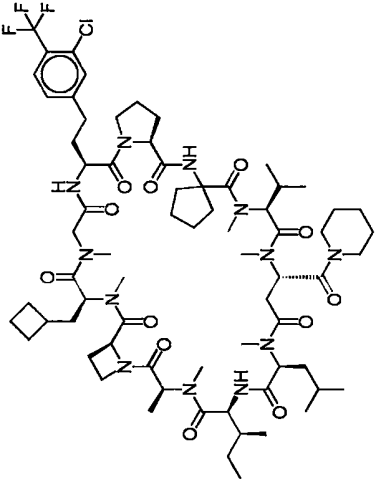
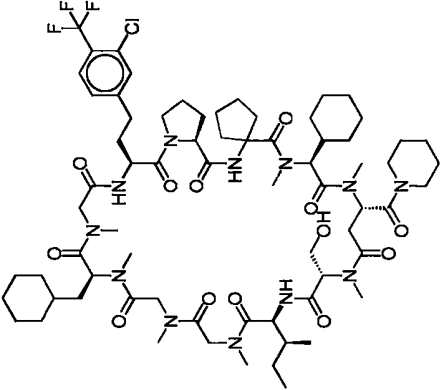
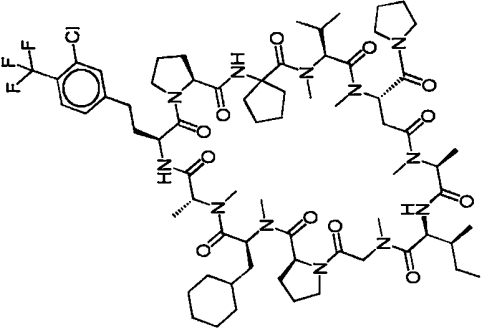
[5603]

	
1706	1708
	
1705	1707

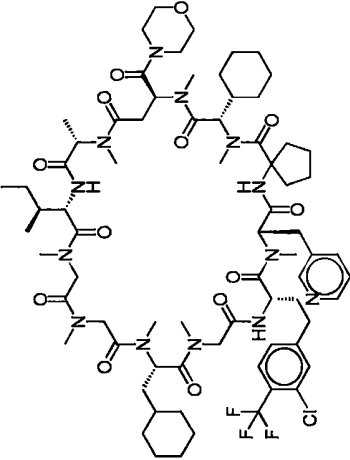
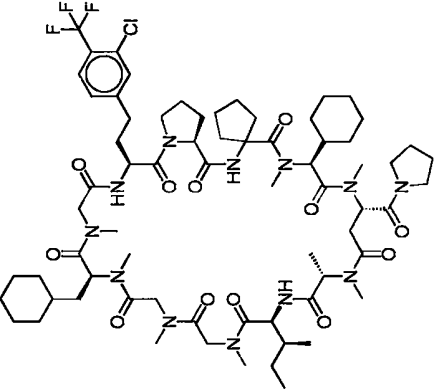
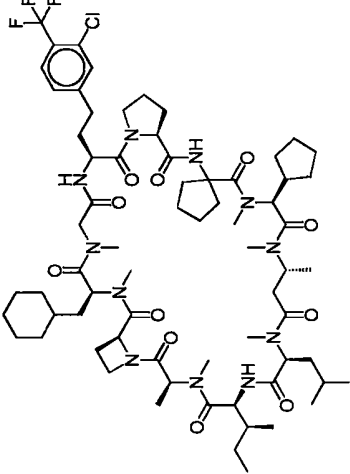
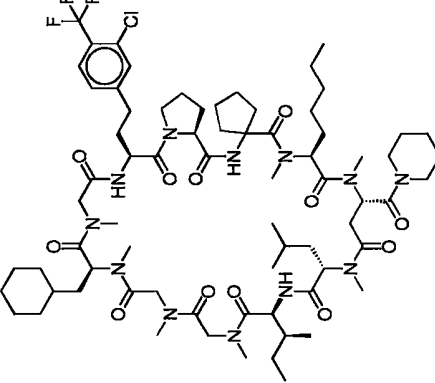
[5604]

	
1710	1712
	
1709	1711

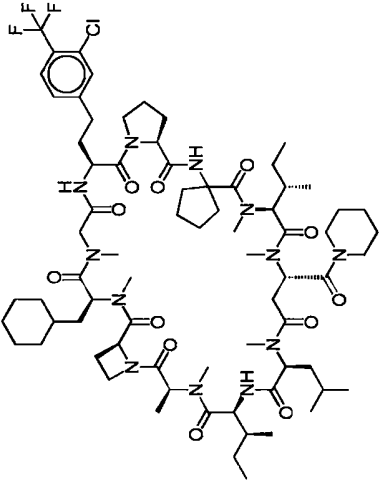
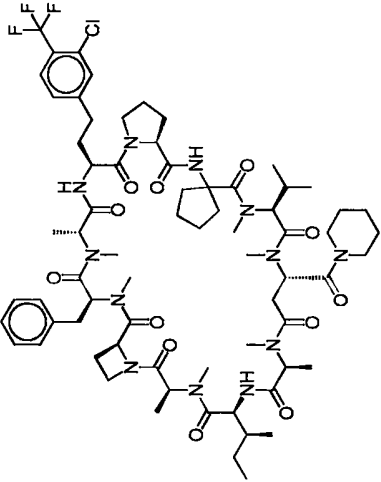
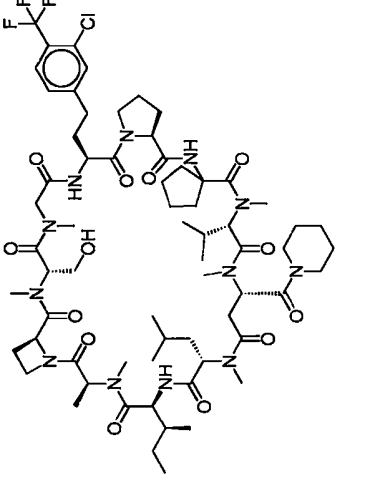
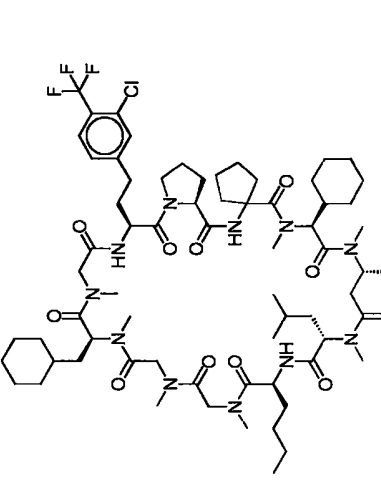
[5605]

	
1714	1716
	
1713	1715

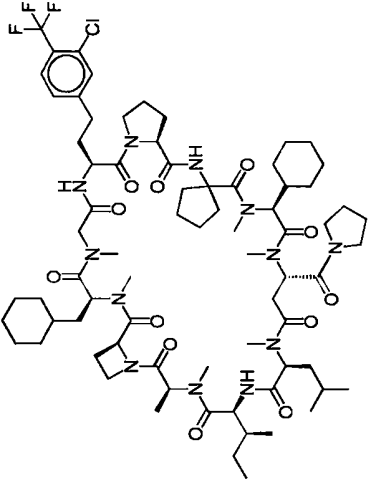
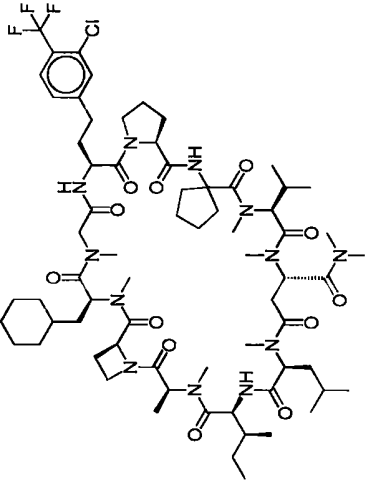
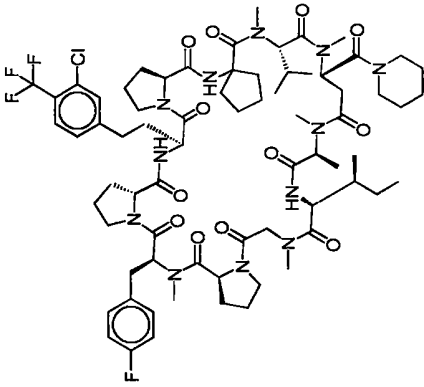
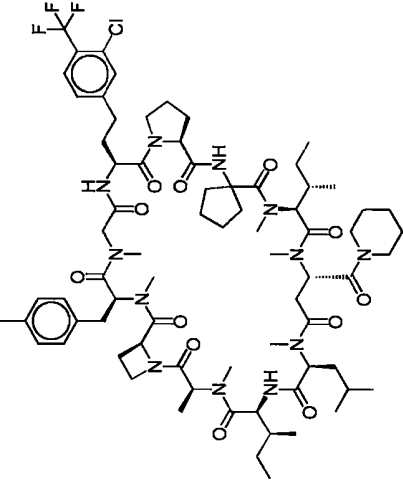
[5606]

	
1718	1720
	
1717	1719

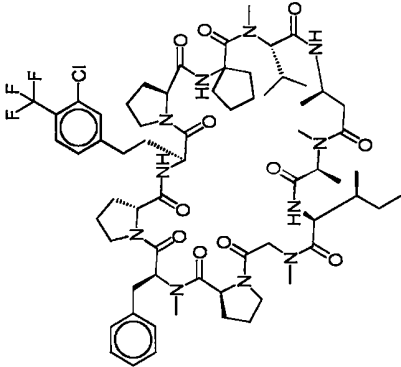
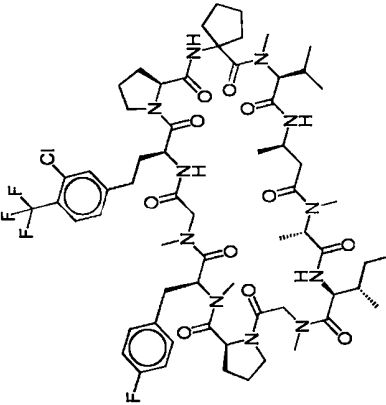
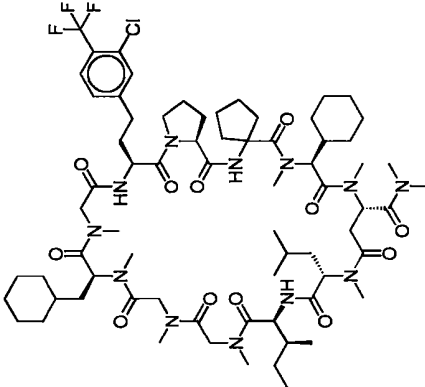
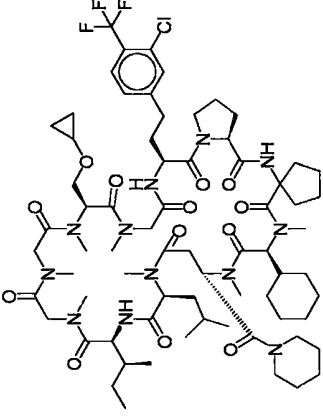
[5607]

	
1722	1724
	
1721	1723

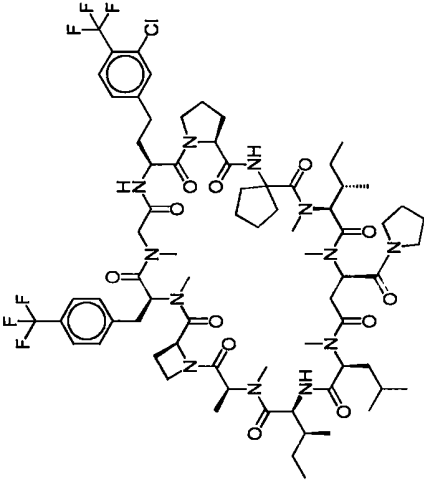
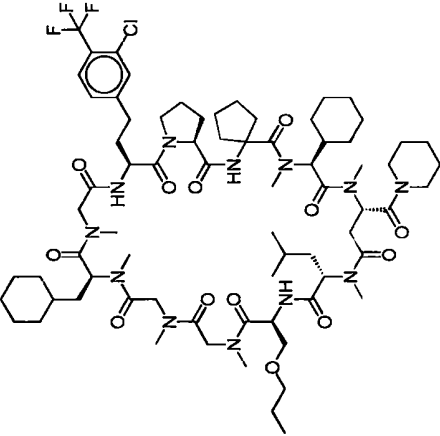
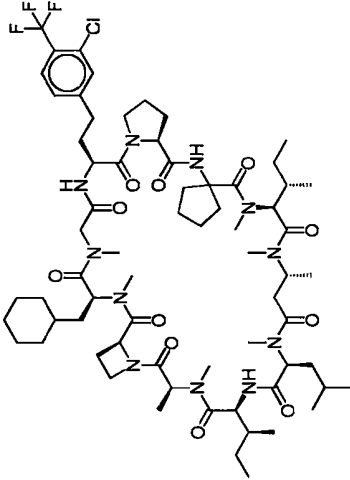
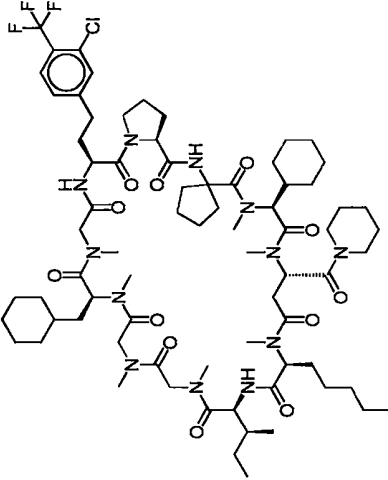
[5608]

	
1726	1728
	
1725	1727

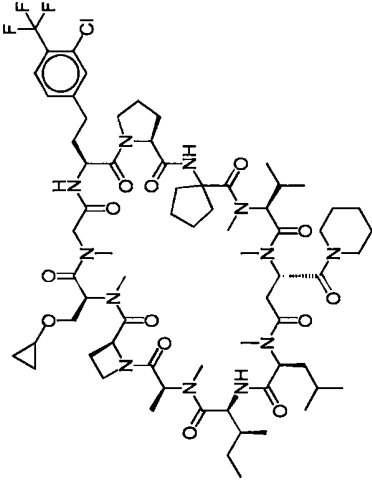
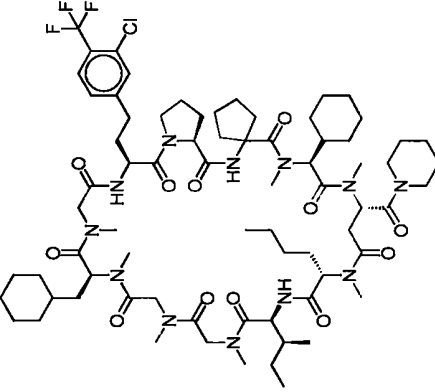
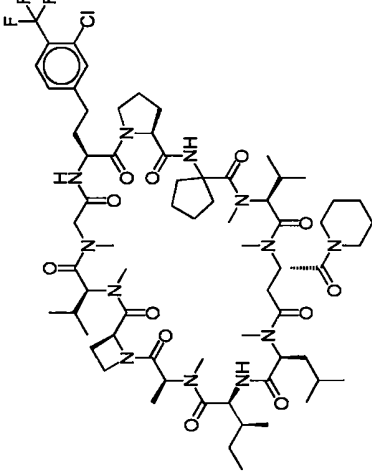
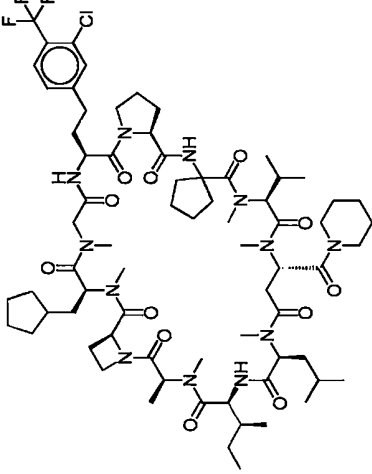
[5609]

	
1730	1732
	
1729	1731

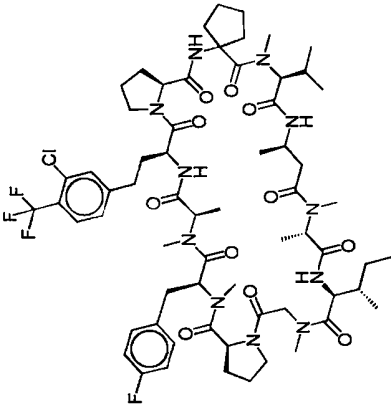
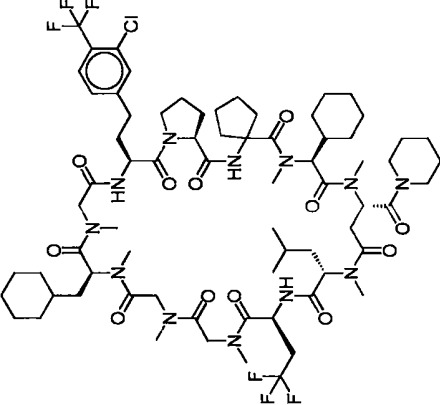
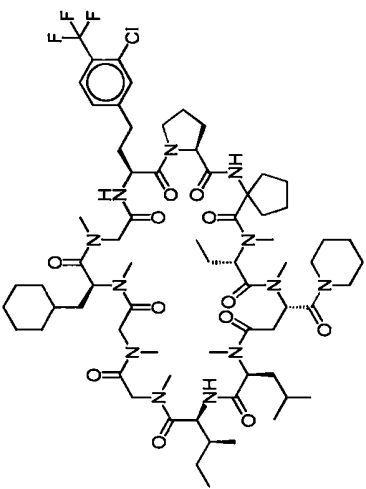
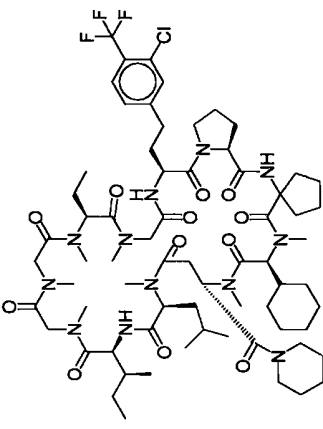
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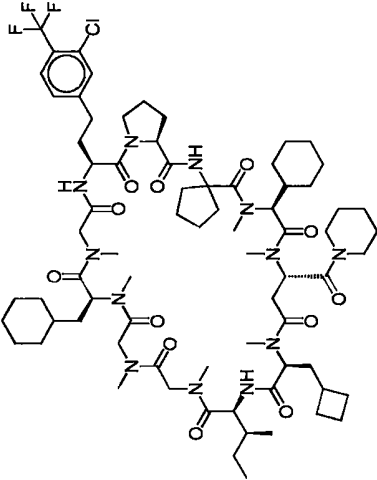
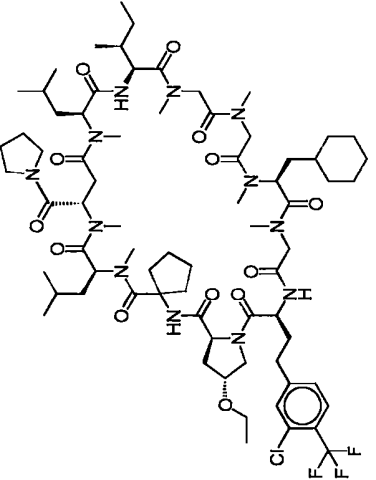
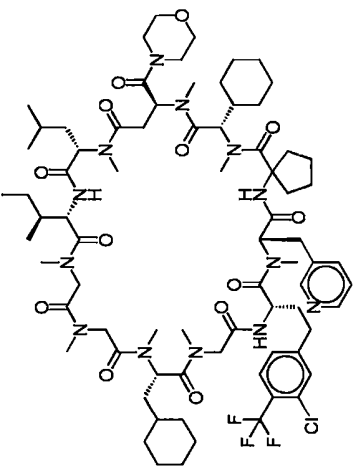
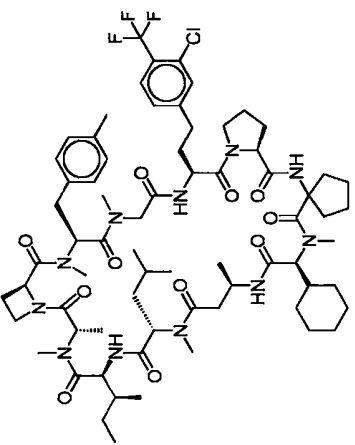
	
1734	1736
	
1733	1735

[5611]

	
1738	1740
	
1737	1739

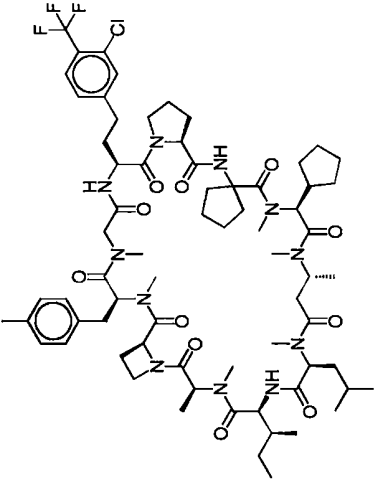
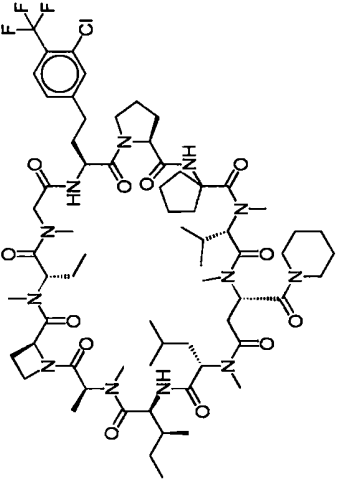
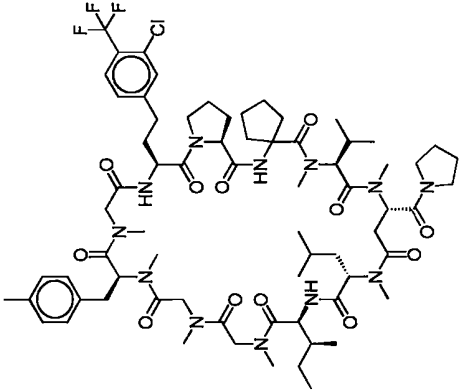
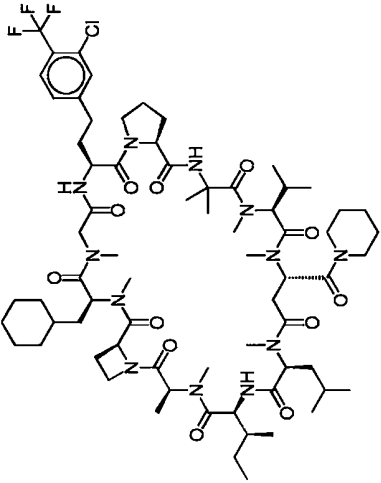
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1742	1744
	
1741	1743

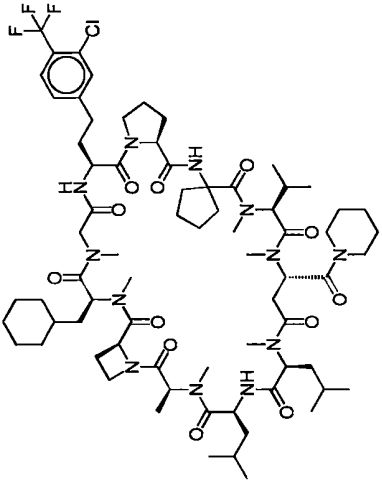
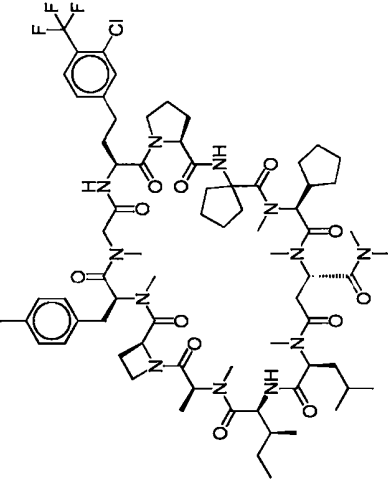
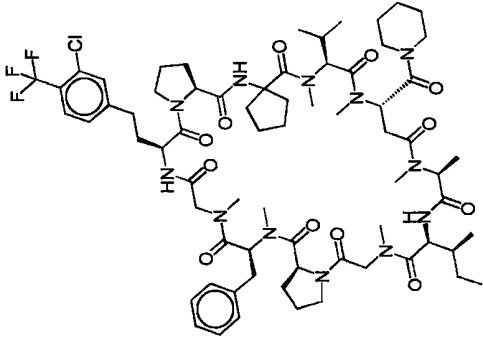
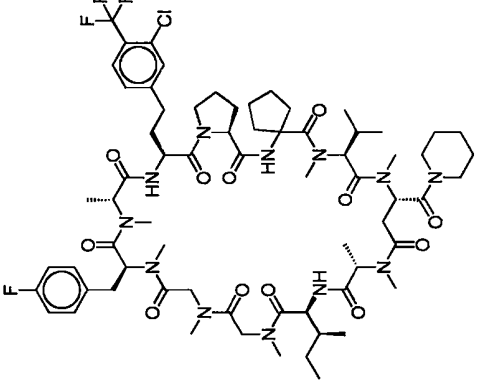
	
1746	1748
	
1745	1747

[5613]

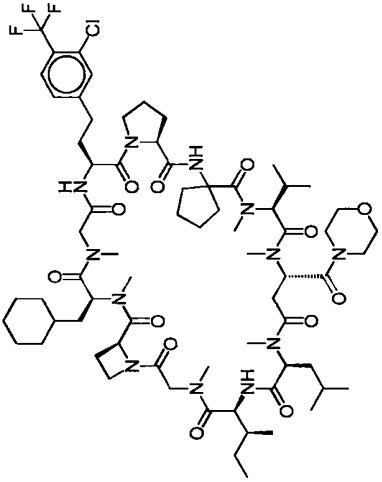
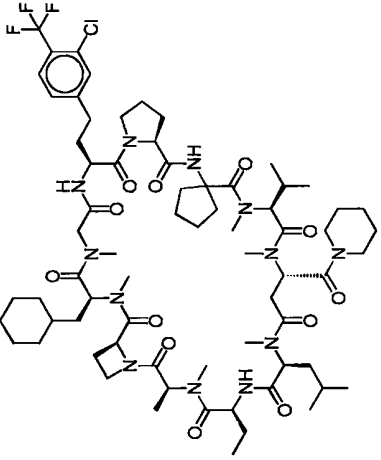
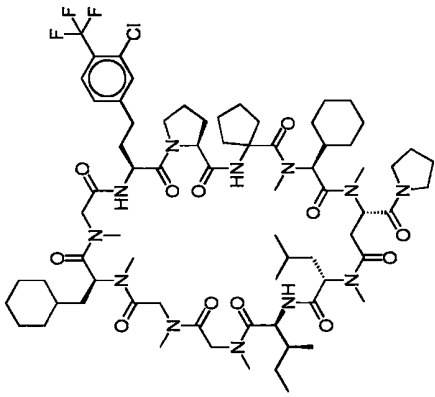
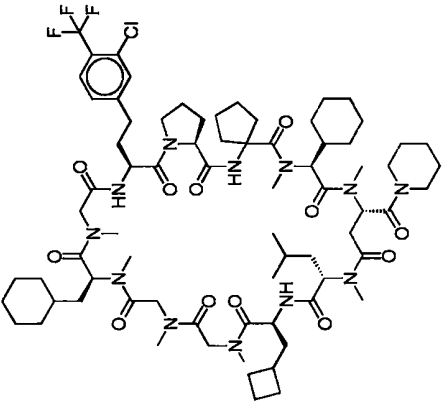
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1750	1752
	
1749	1751

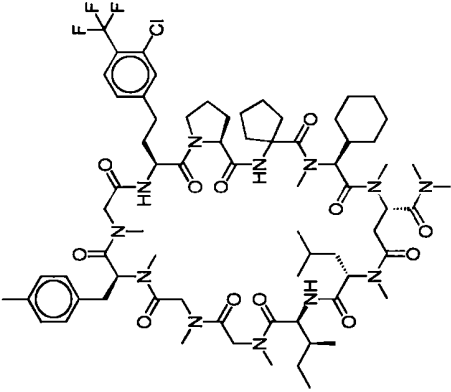
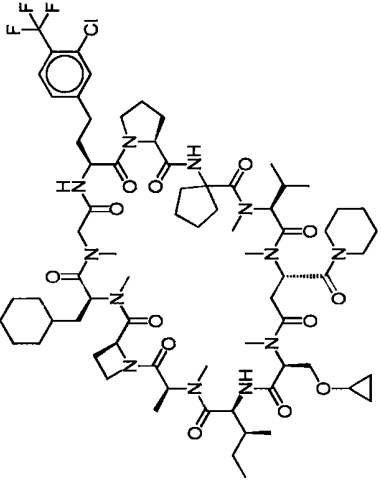
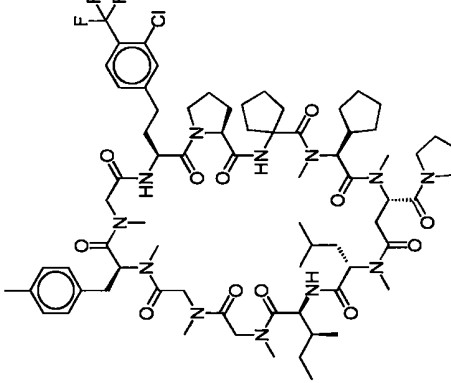
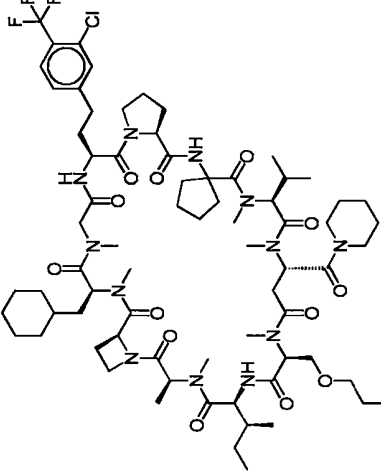
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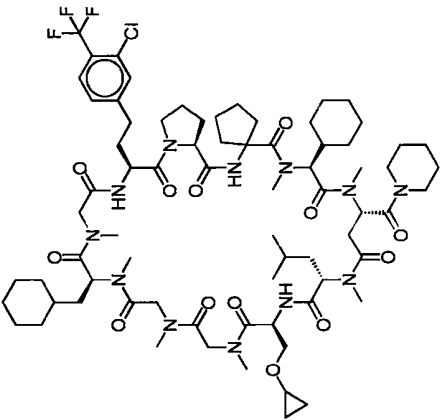
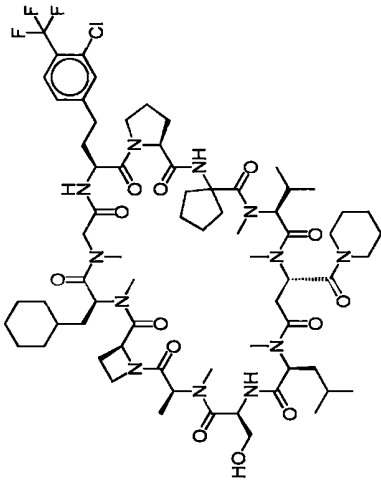
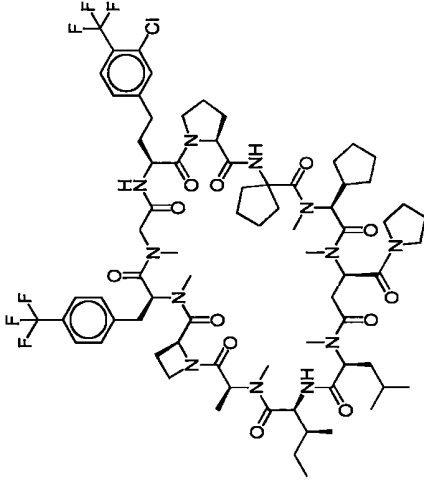
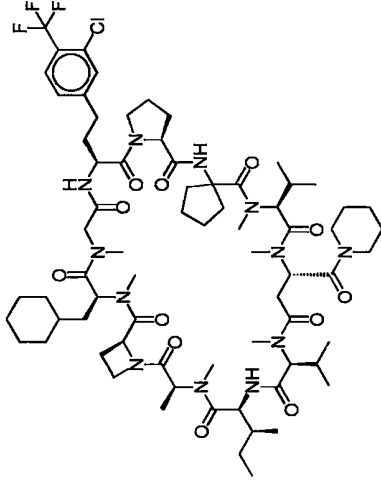
	
1754	1756
	
1753	1755

[5616]

	
1758	1760
	
1757	1759

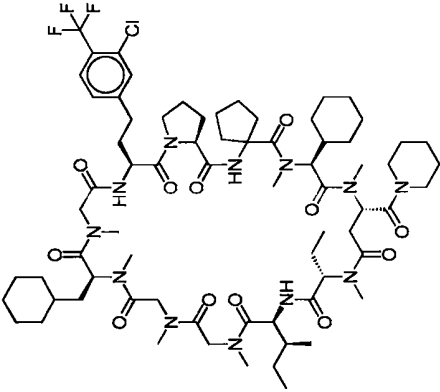
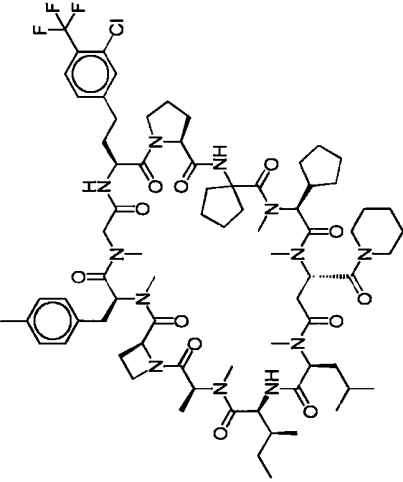
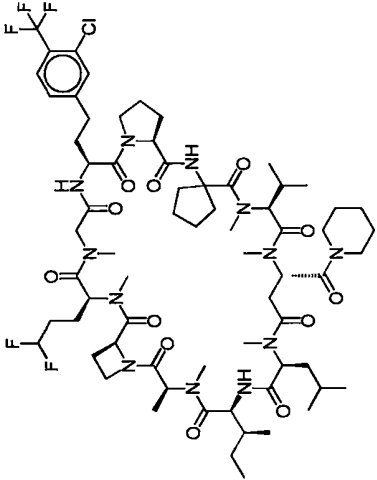
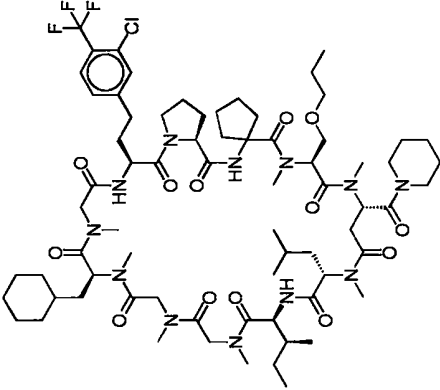
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1762	1764
	
1761	1763

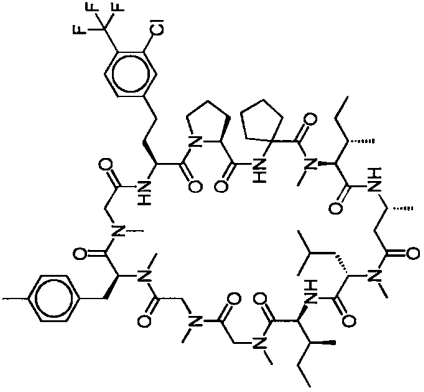
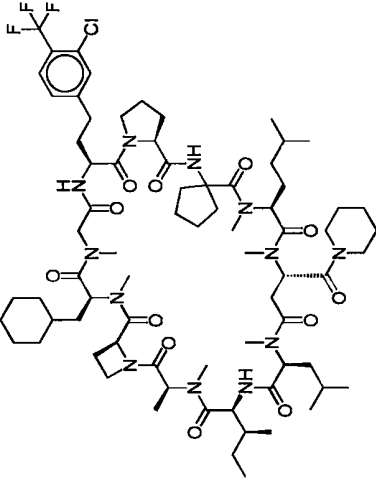
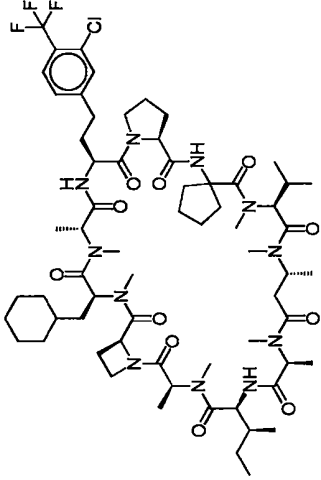
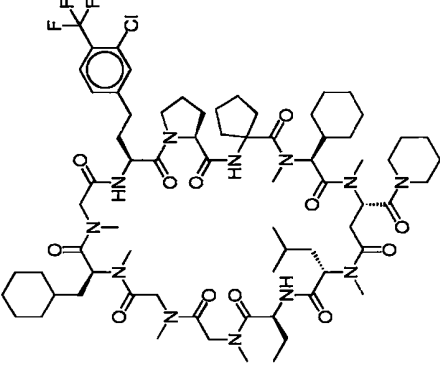
	
1766	1768
	
1765	1767

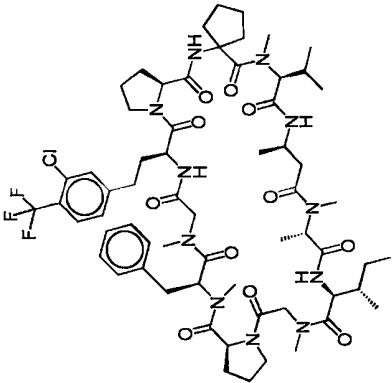
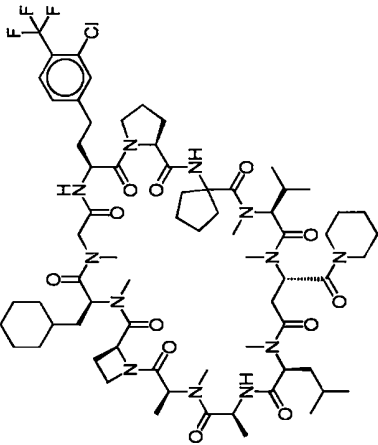
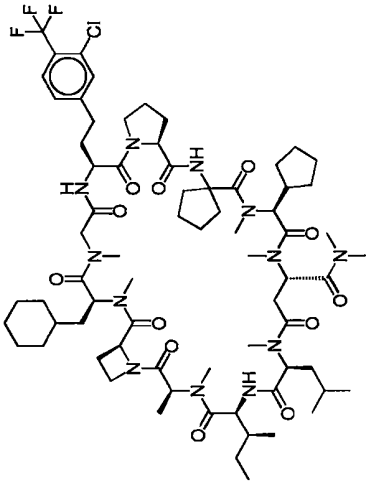
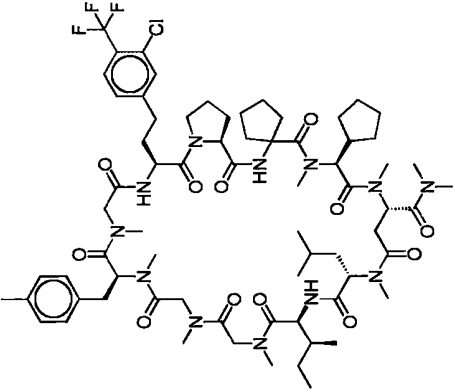
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[5619]

	
1770	1772
	
1769	1771

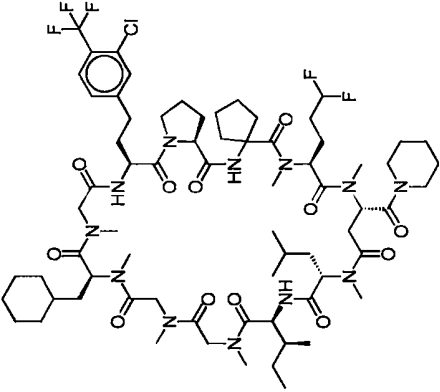
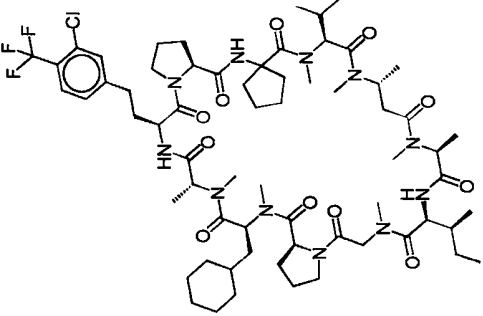
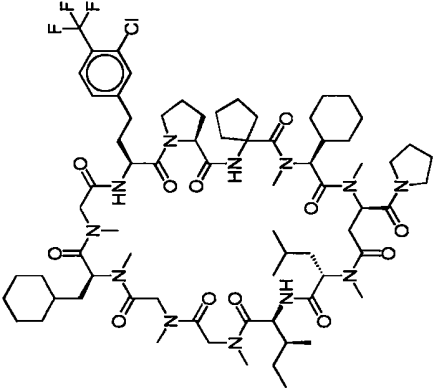
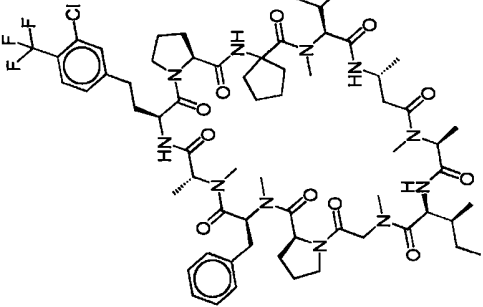
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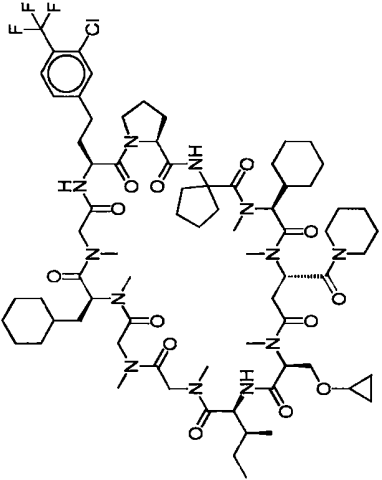
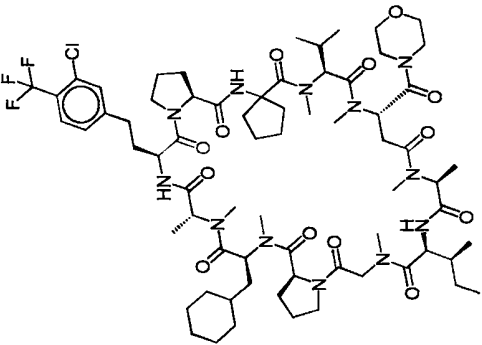
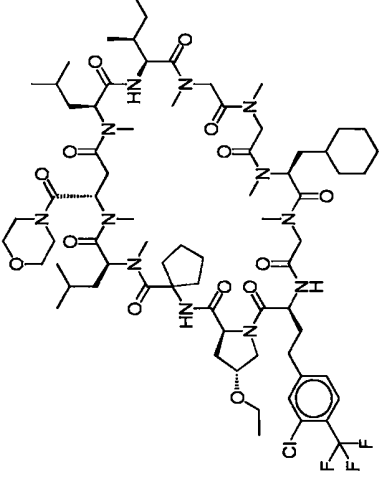
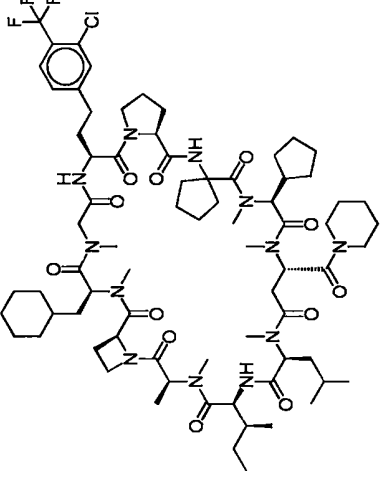
	
1774	1776
	
1773	1775

	
1778	1780
	
1777	1779

[5621]

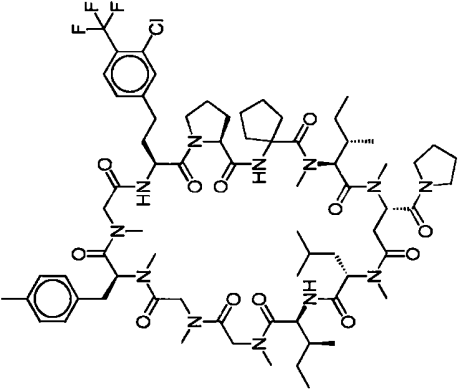
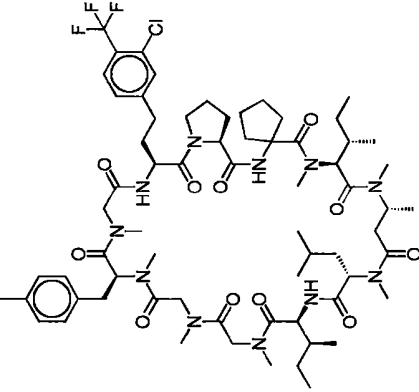
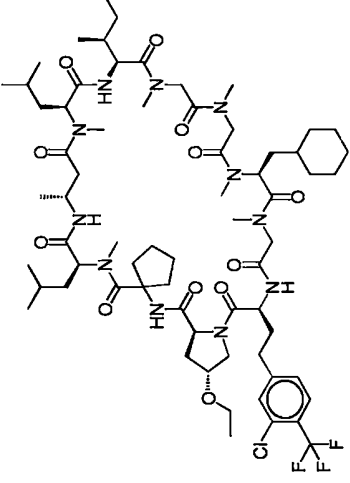
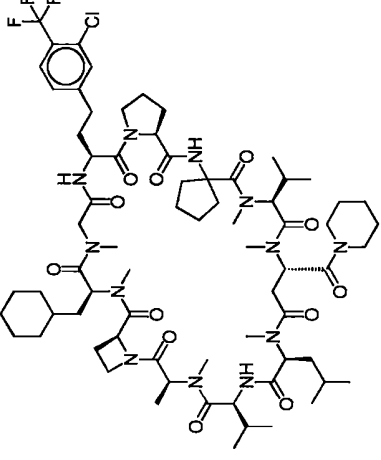
[5622]

	
1782	1784
	
1781	1783

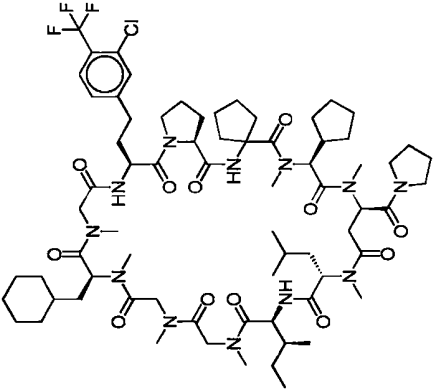
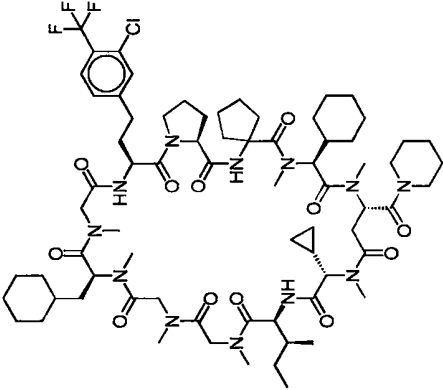
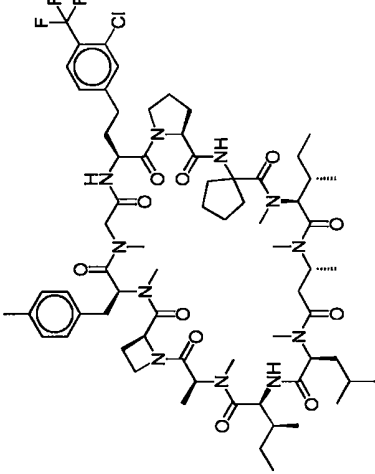
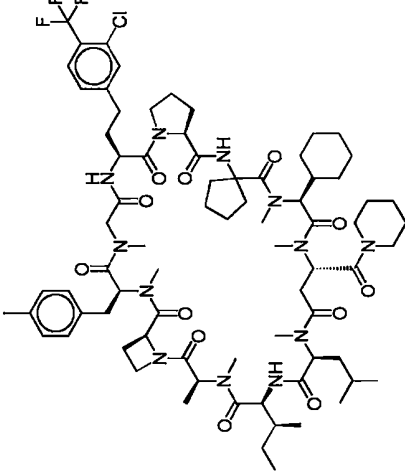
	
1786	1788
	
1785	1787

[5623]

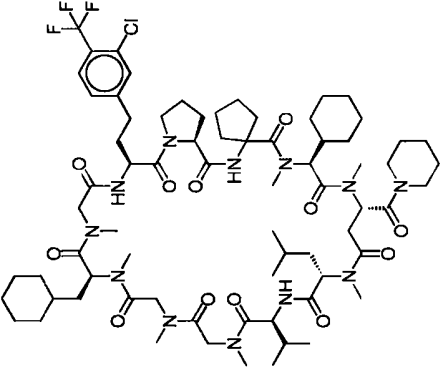
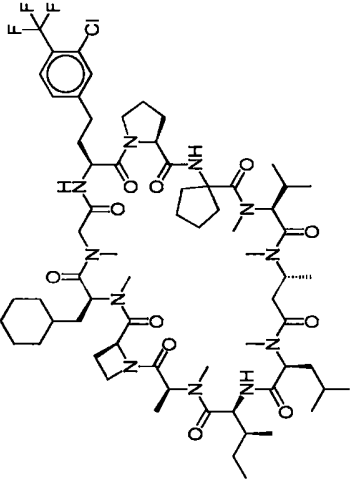
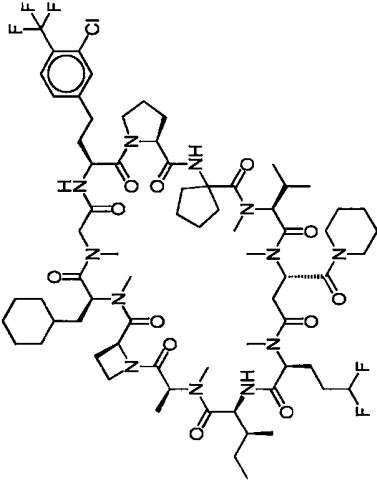
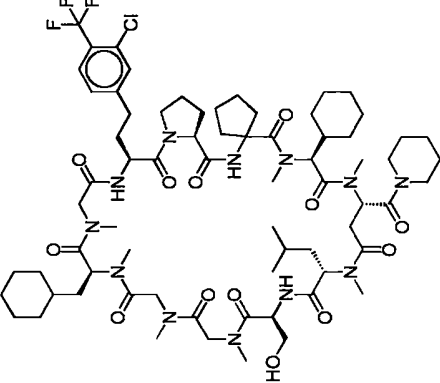
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1790	1792
	
1789	1791

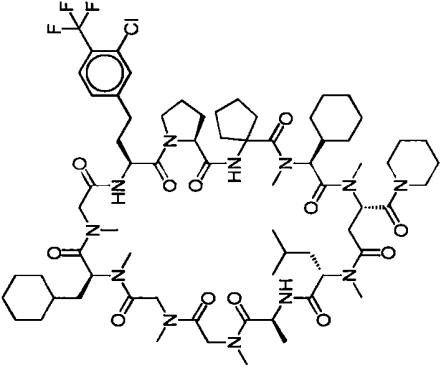
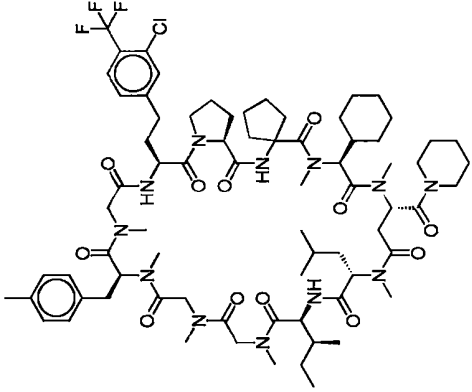
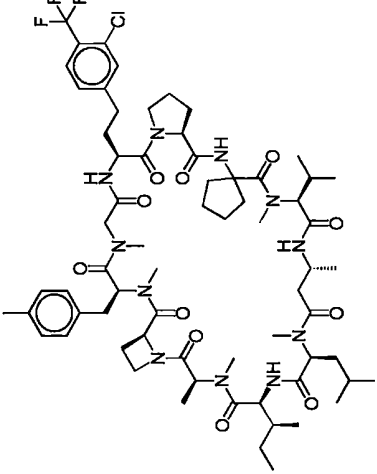
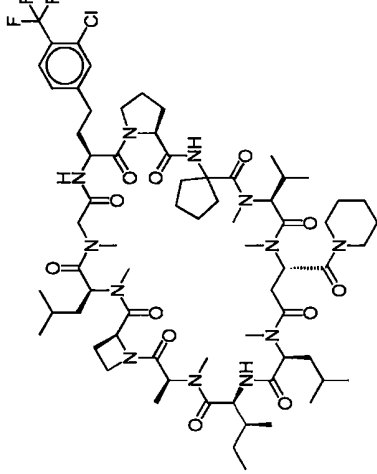
[5625]

	
1794	1796
	
1793	1795

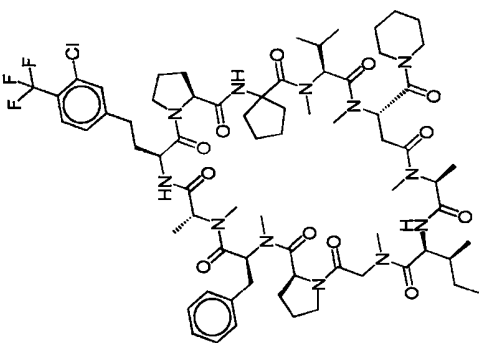
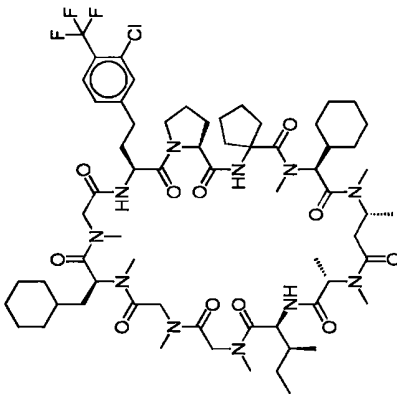
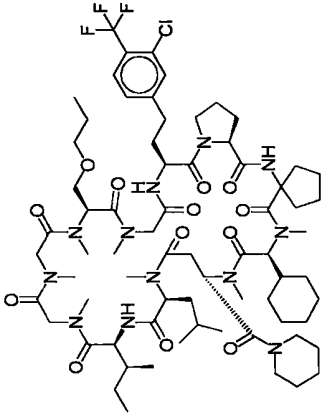
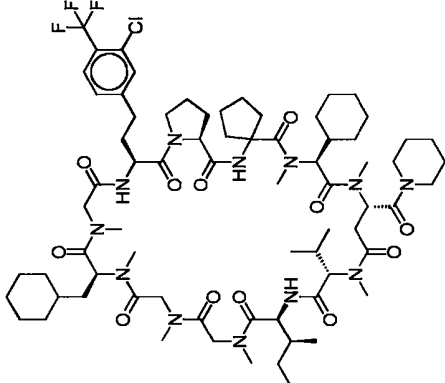
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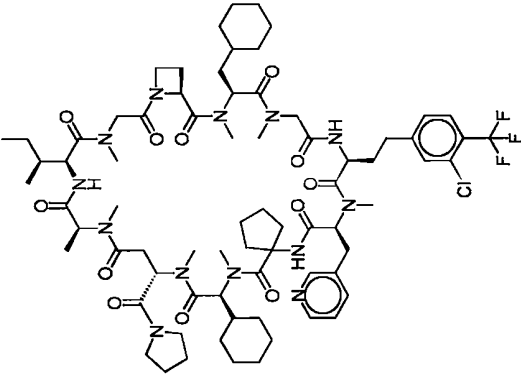
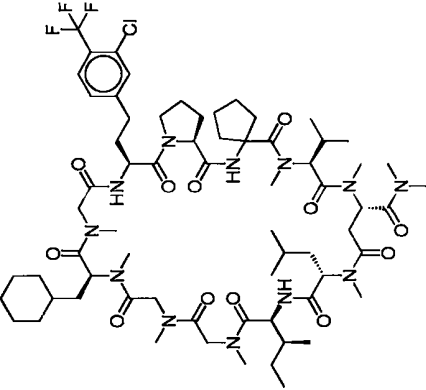
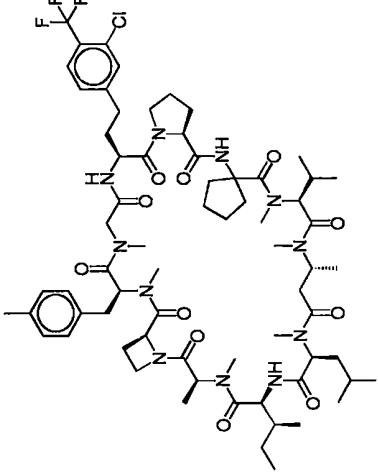
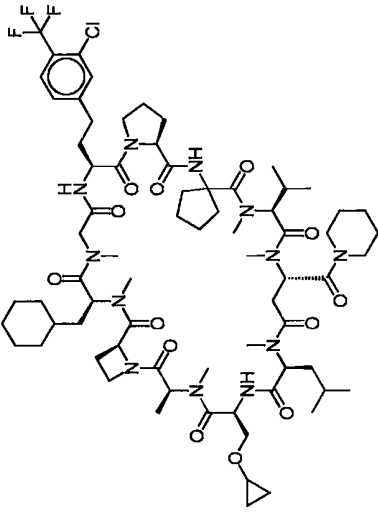
	
1798	1800
	
1797	1799

[5627]

	
1802	1804
	
1801	1803

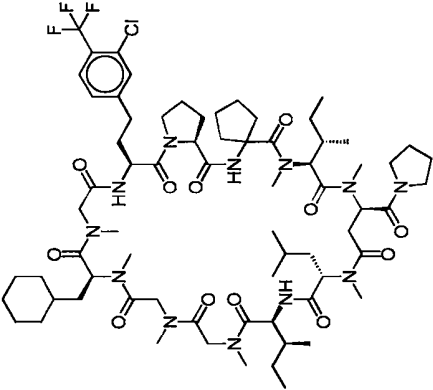
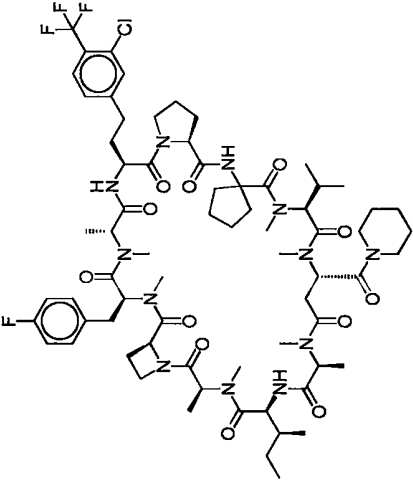
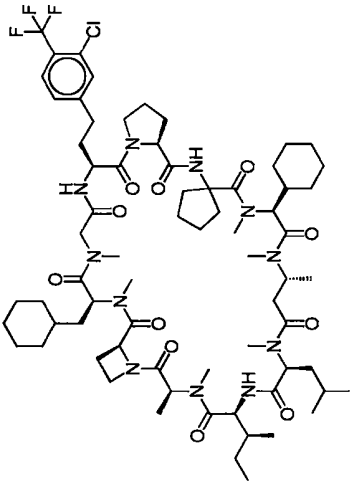
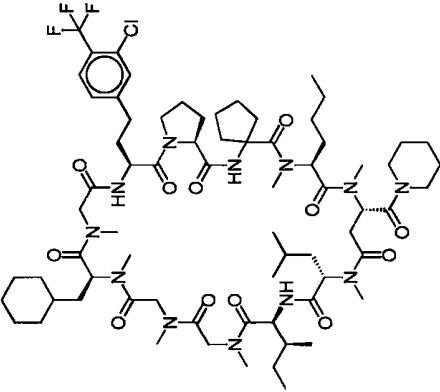
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1806	1808
	
1805	1807

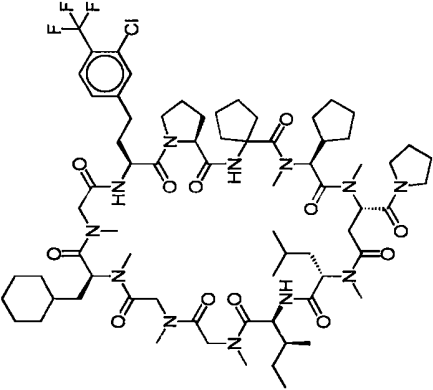
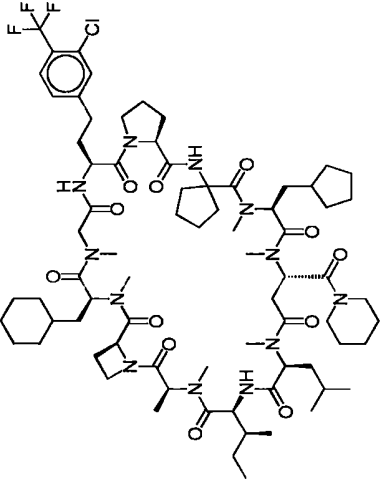
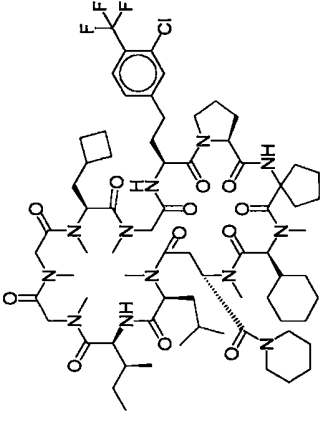
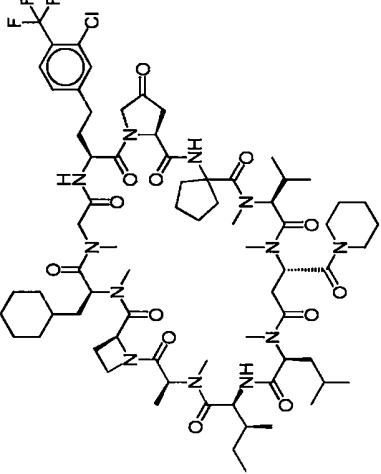
	
1810	1812
	
1809	1811

[5629]

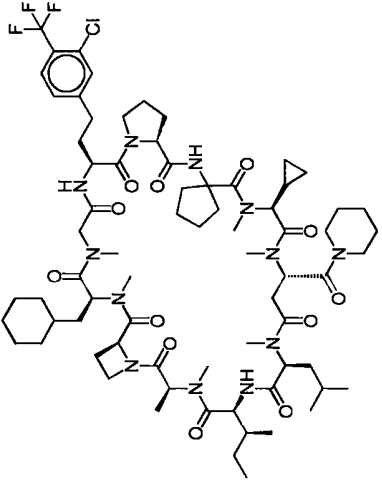
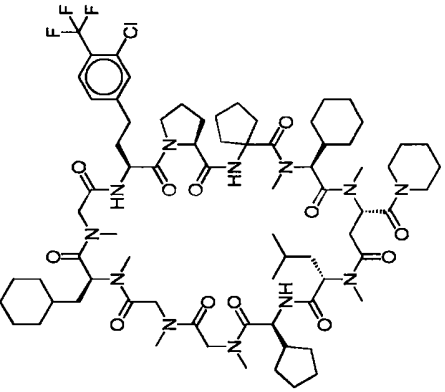
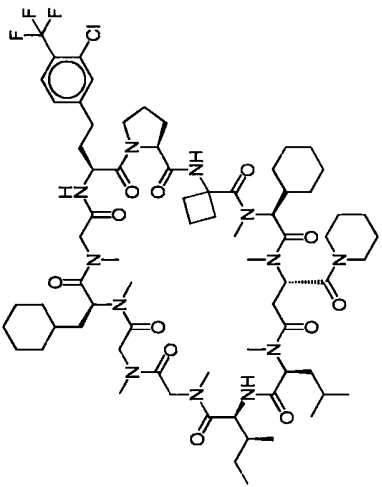
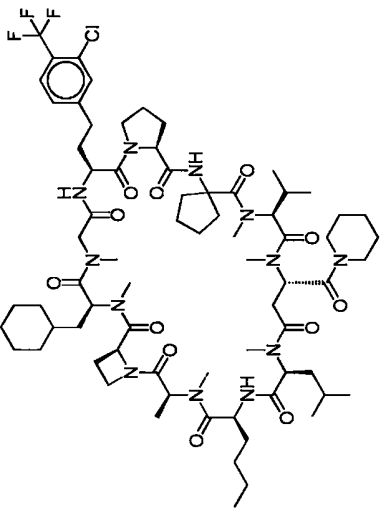
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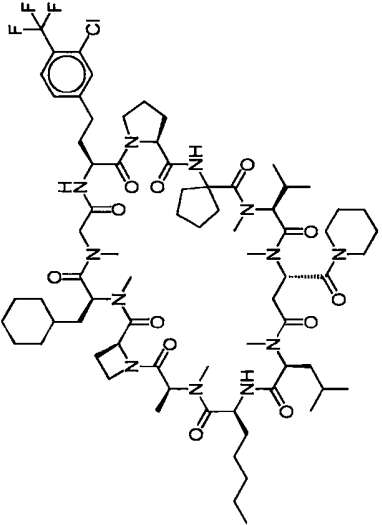
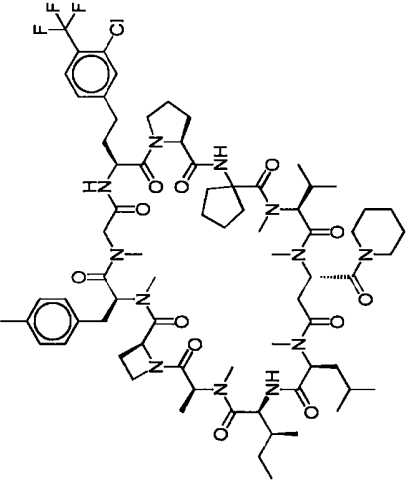
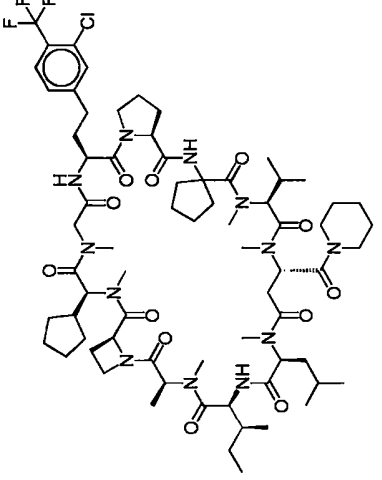
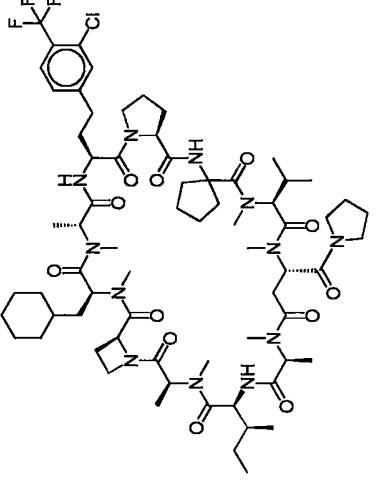
	
1814	1816
	
1813	1815

[5631]

	
1818	1820
	
1817	1819

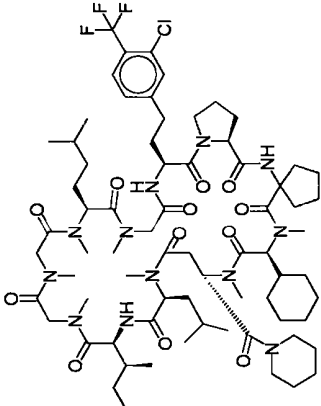
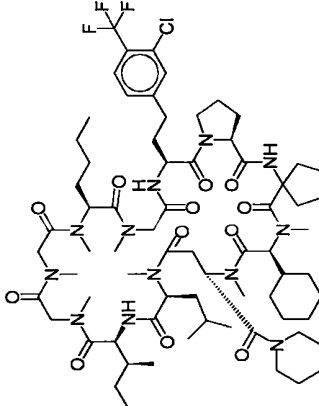
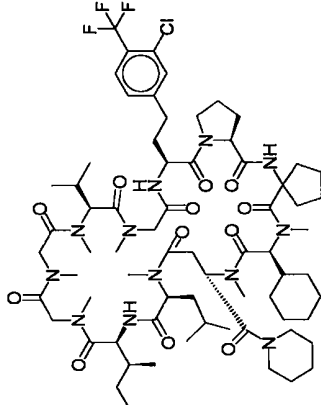
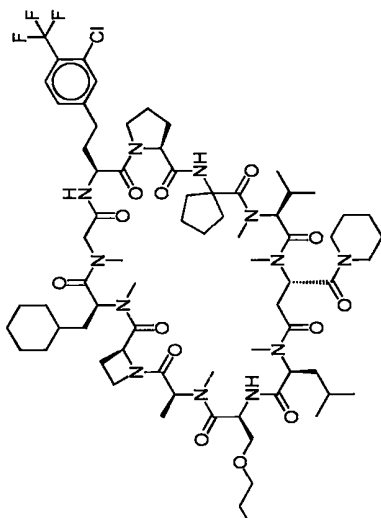
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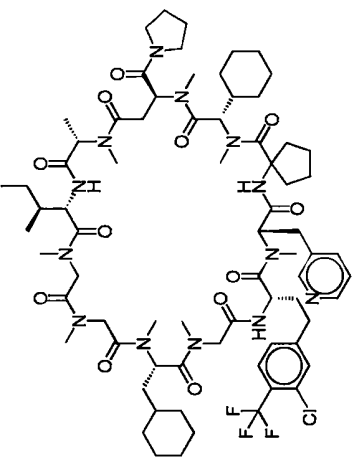
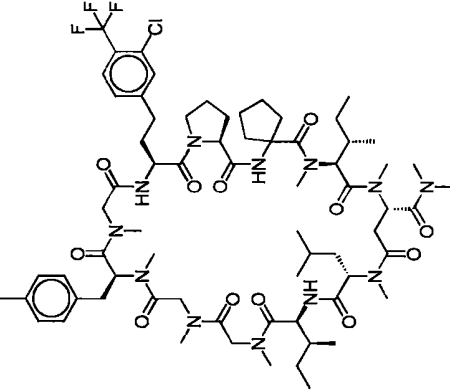
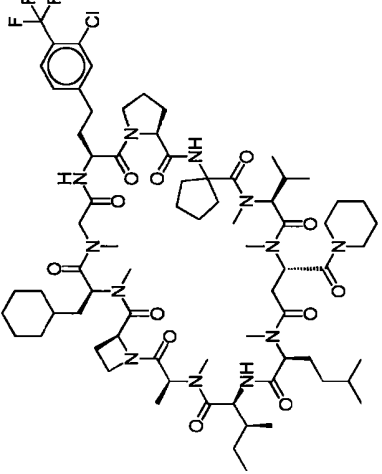
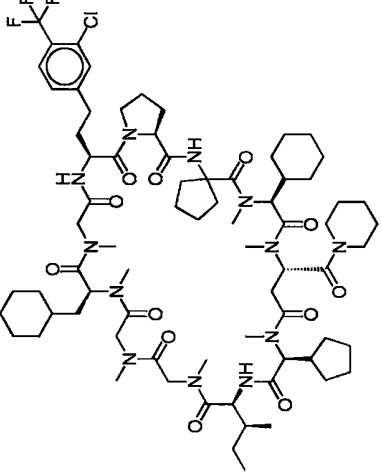
	
1822	1824
	
1821	1823

	
1826	1828
	
1825	1827

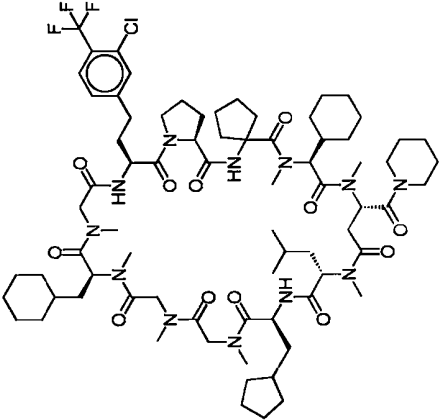
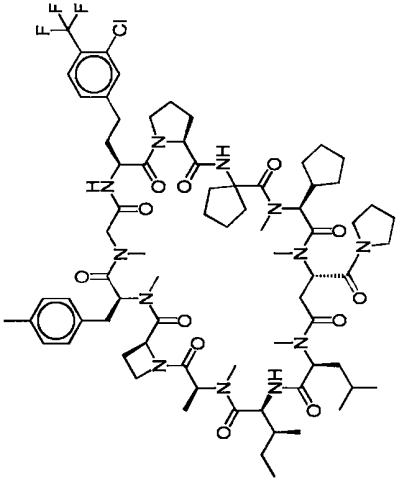
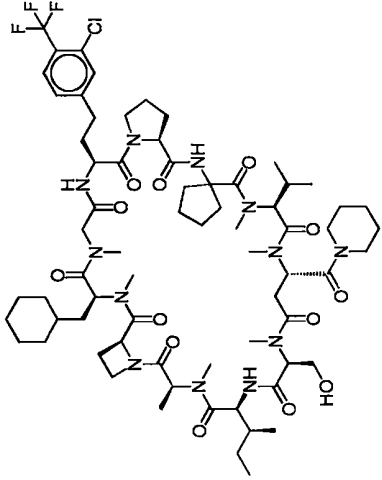
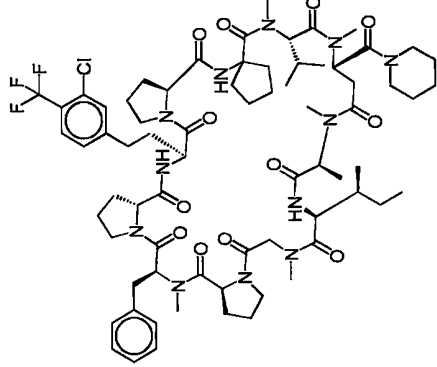
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[5634]

	
1830	1832
	
1829	1831

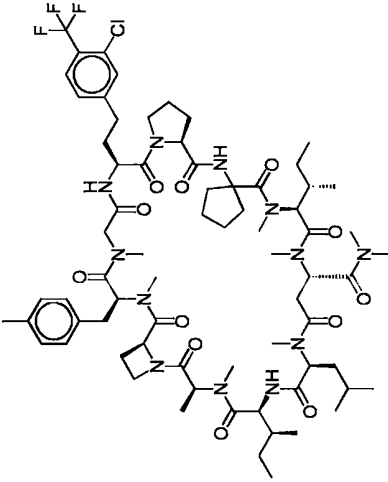
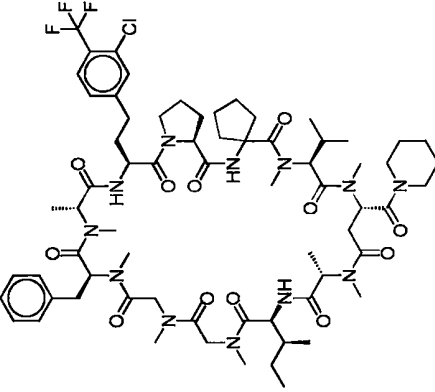
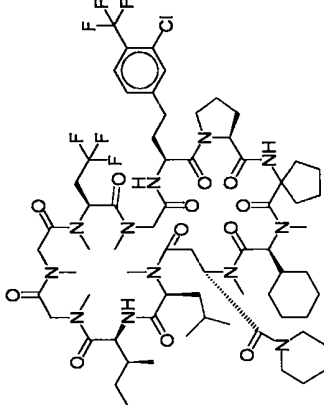
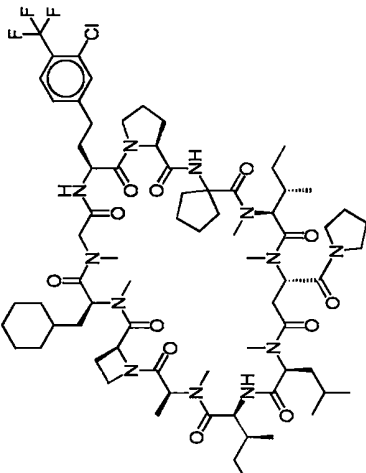
	
1834	1836
	
1833	1835

[5635]

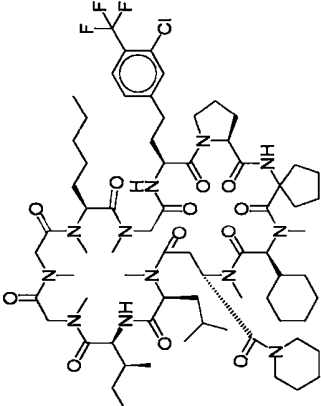
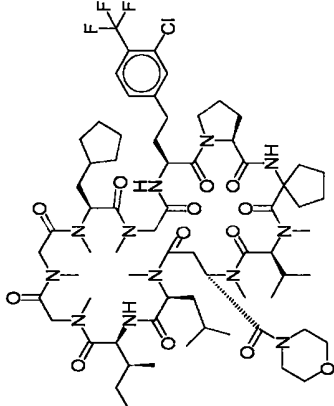
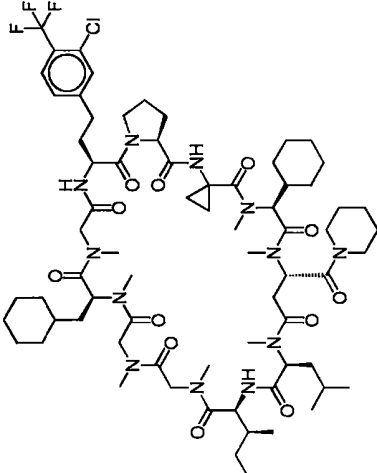
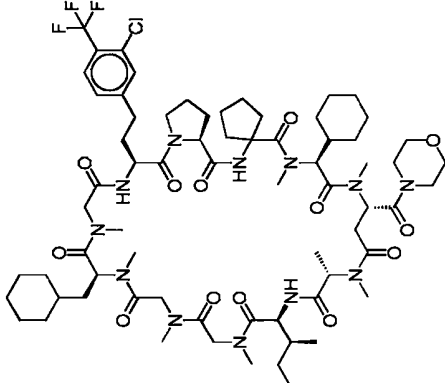
	
1838	1840
	
1837	1839

[5636]

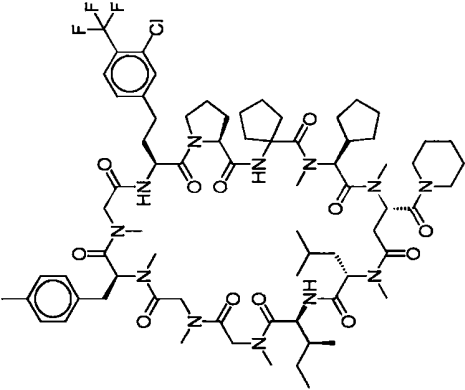
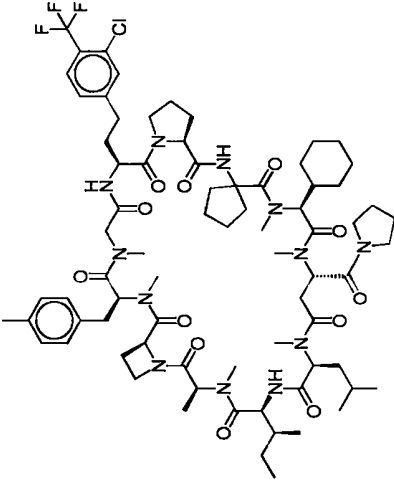
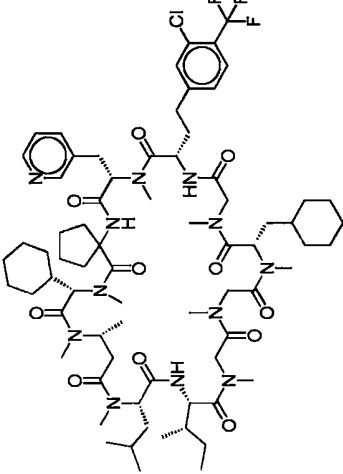
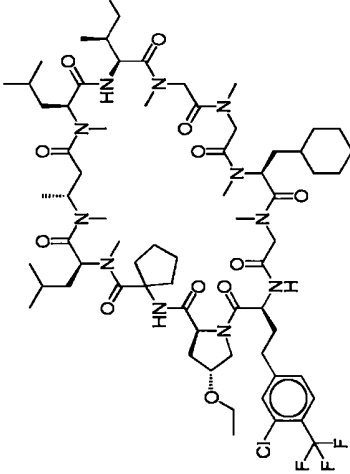
[5637]

	
1842	1844
	
1841	1843

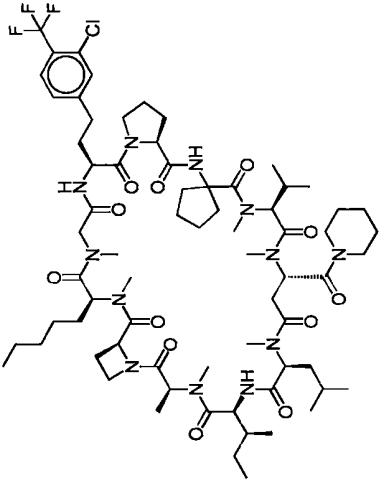
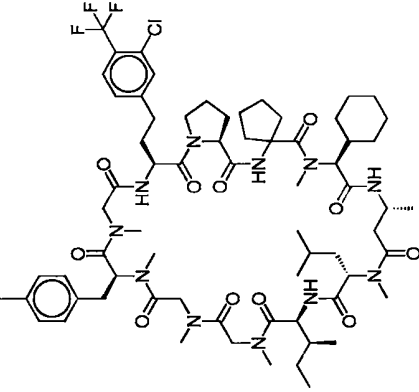
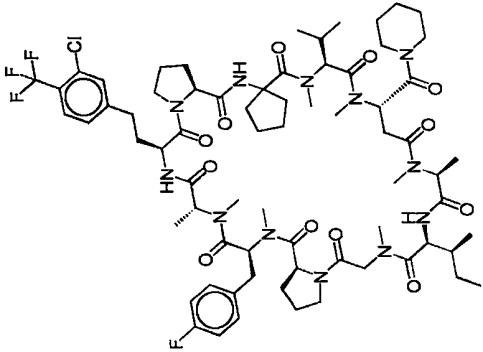
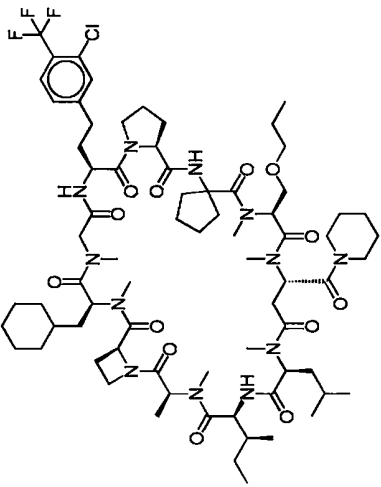
[5638]

	
1846	1848
	
1845	1847

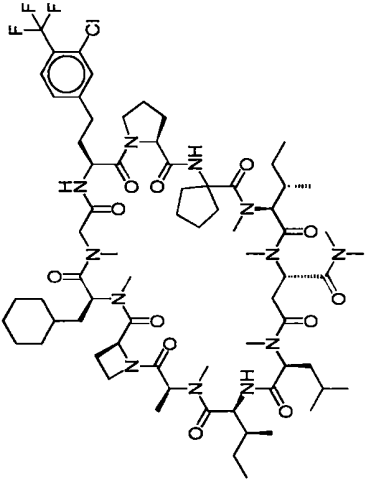
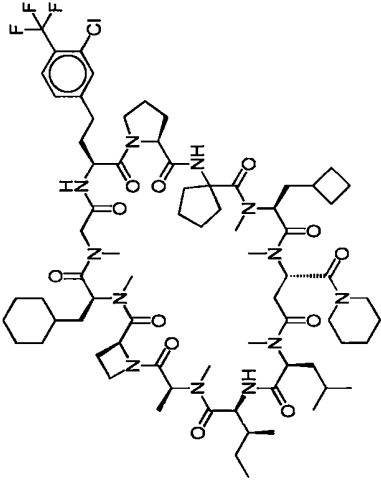
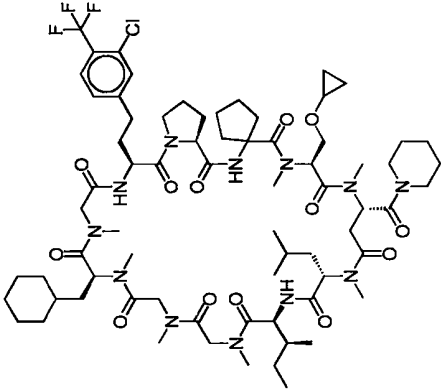
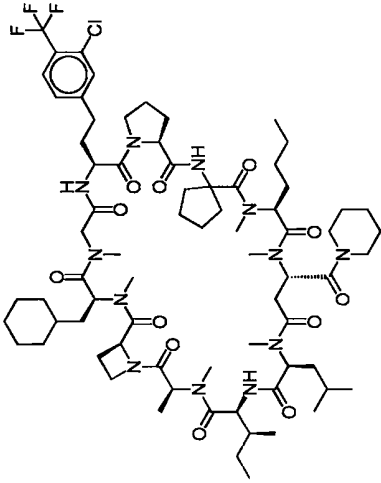
[5639]

	
1850	1852
	
1849	1851

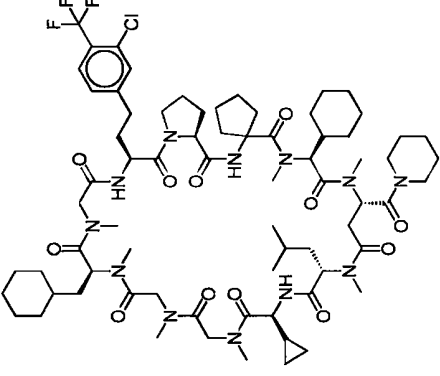
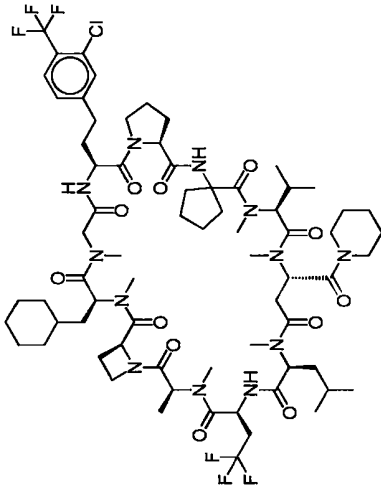
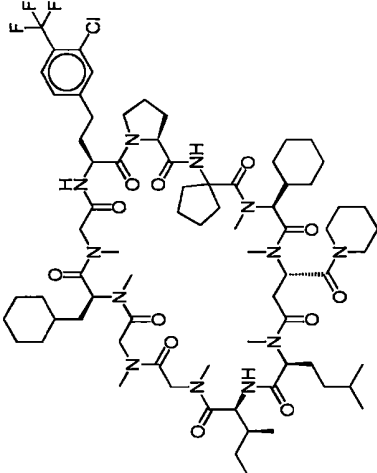
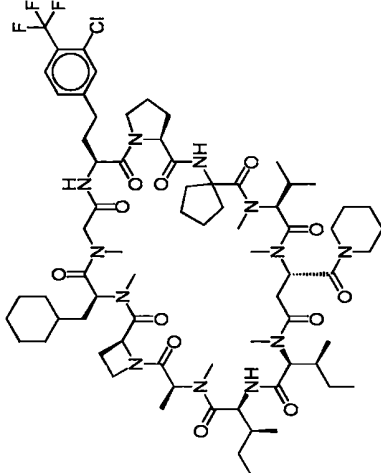
[5640]

	
1854	1856
	
1853	1855

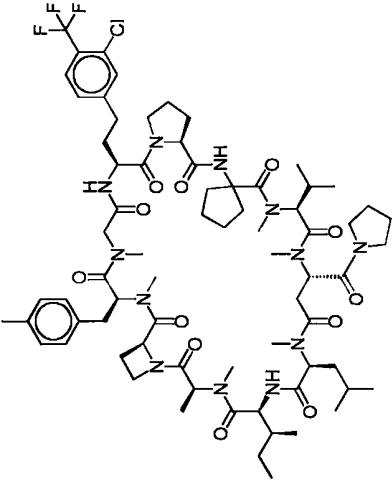
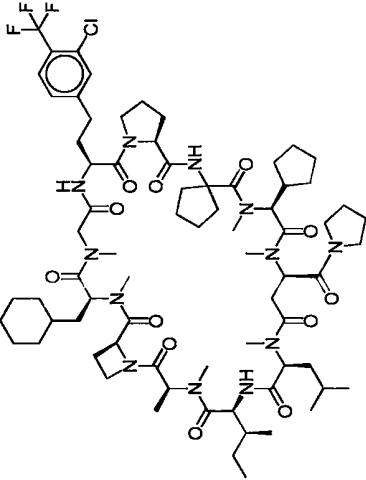
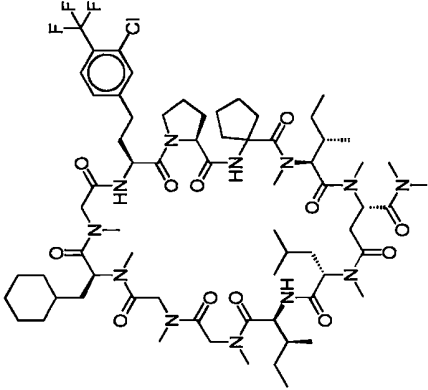
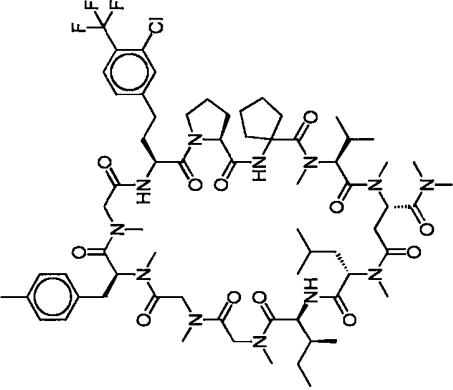
[5641]

	
1858	1860
	
1857	1859

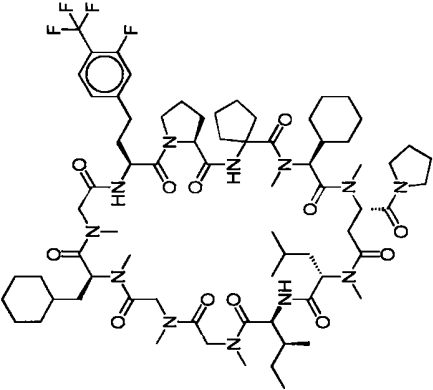
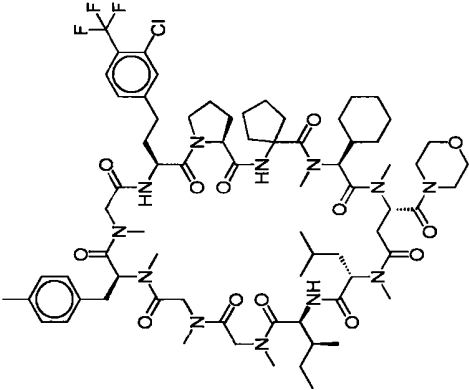
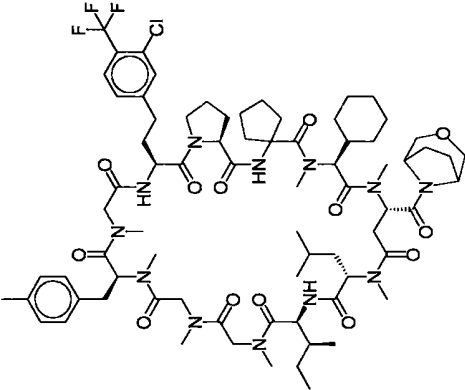
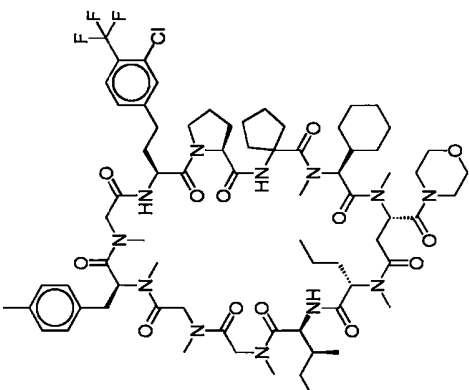
[5642]

	
1862	1864
	
1861	1863

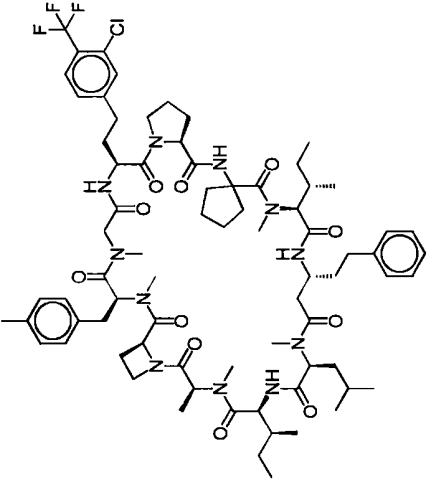
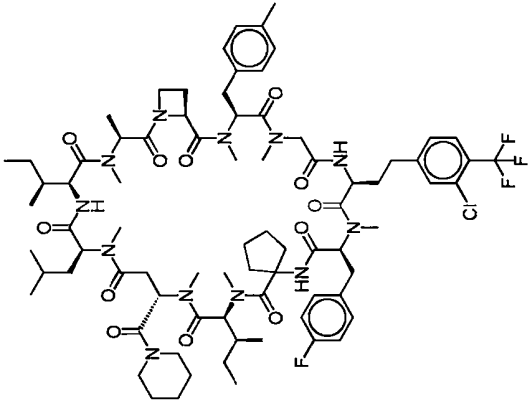
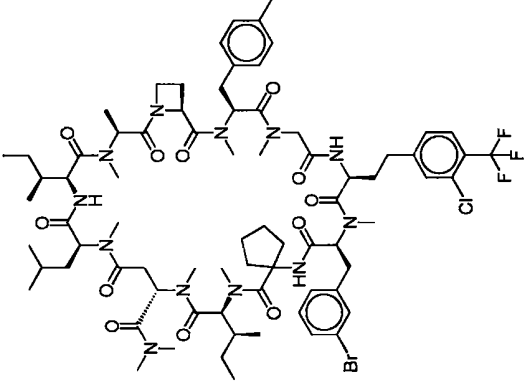
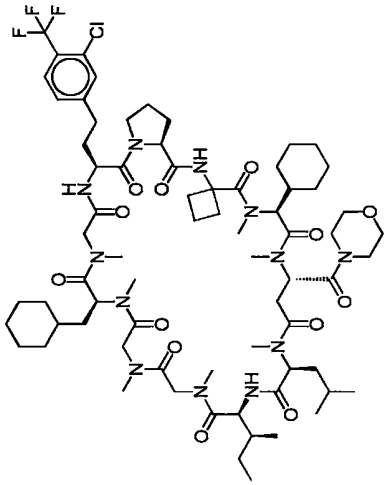
[5643]

	
1866	1868
	
1865	1867

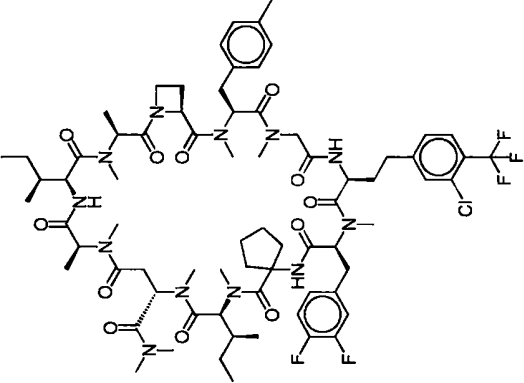
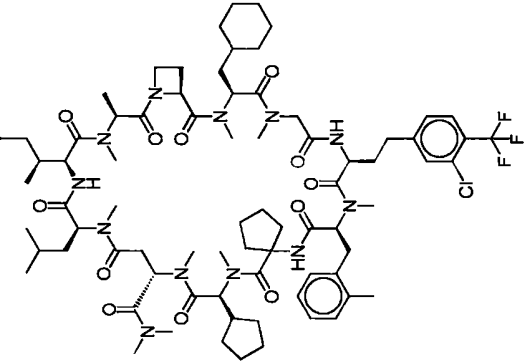
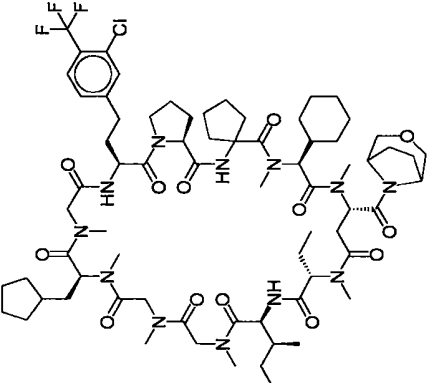
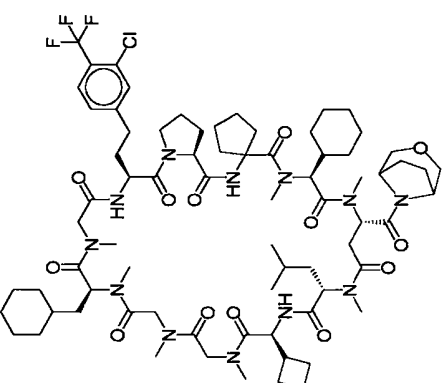
[5644]

	
1870	1872
	
1869	1871

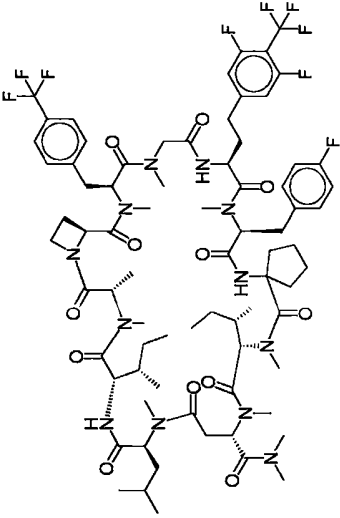
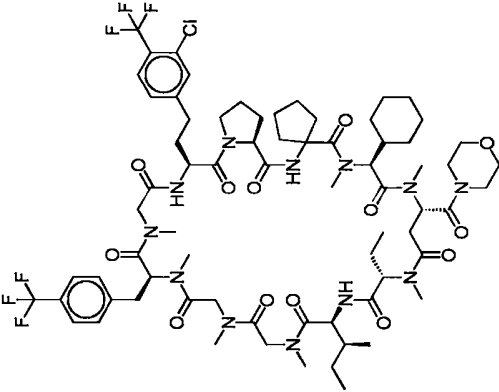
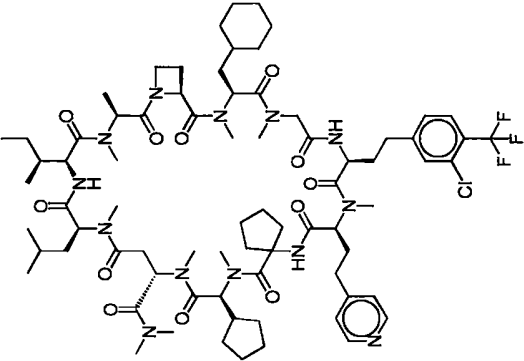
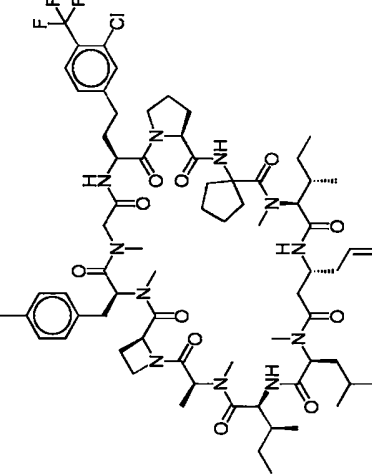
[5645]

	
1874	1876
	
1873	1875

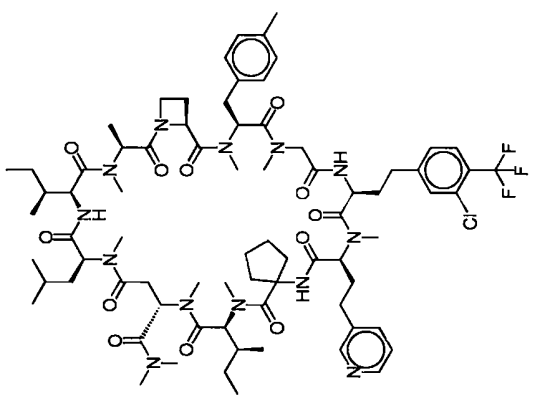
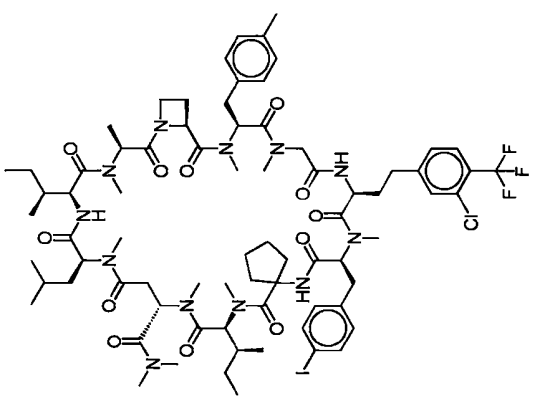
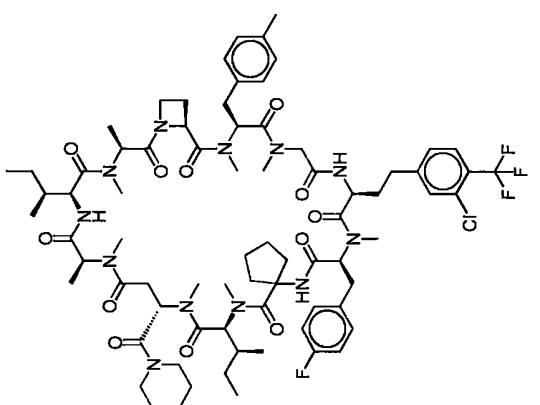
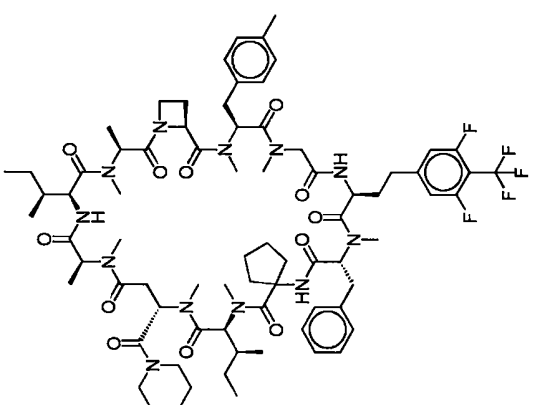
[5646]

	
1878	1880
	
1877	1879

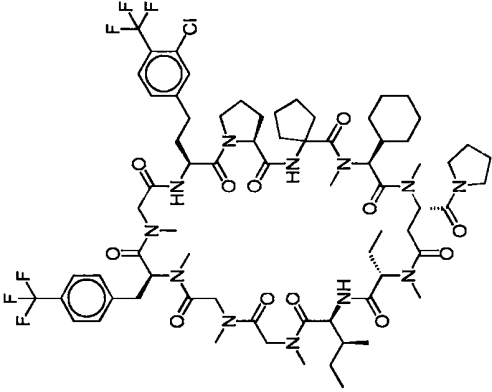
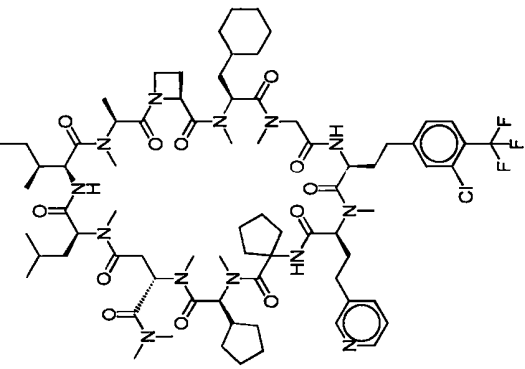
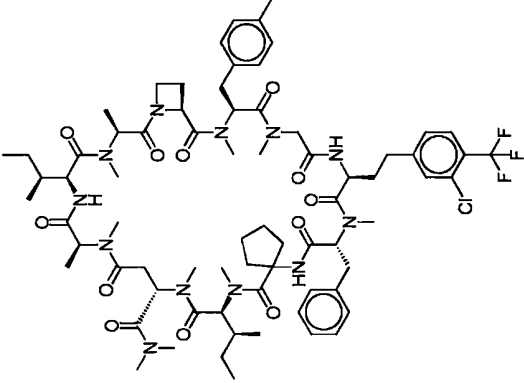
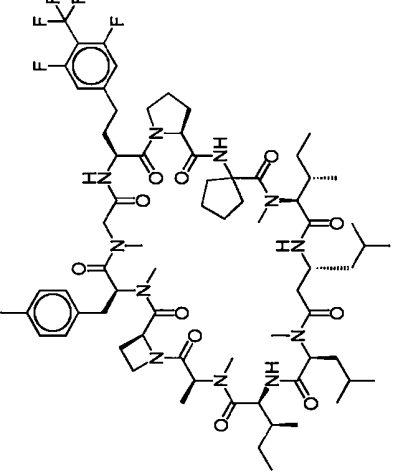
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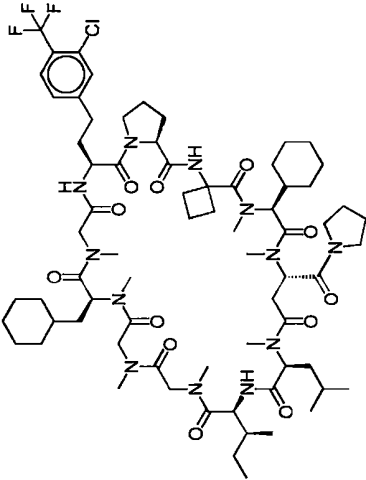
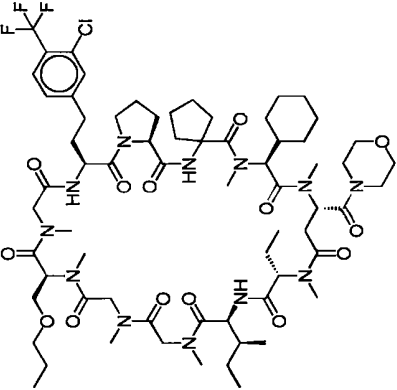
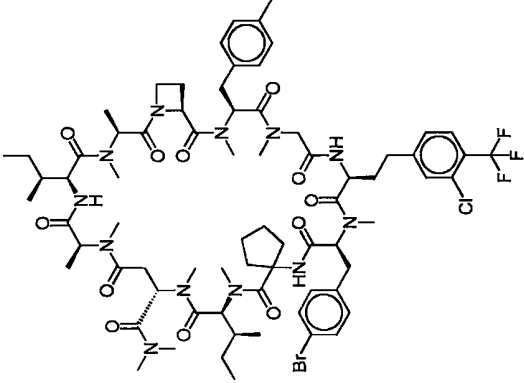
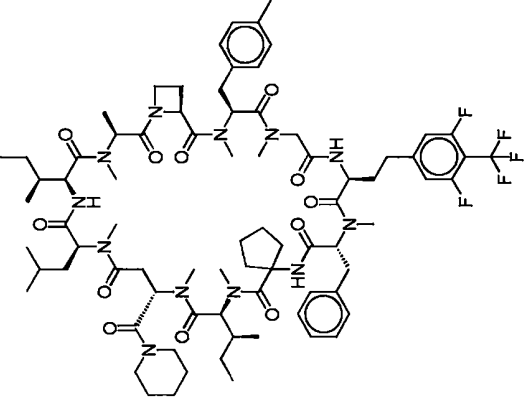
	
1882	1884
	
1881	1883

[5648]

	
1886	1888
	
1885	1887

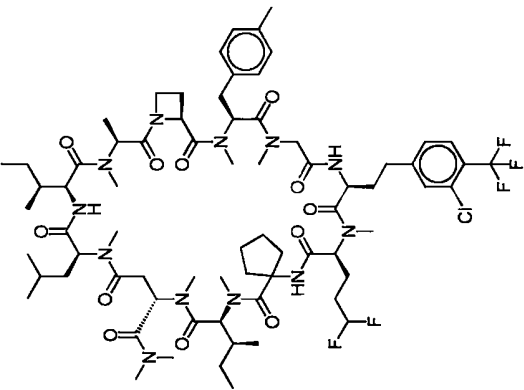
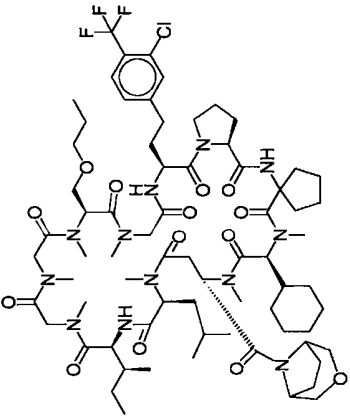
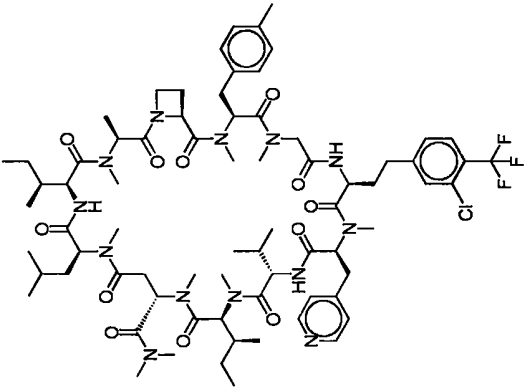
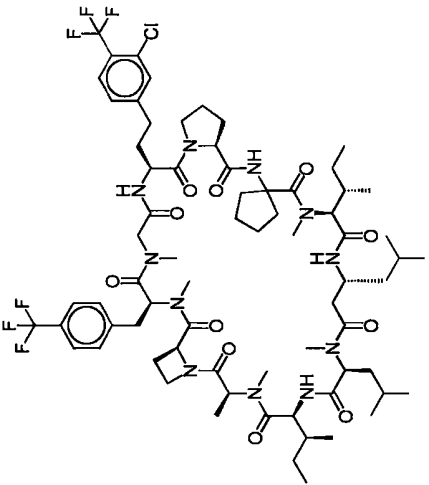
[5649]

	
1890	1892
	
1889	1891

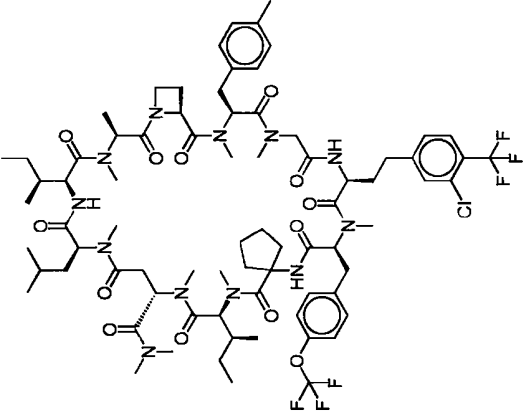
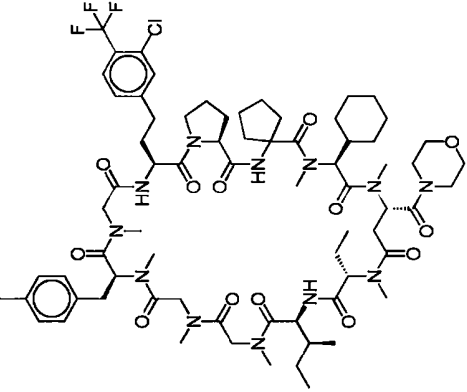
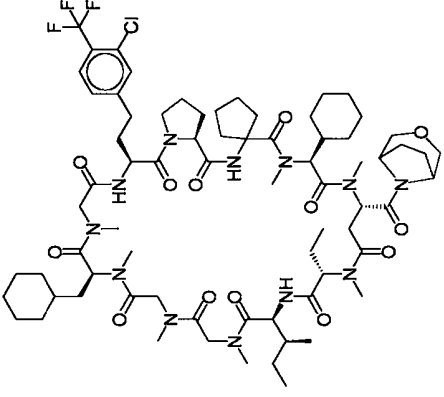
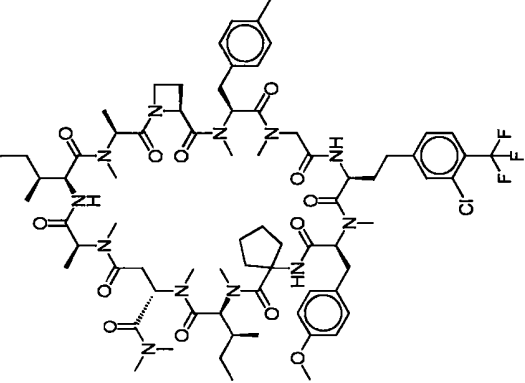
	
1894	1896
	
1893	1895

[5650]

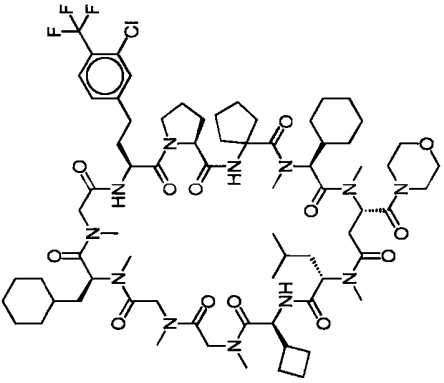
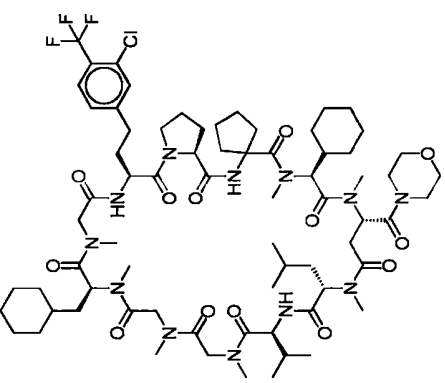
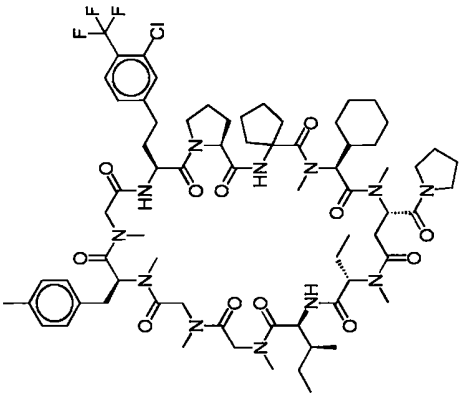
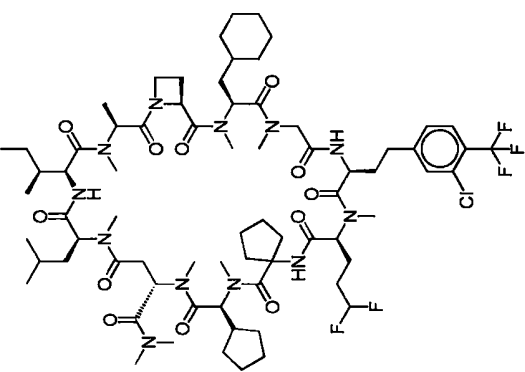
[5651]

	
1898	1900
	
1897	1899

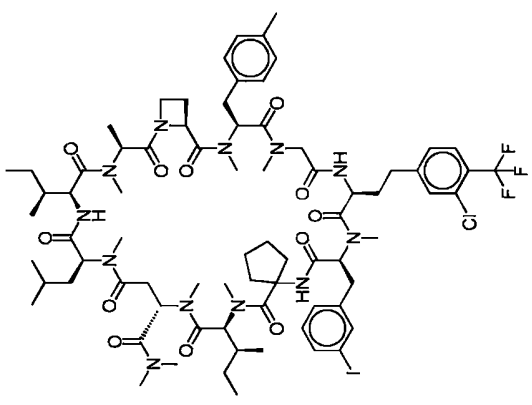
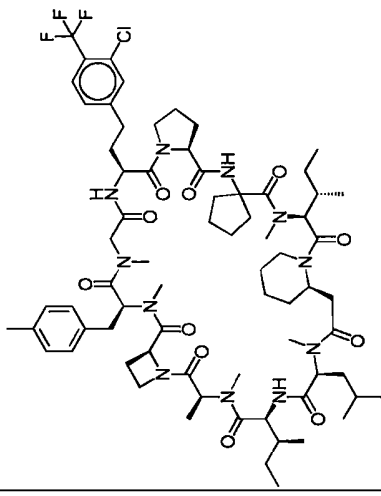
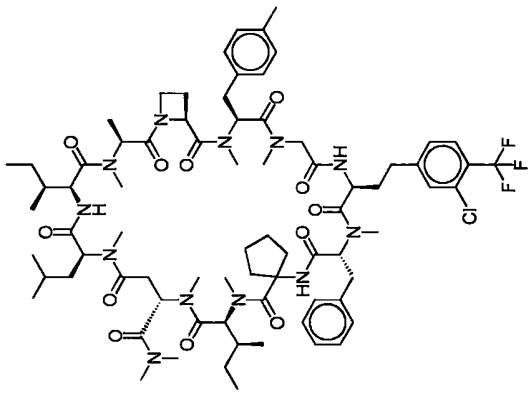
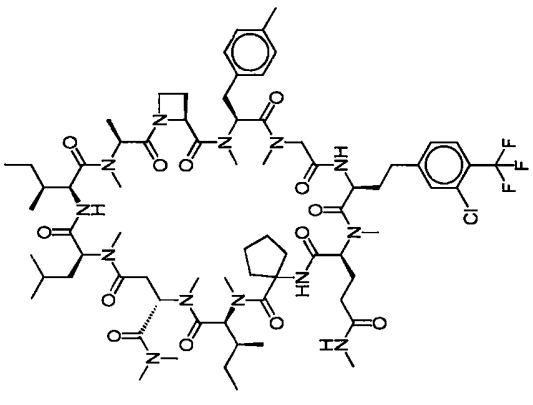
[5652]

	
1902	1904
	
1901	1903

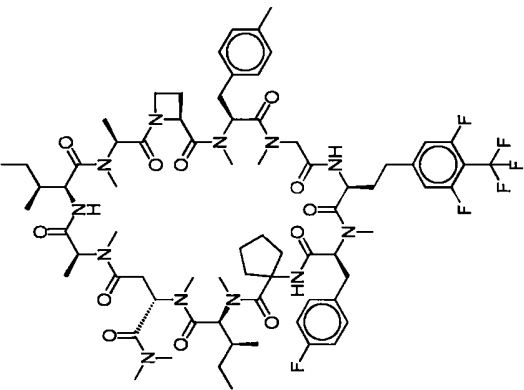
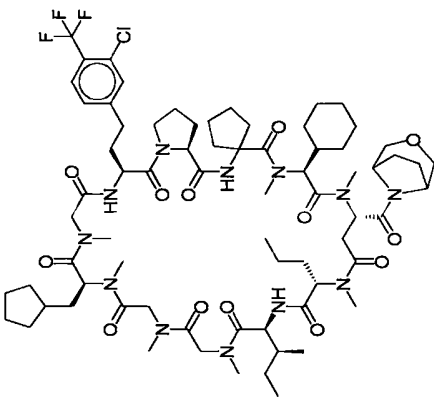
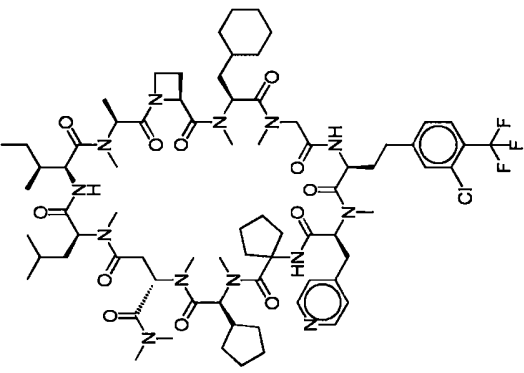
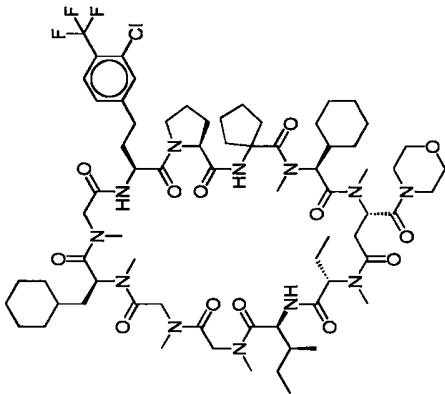
[5653]

	
1906	1908
	
1905	1907

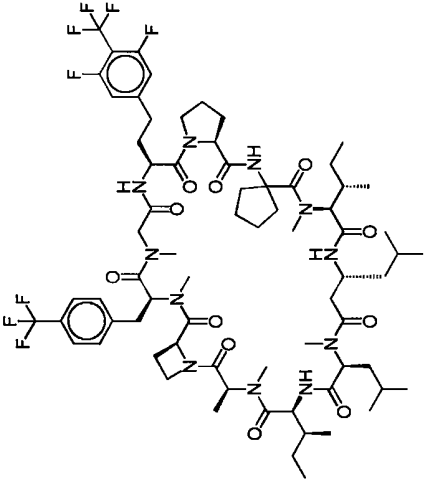
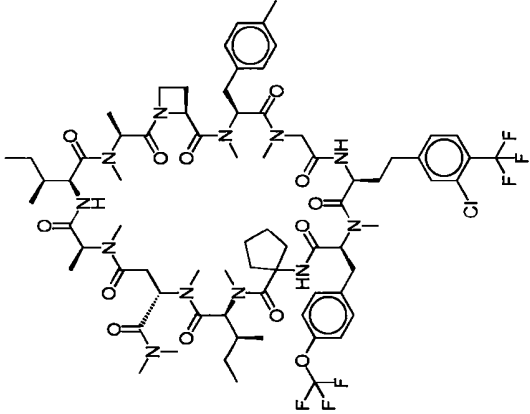
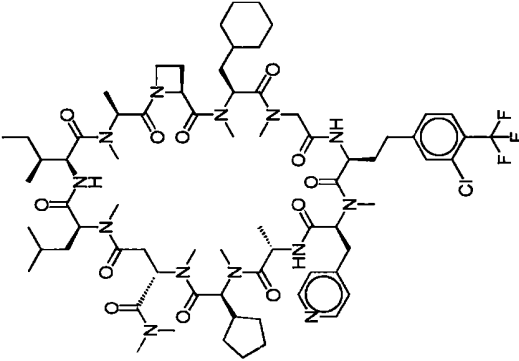
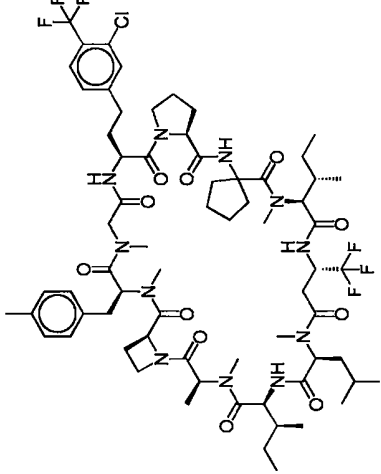
[5654]

	
1910	1912
	
1909	1911

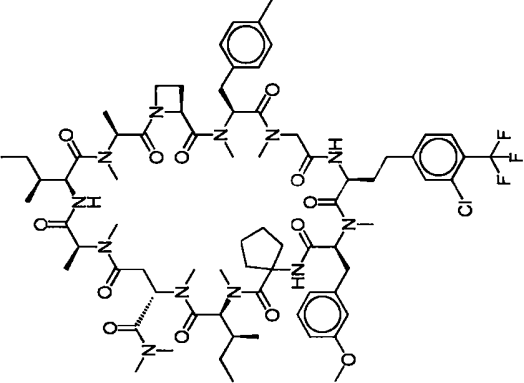
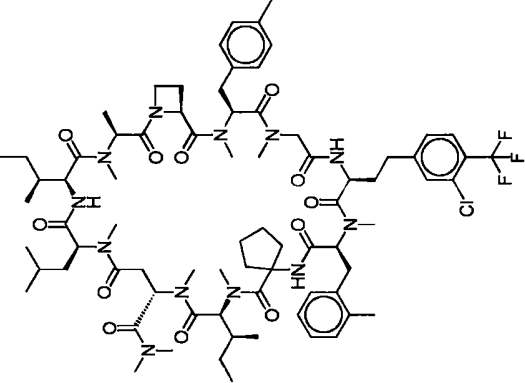
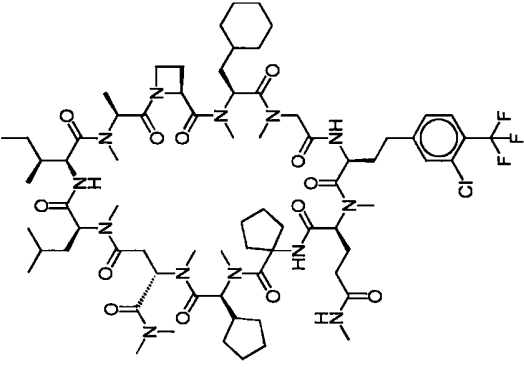
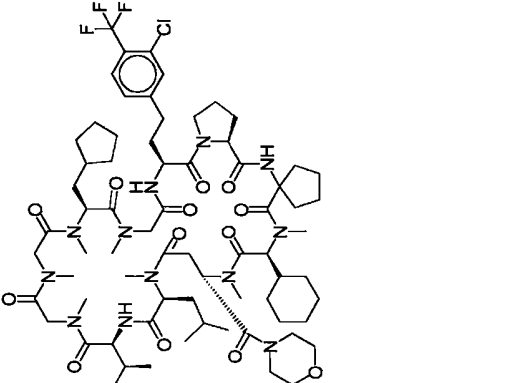
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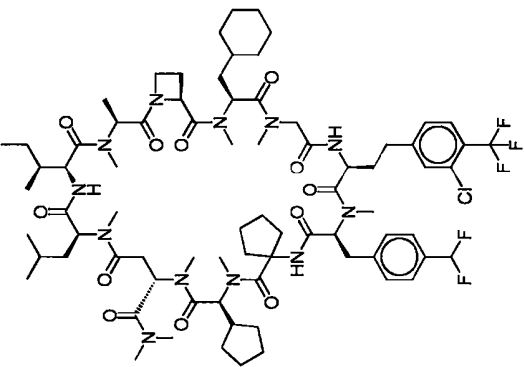
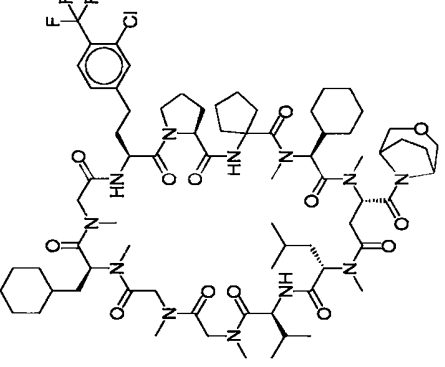
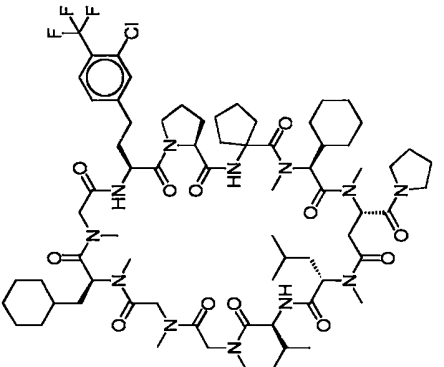
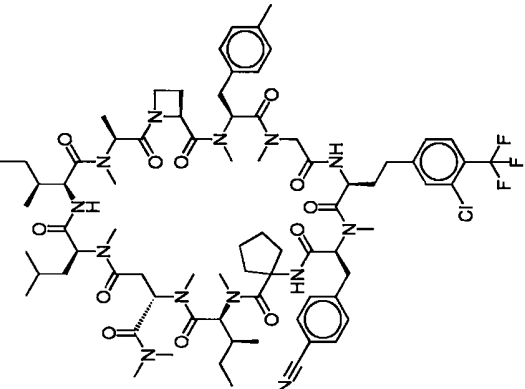
	
1914	1916
	
1913	1915

[5656]

	
1918	1920
	
1917	1919

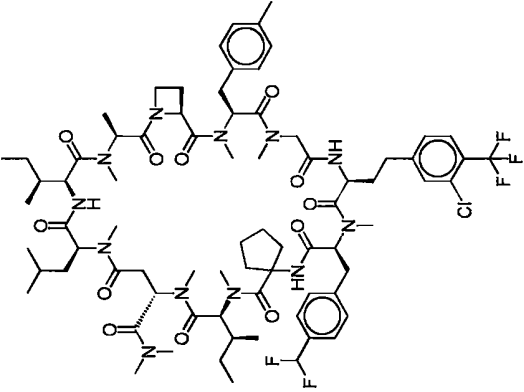
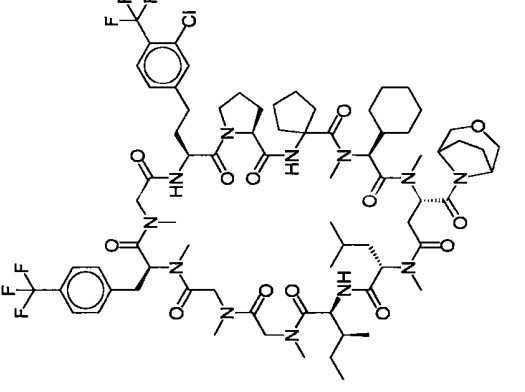
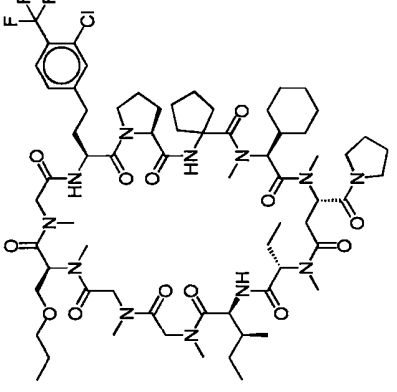
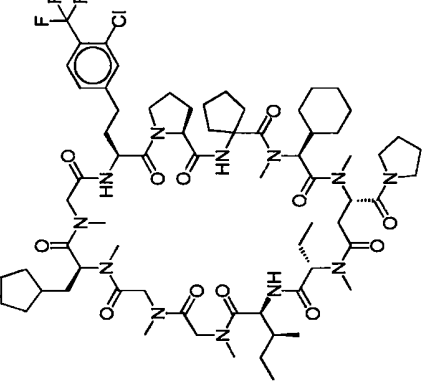
[5657]

	
1922	1924
	
1921	1923

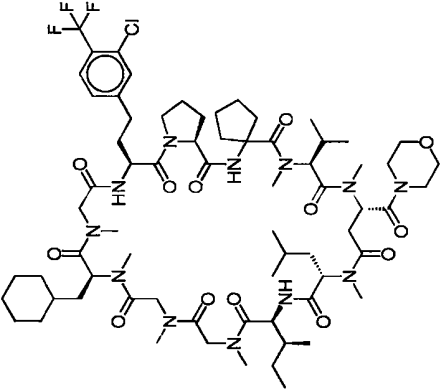
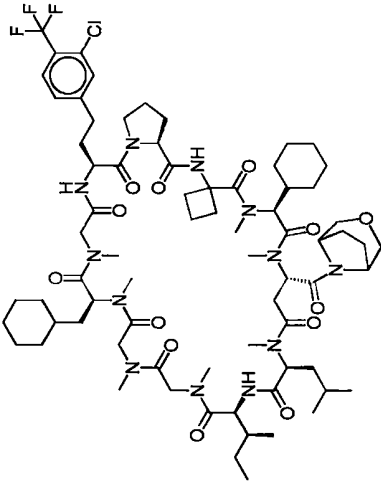
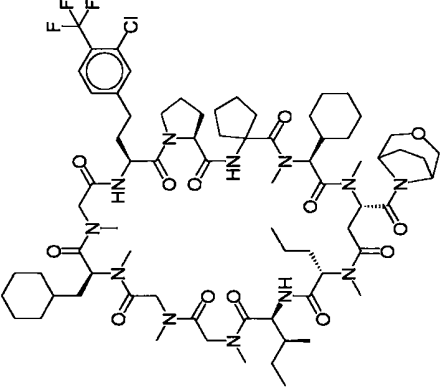
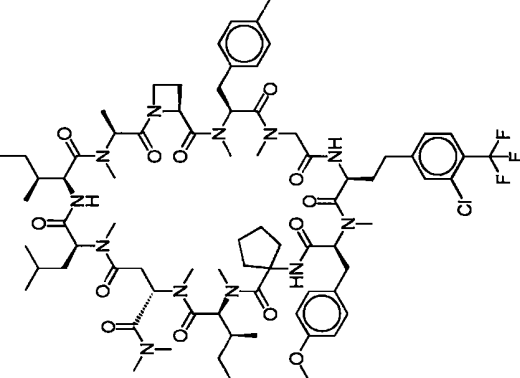
	
1926	1928
	
1925	1927

[5658]

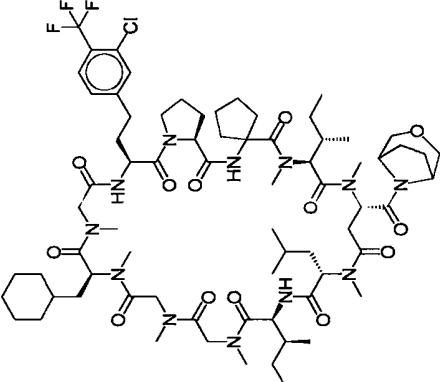
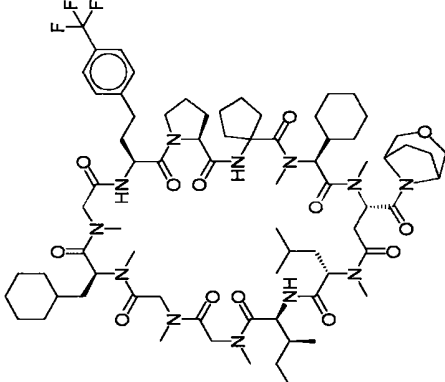
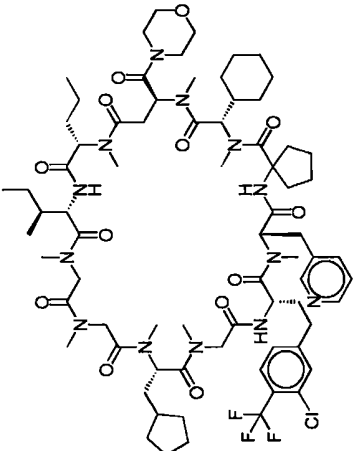
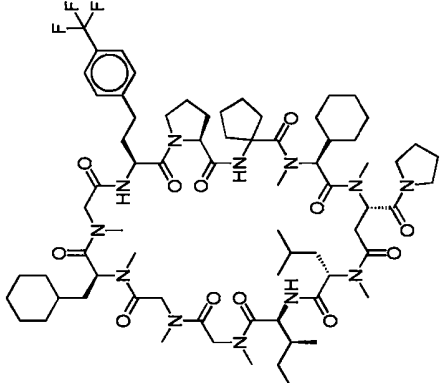
[5659]

	
1930	1932
	
1929	1931

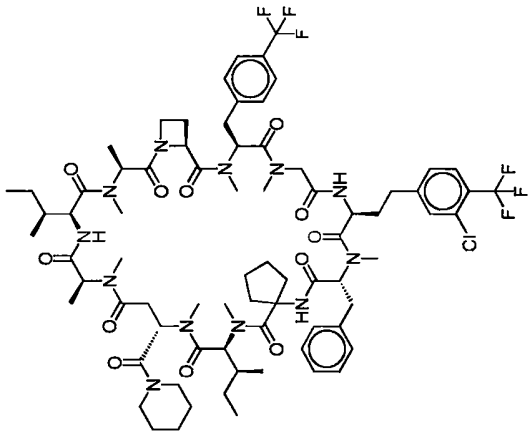
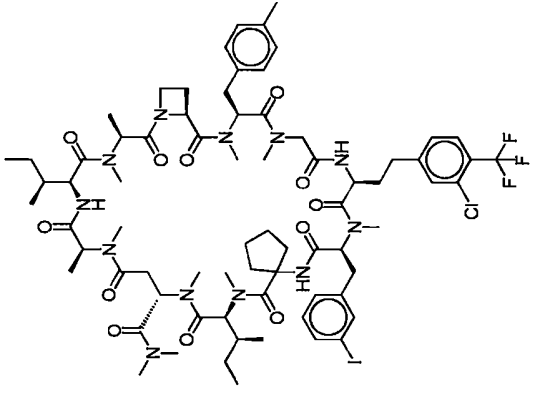
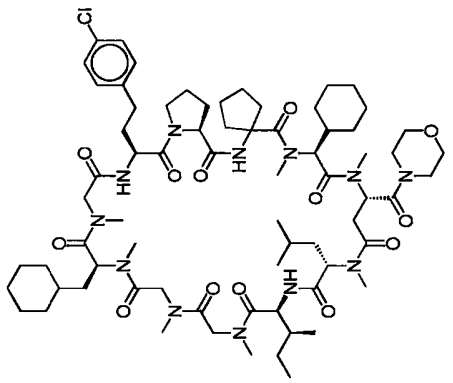
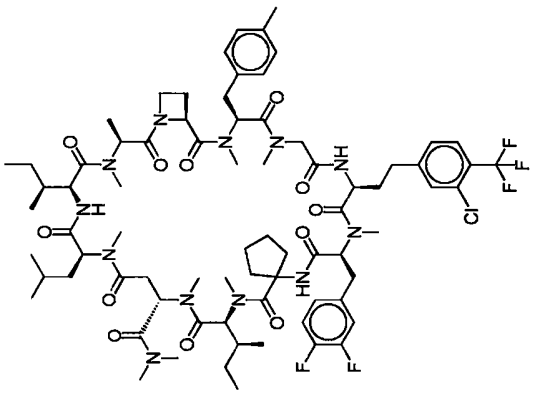
[5660]

	
1934	1936
	
1933	1935

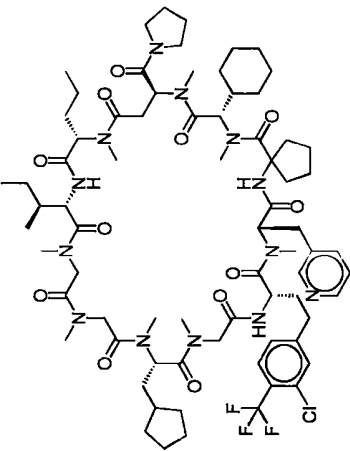
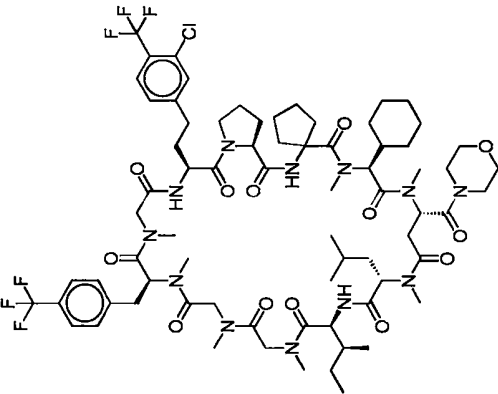
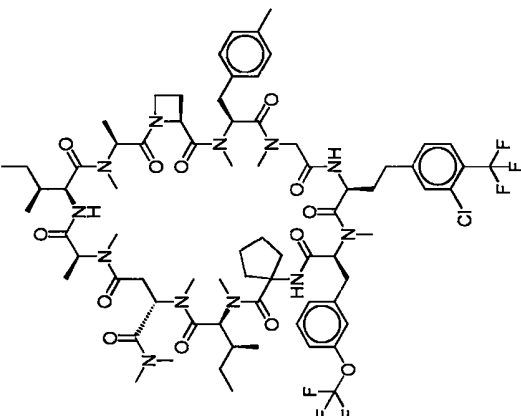
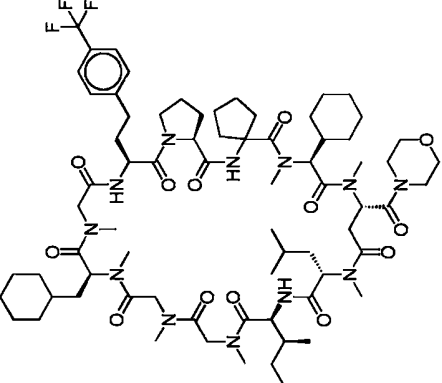
[5661]

	
1938	1940
	
1937	1939

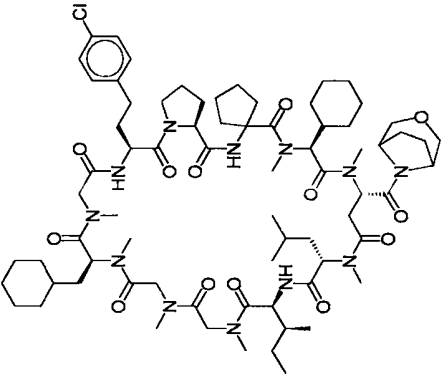
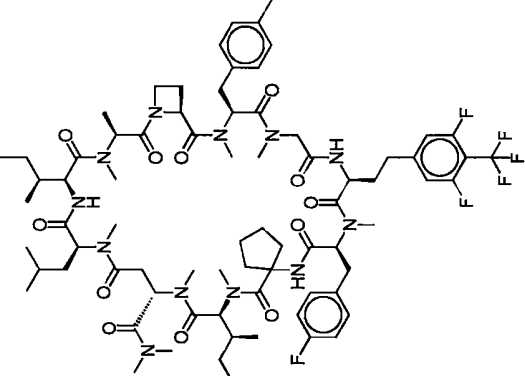
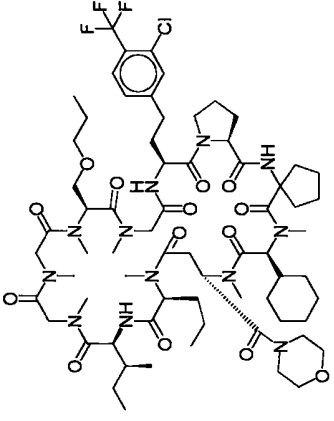
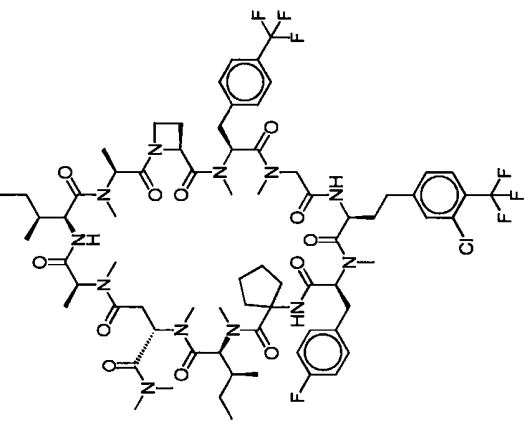
[5662]

	
1942	1944
	
1941	1943

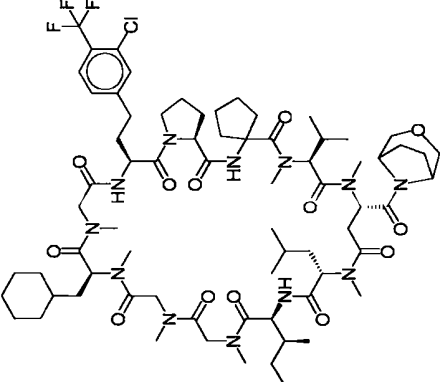
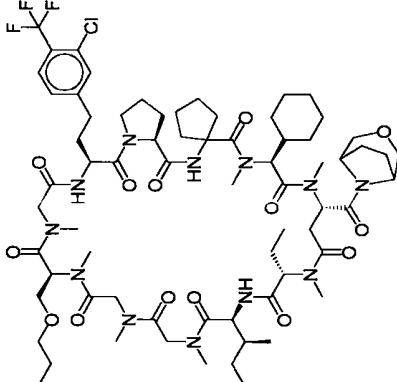
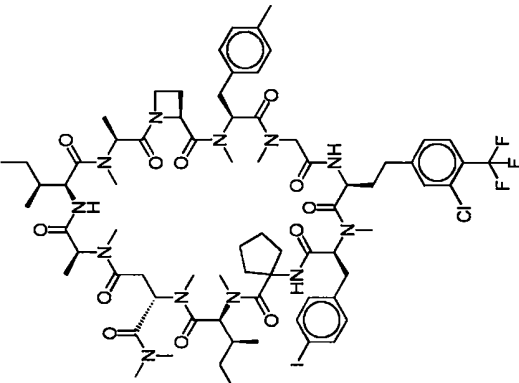
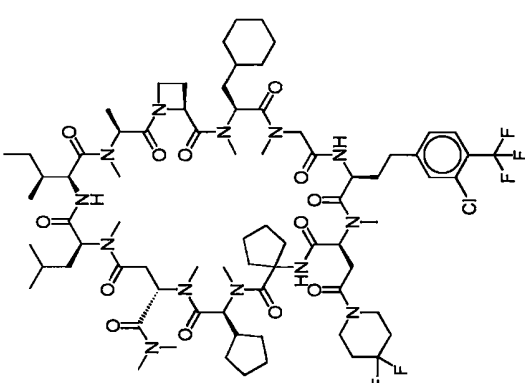
[5663]

	
1946	1948
	
1945	1947

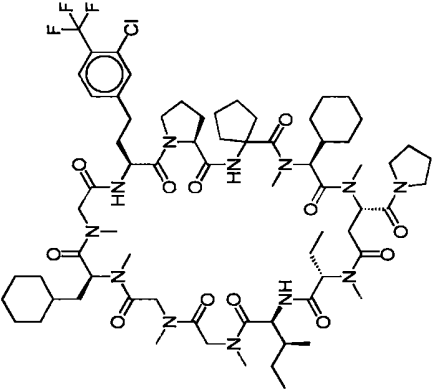
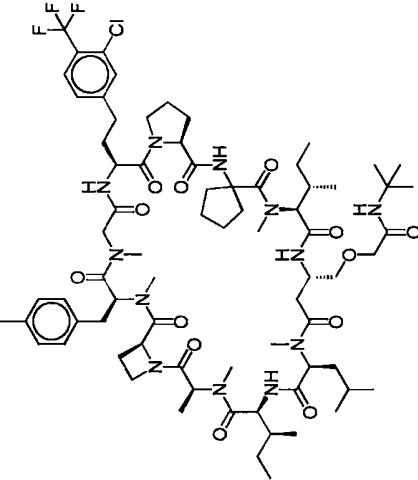
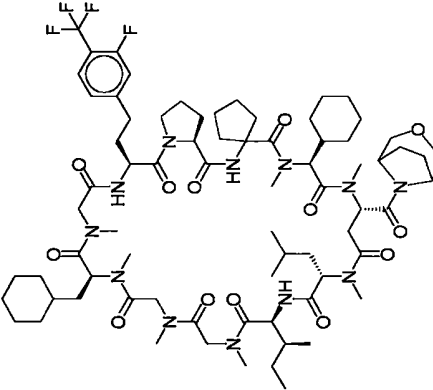
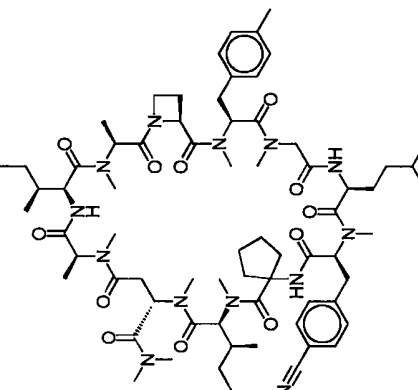
[5664]

	
1950	1952
	
1949	1951

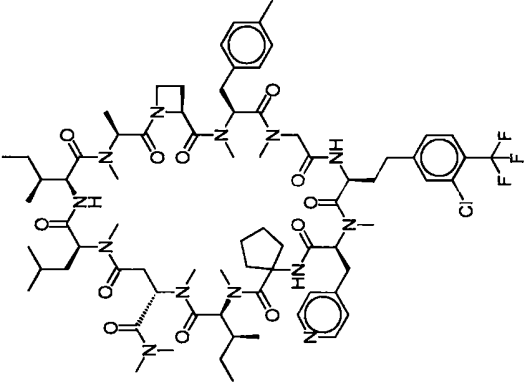
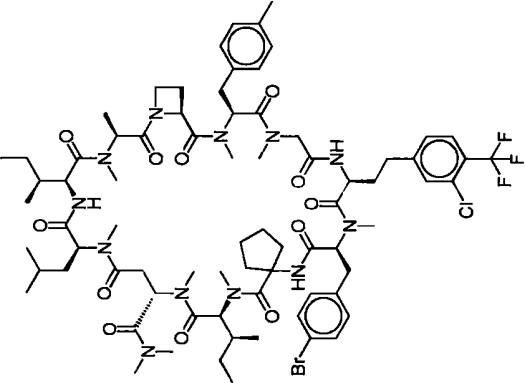
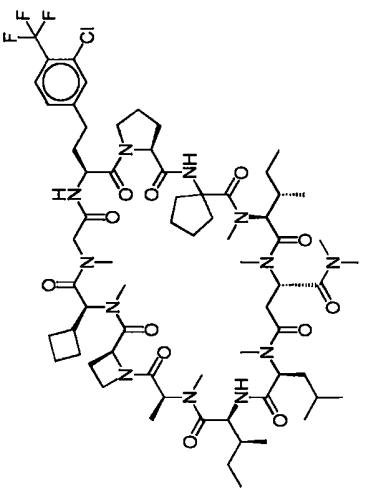
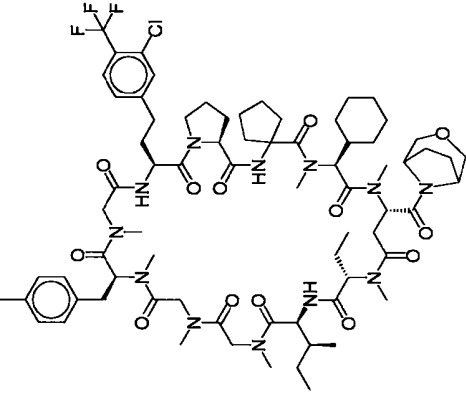
[5665]

	
1954	1956
	
1953	1955

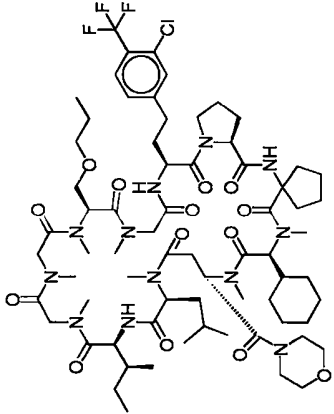
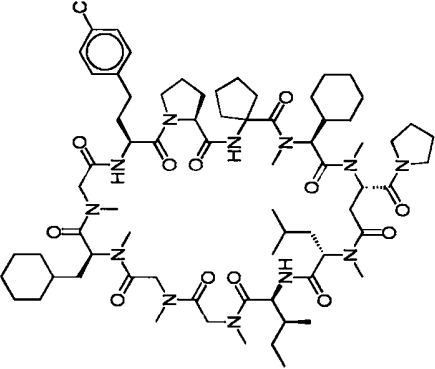
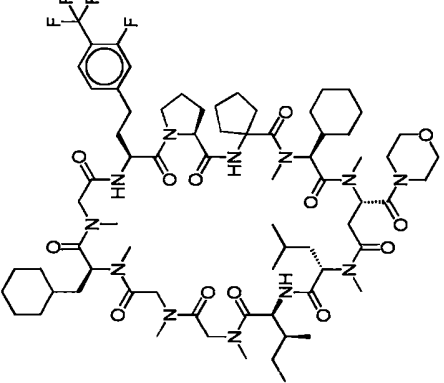
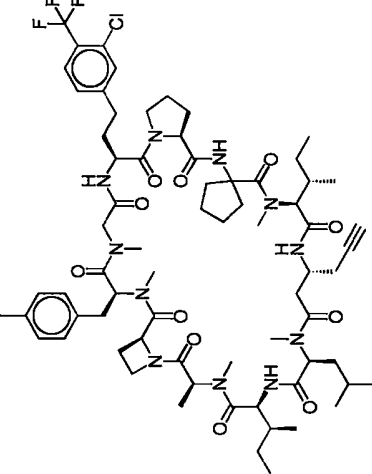
[5666]

	
1958	1960
	
1957	1959

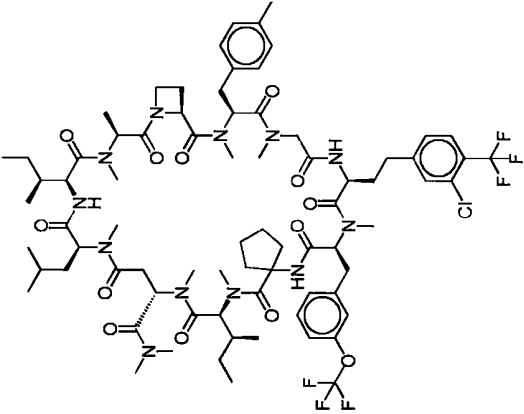
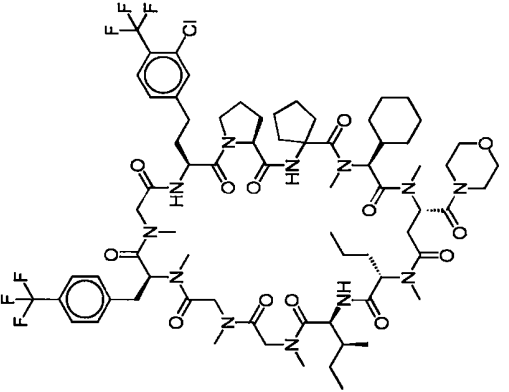
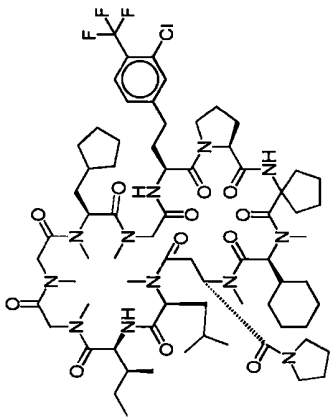
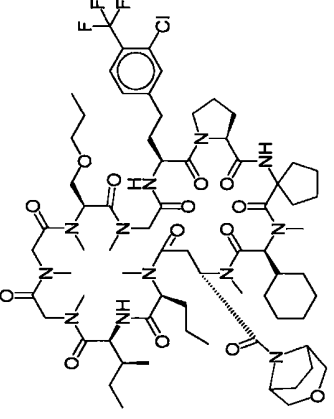
[5667]

	
1962	1964
	
1961	1963

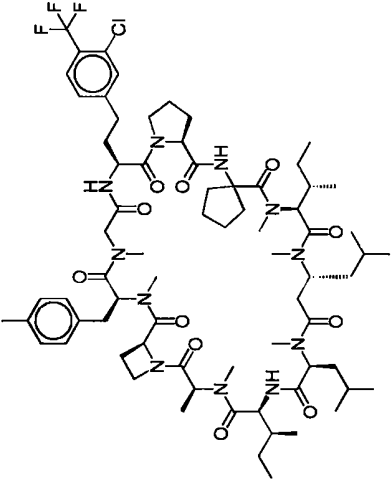
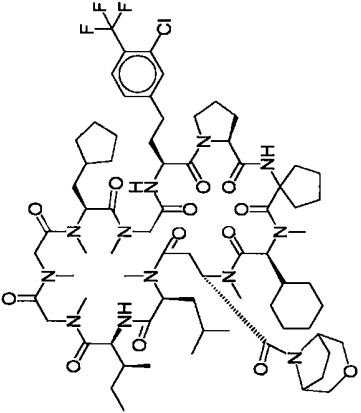
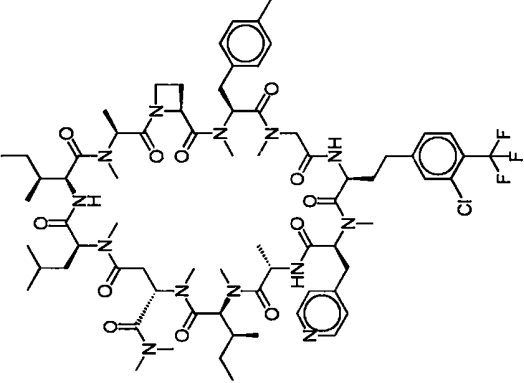
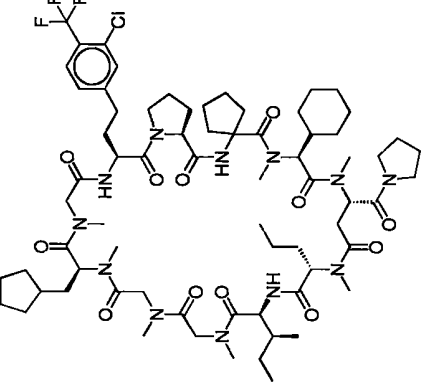
[5668]

	
1966	1968
	
1965	1967

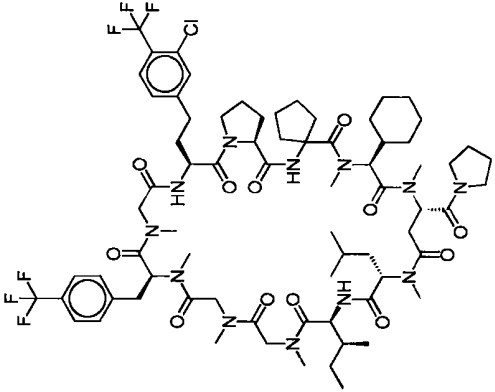
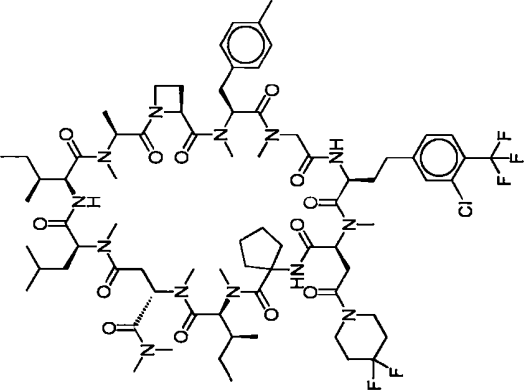
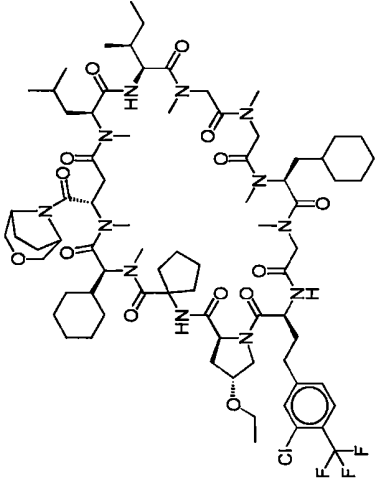
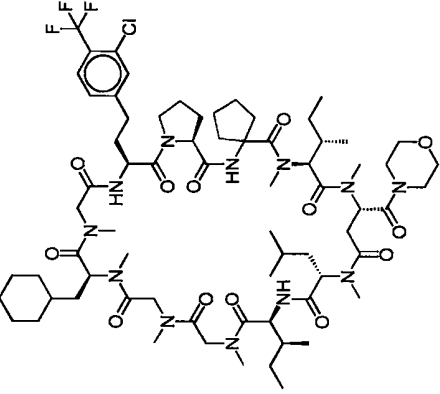
[5669]

	
1970	1972
	
1969	1971

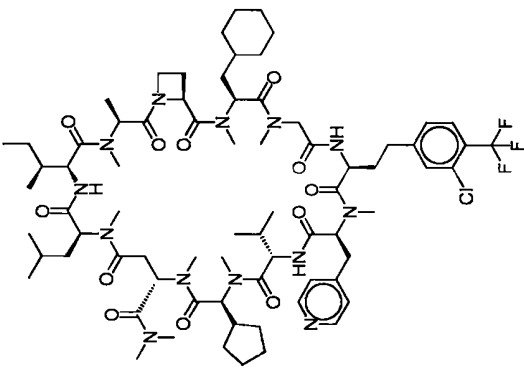
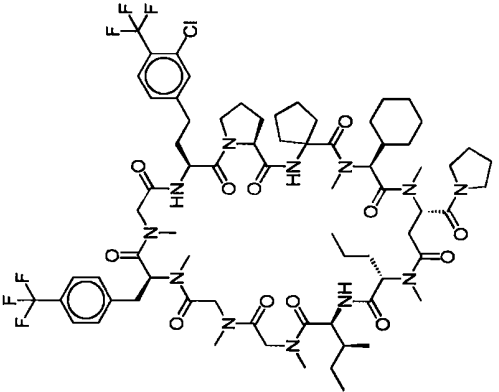
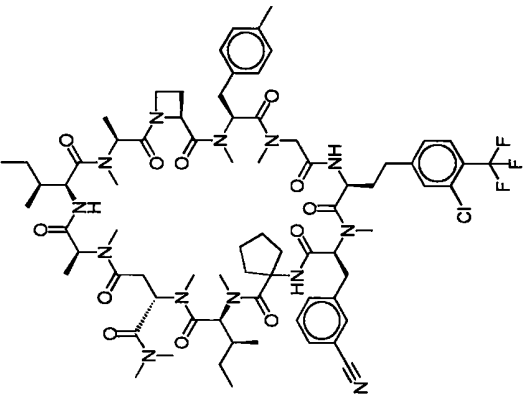
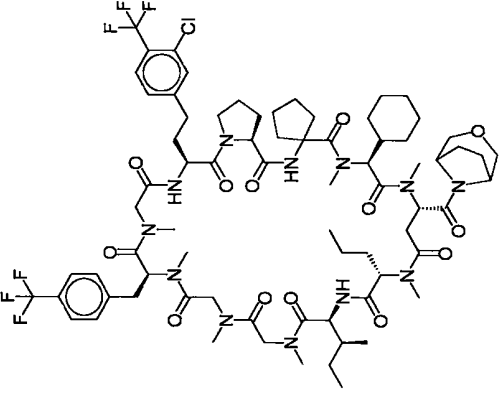
[5670]

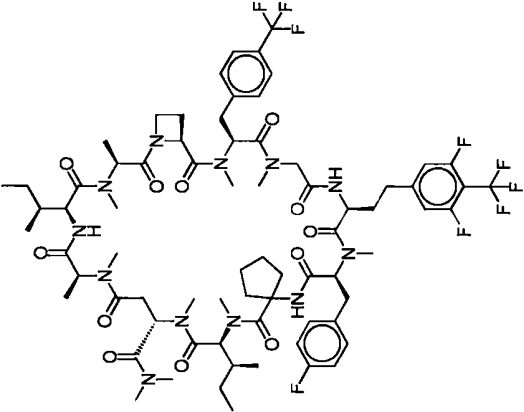
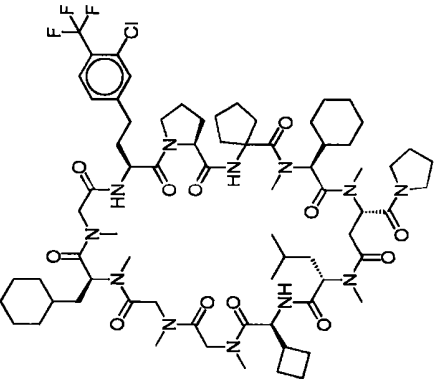
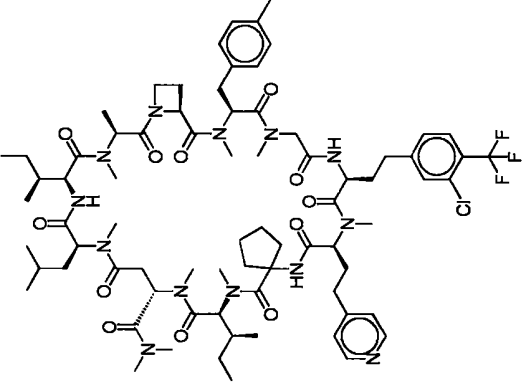
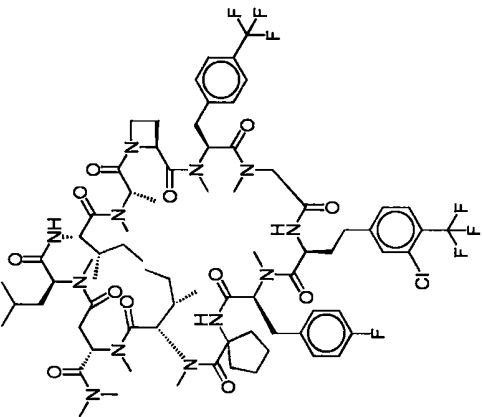
	
1974	1976
	
1973	1975

[5671]

	
1978	1980
	
1977	1979

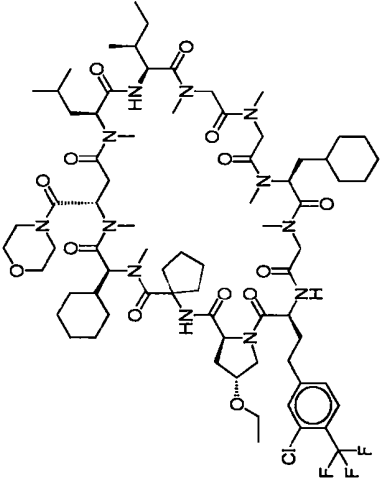
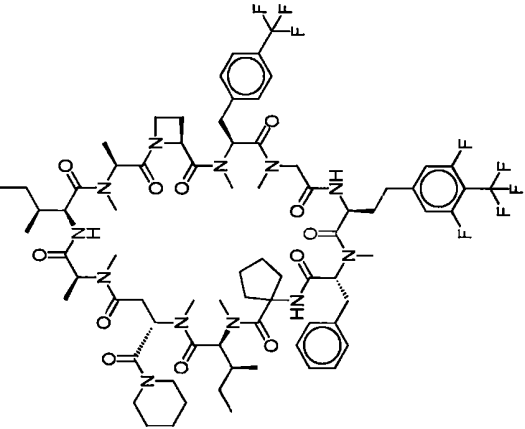
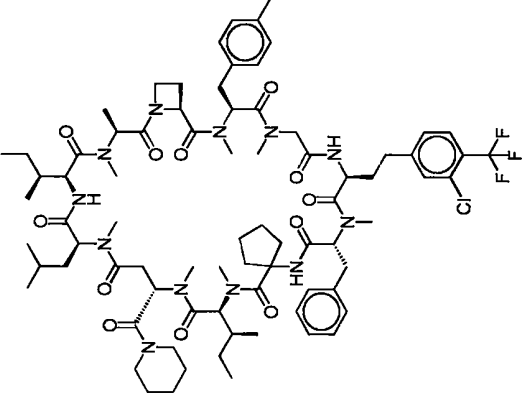
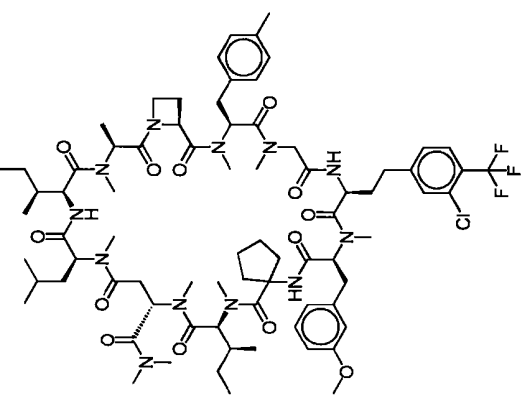
[5672]

	
1982	1984
	
1981	1983

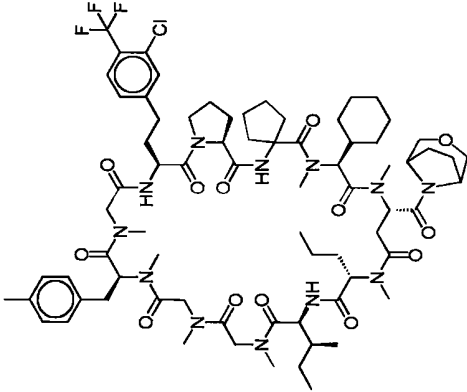
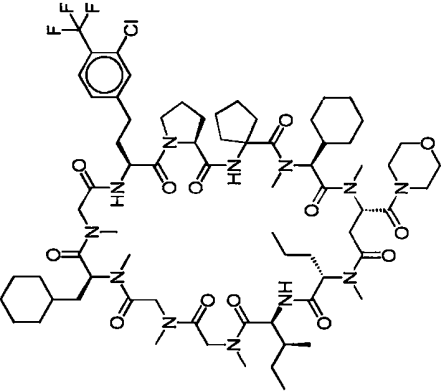
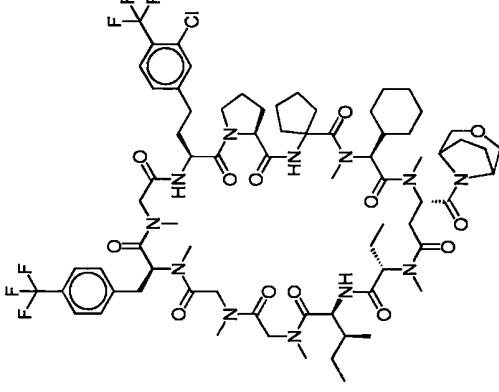
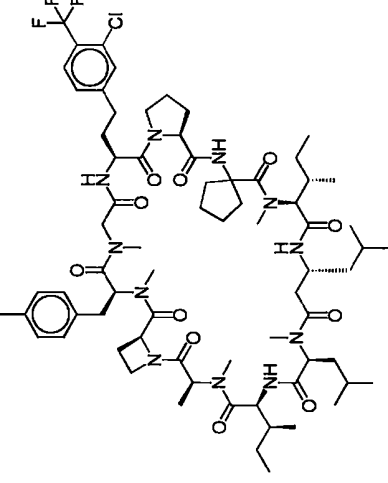
	
1986	1988
	
1985	1987

[5673]

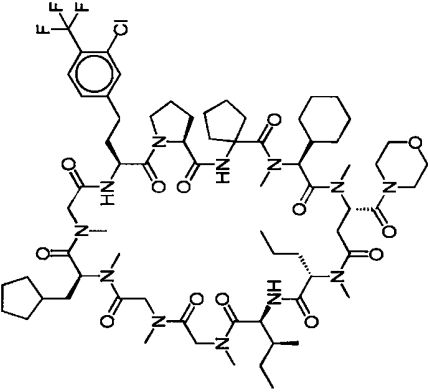
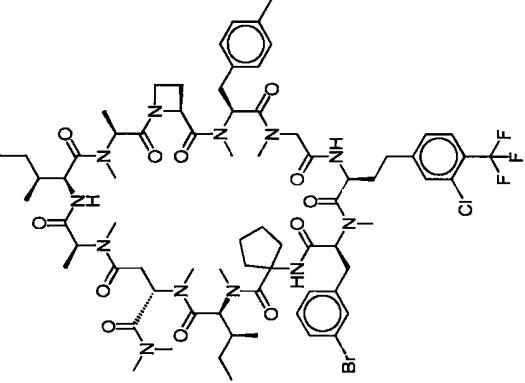
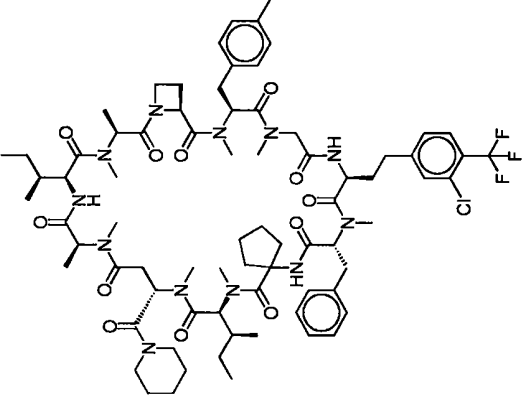
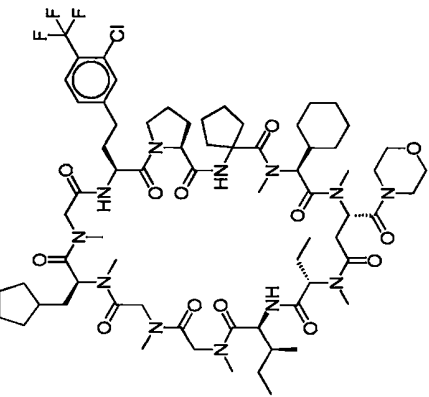
[5674]

	
1990	1992
	
1989	1991

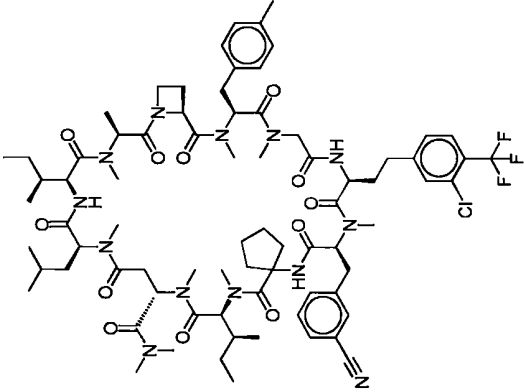
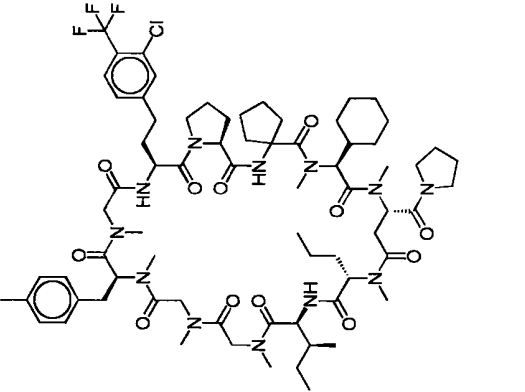
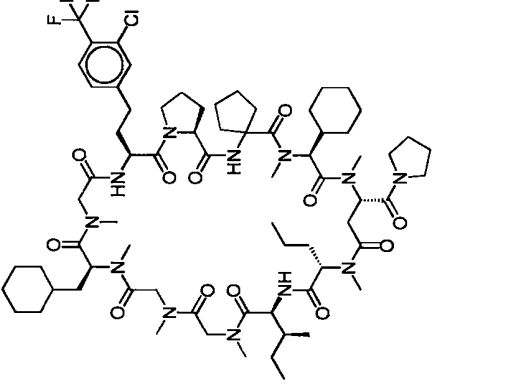
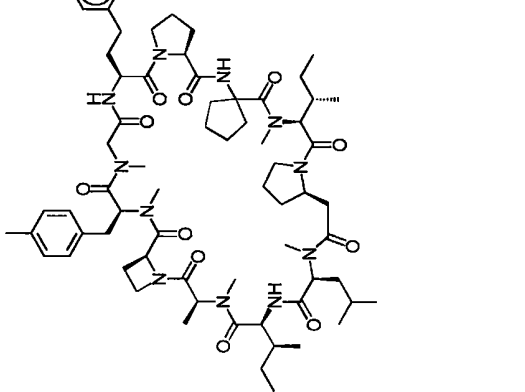
[5675]

	
1994	1996
	
1993	1995

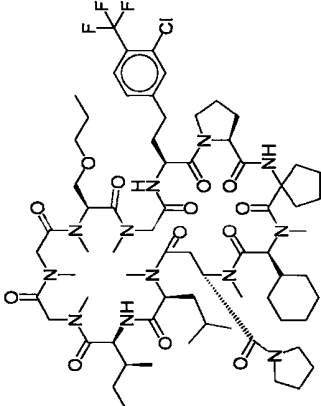
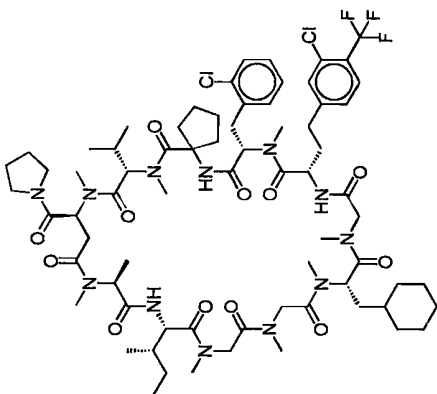
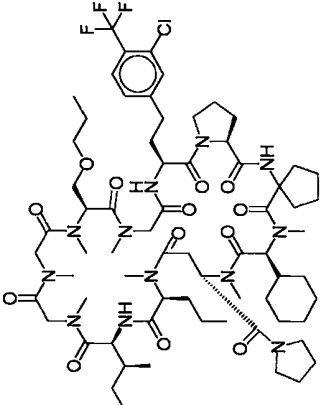
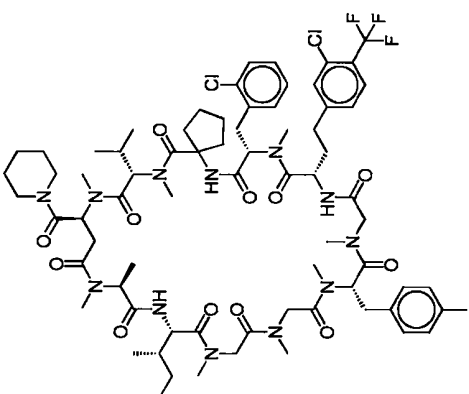
[5676]

	
1998	2000
	
1997	1999

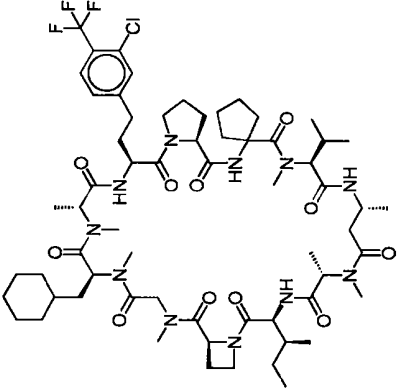
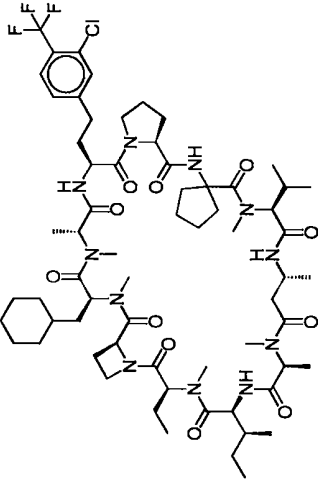
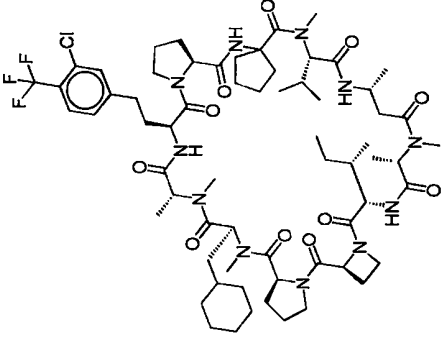
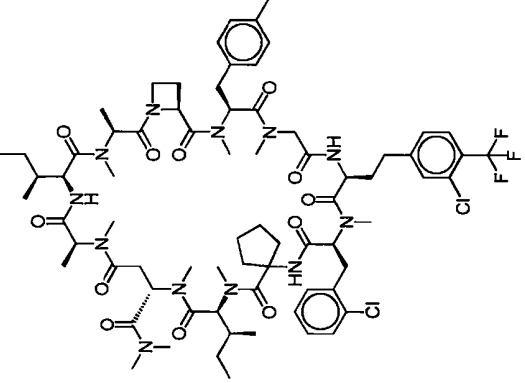
[5677]

	
2002	2004
	
2001	2003

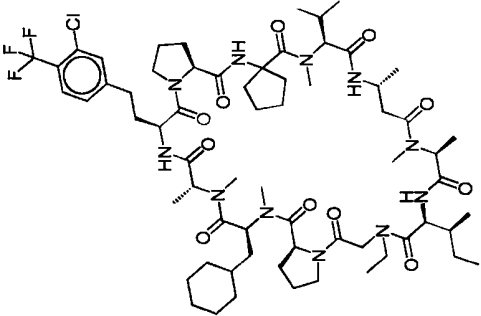
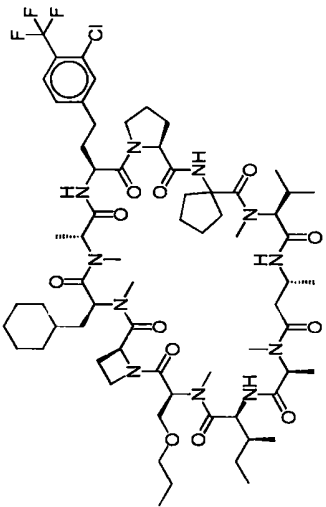
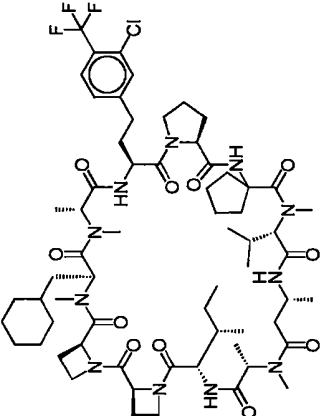
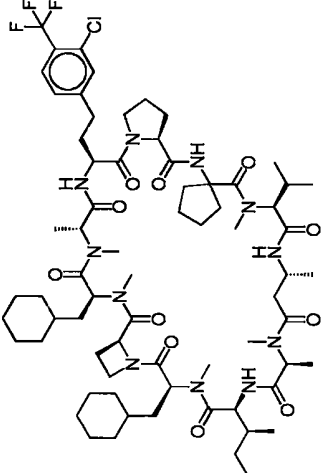
[5678]

	
2006	2008
	
2005	2007

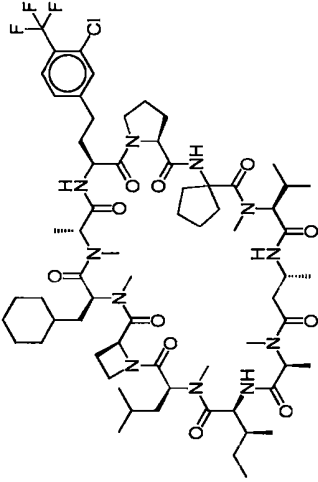
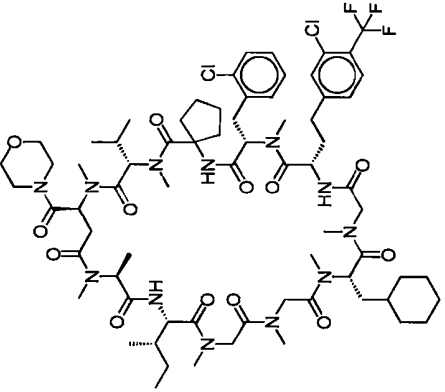
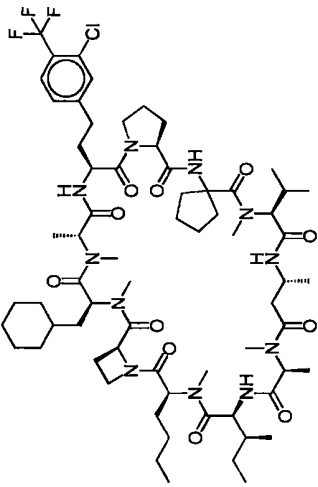
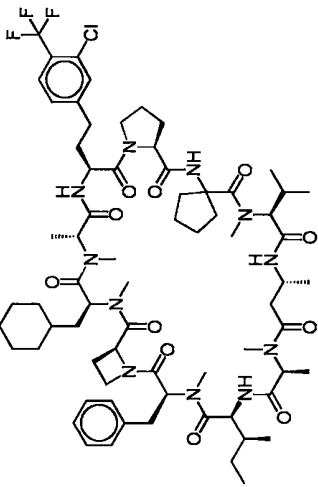
[5679]

	
2010	2012
	
2009	2011

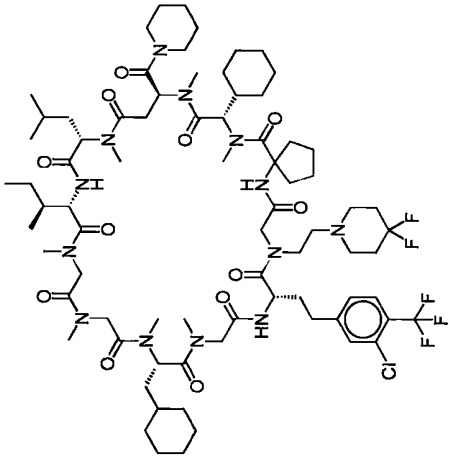
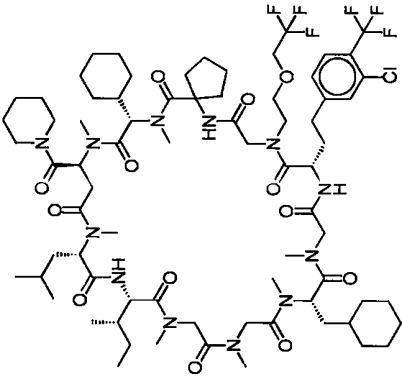
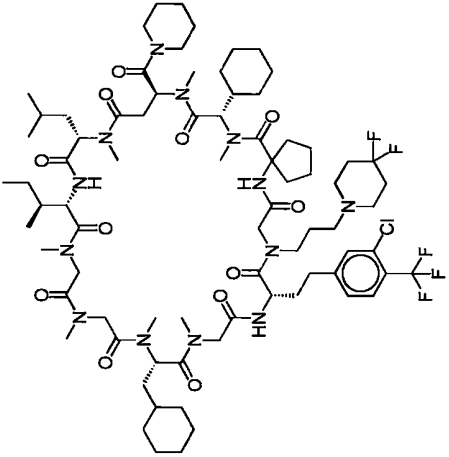
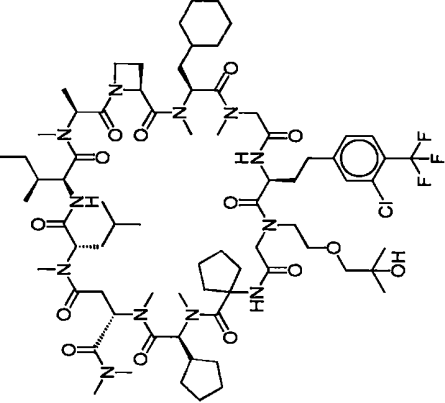
[5680]

	
2014	2016
	
2013	2015

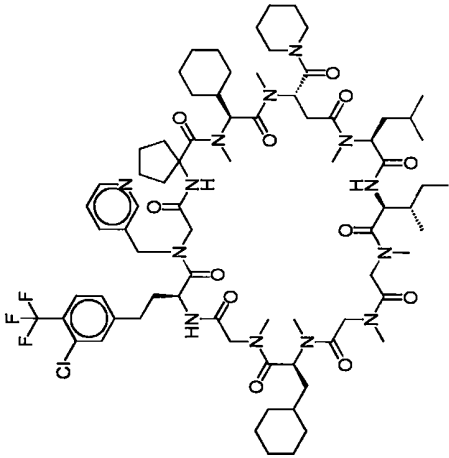
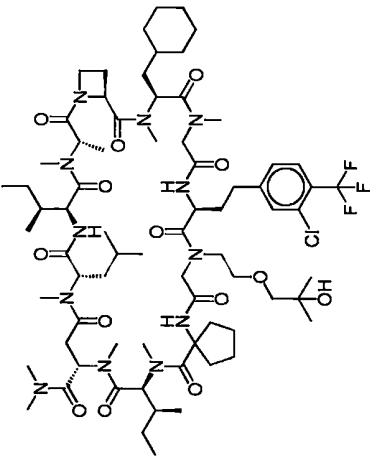
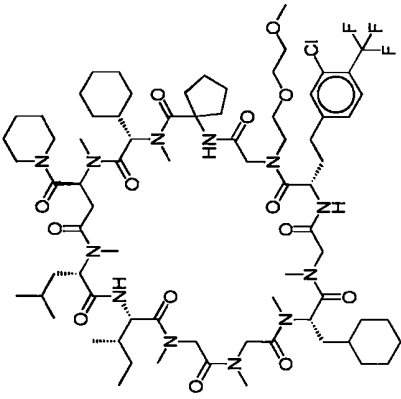
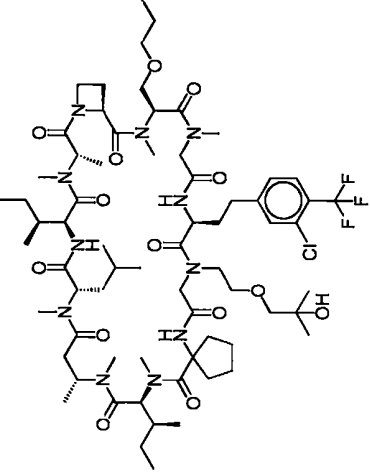
[5681]

	
2018	2020
	
2017	2019

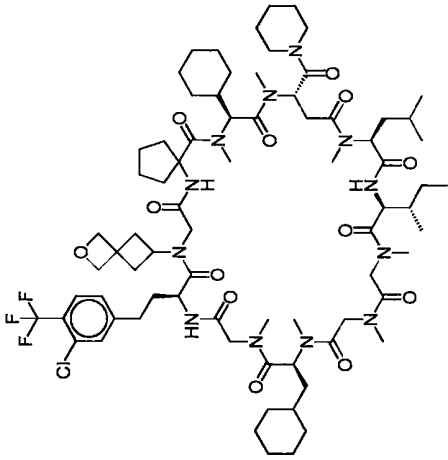
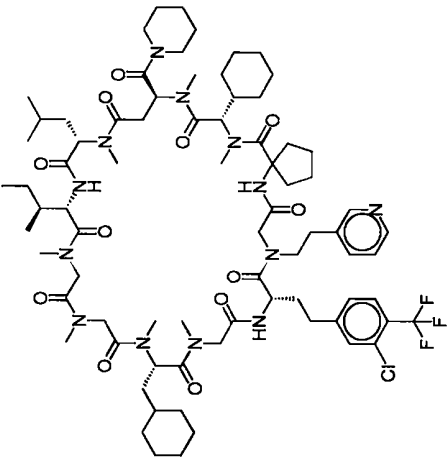
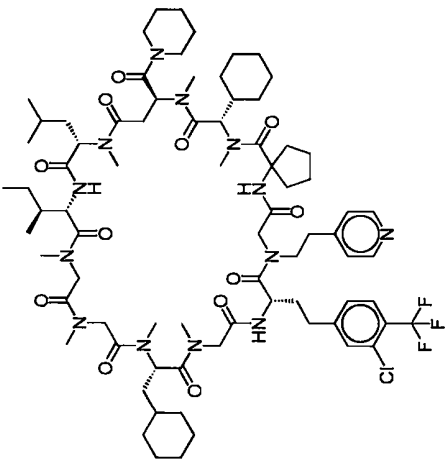
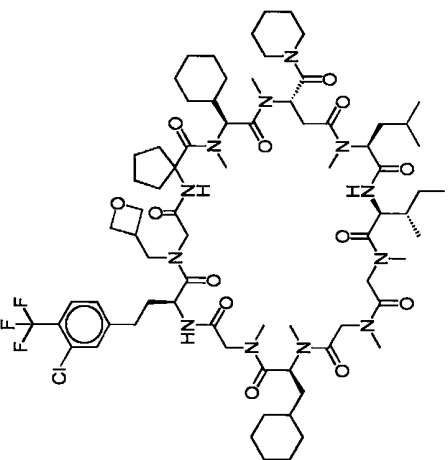
[5682]

	
2022	2024
	
2021	2023

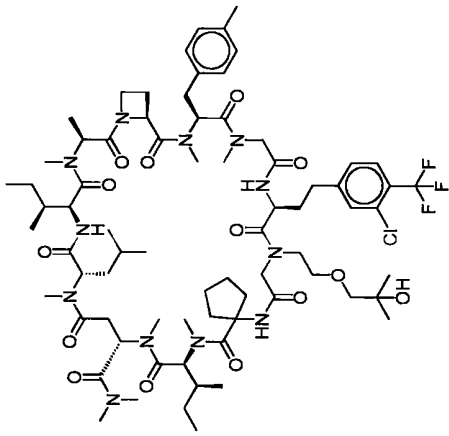
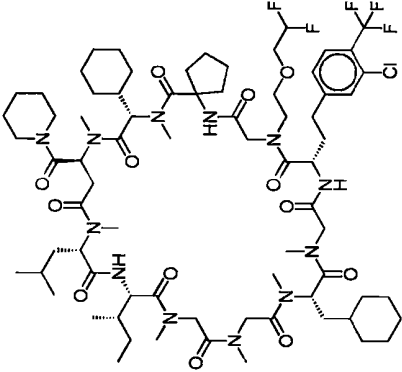
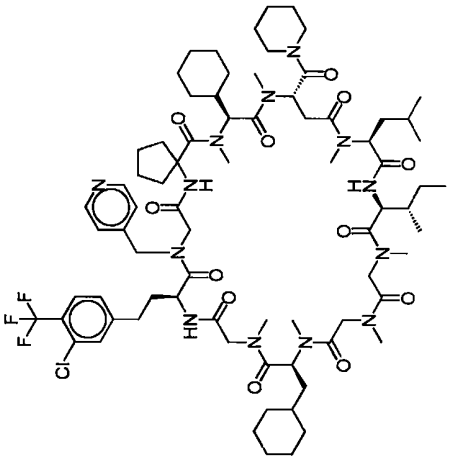
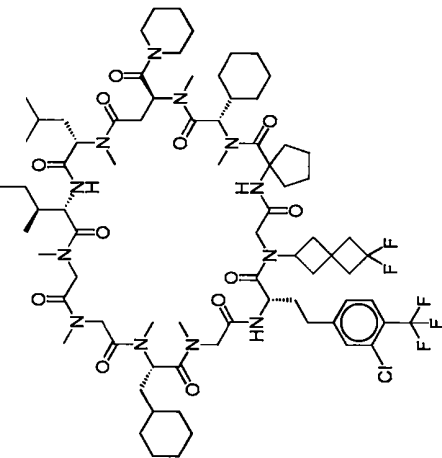
[5683]

	
2026	2028
	
2025	2027

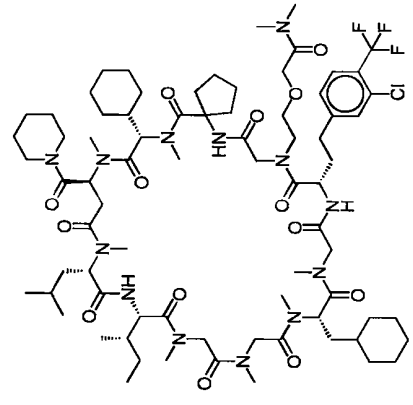
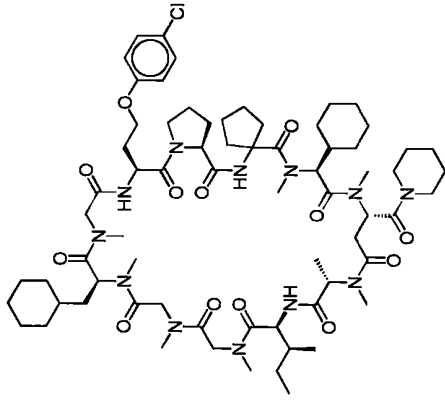
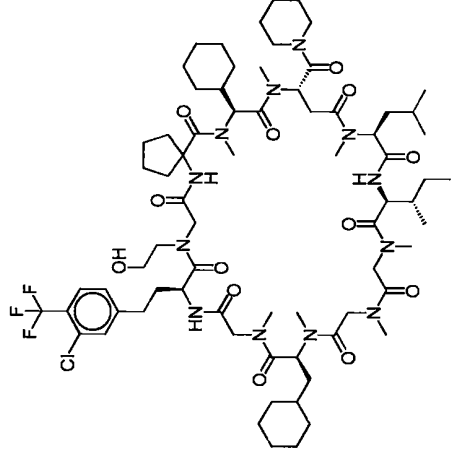
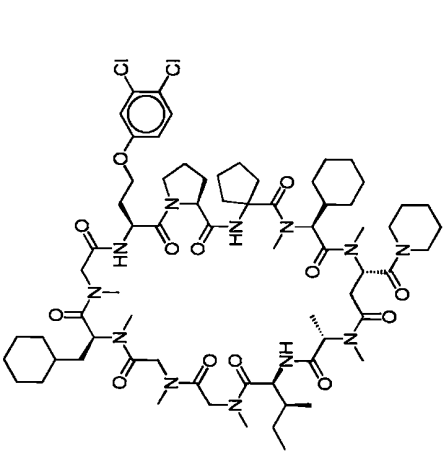
[5684]

	
2030	2032
	
2029	2031

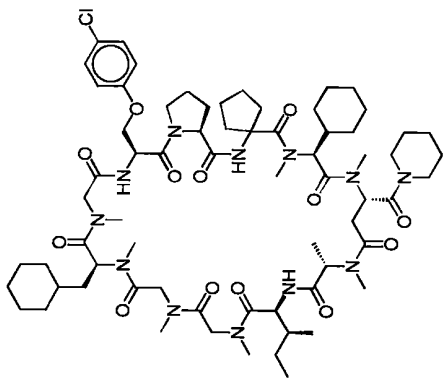
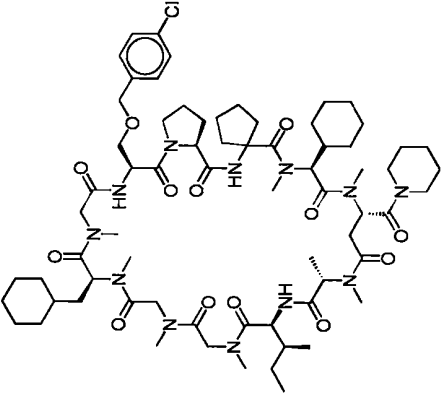
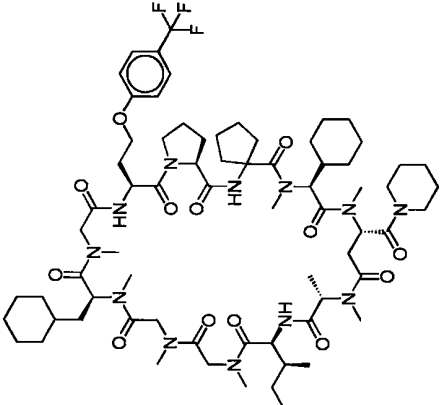
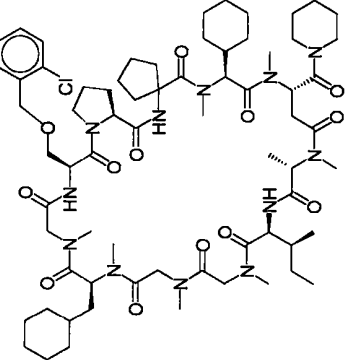
[5685]

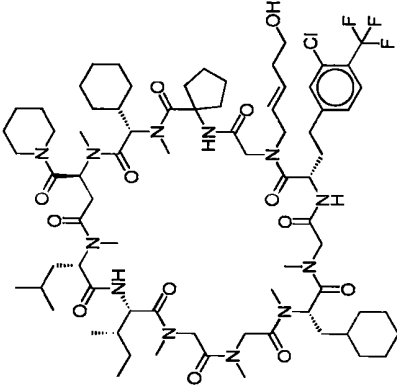
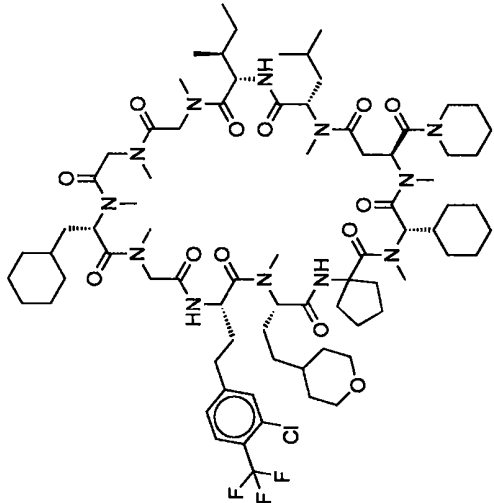
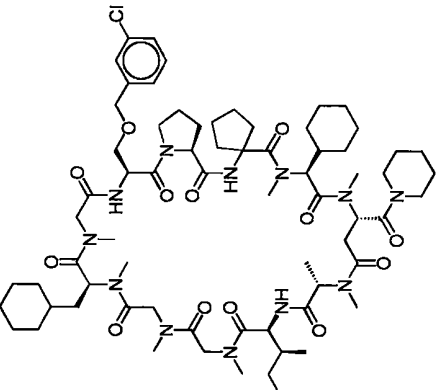
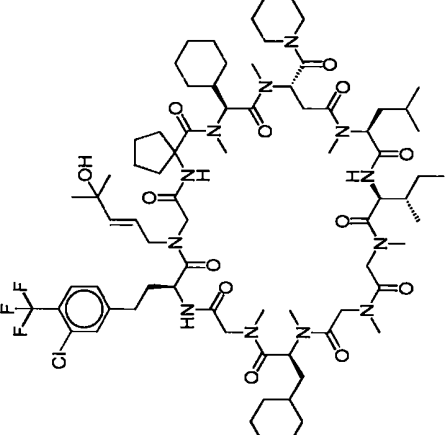
	
2034	2036
	
2033	2035

[5686]

	
2038	2040
	
2037	2039

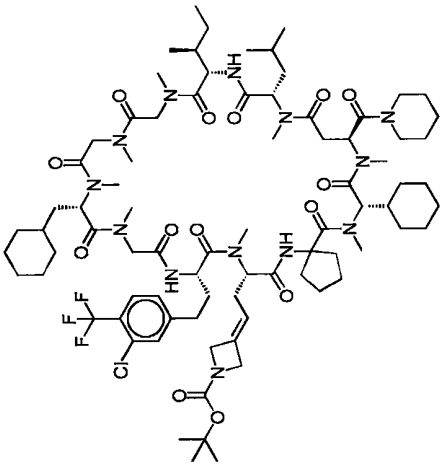
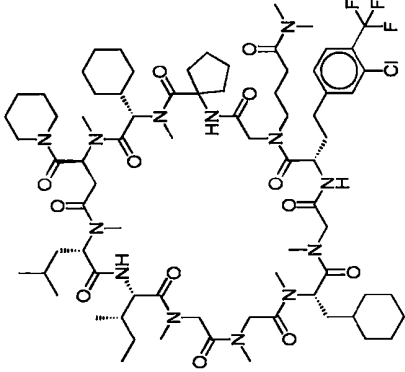
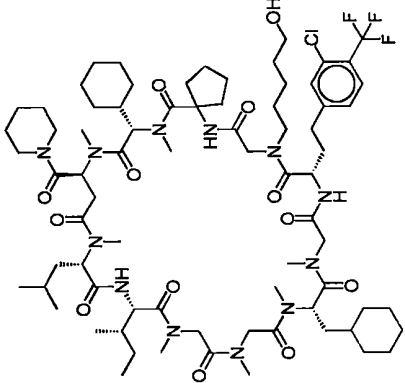
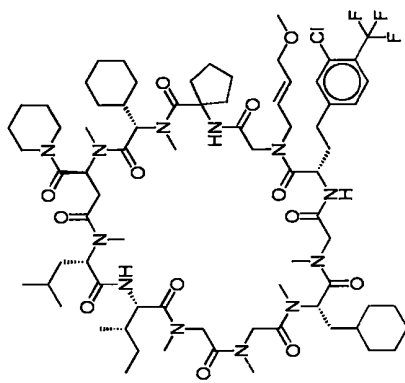
[5687]

	
2042	2044
	
2041	2043

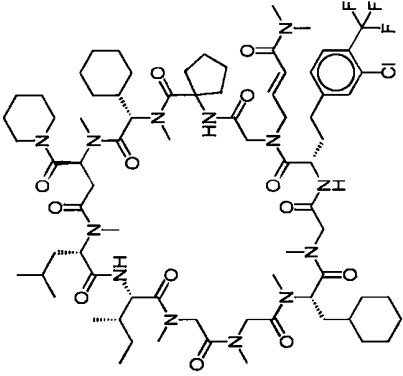
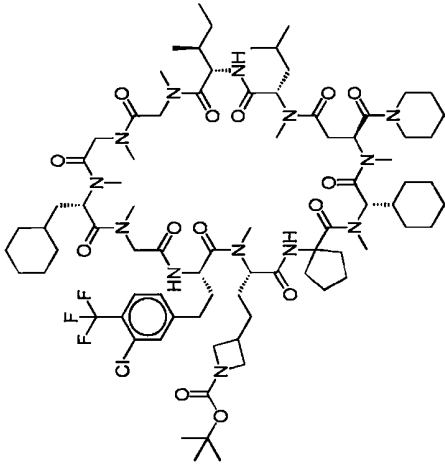
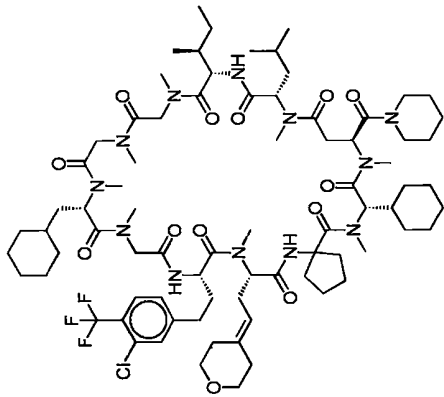
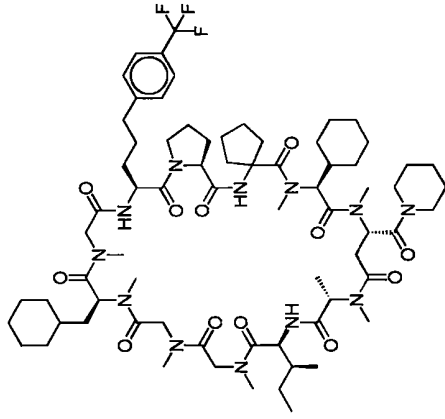
	
2046	2048
	
2045	2047

[5688]

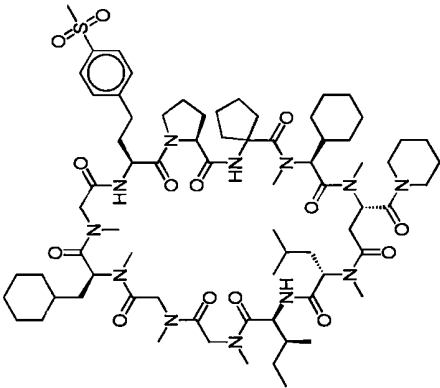
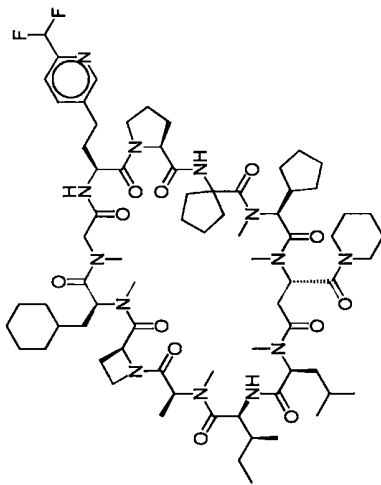
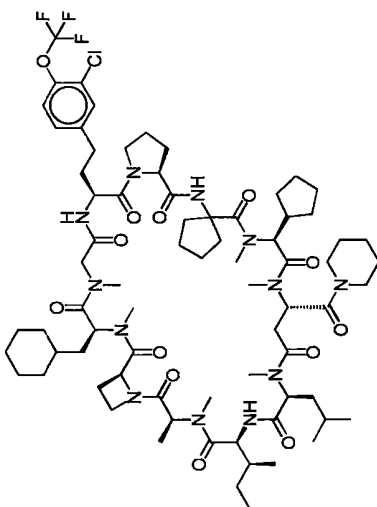
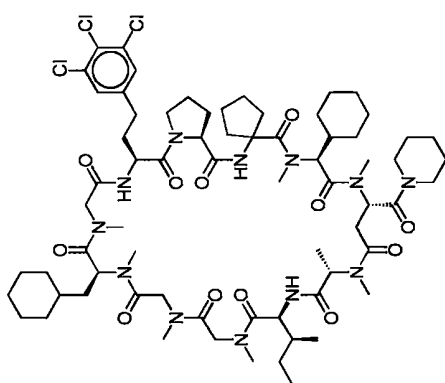
[5689]

	
2050	2052
	
2049	2051

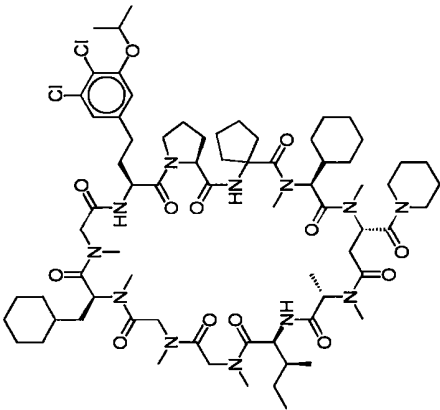
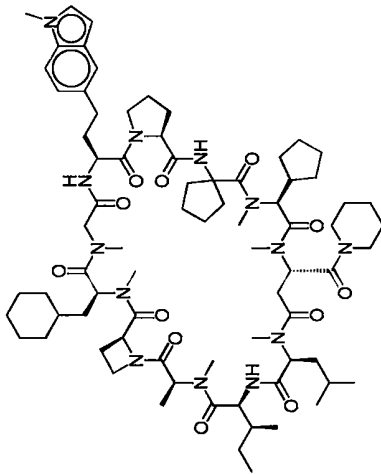
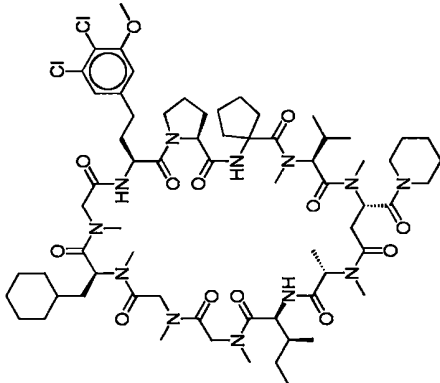
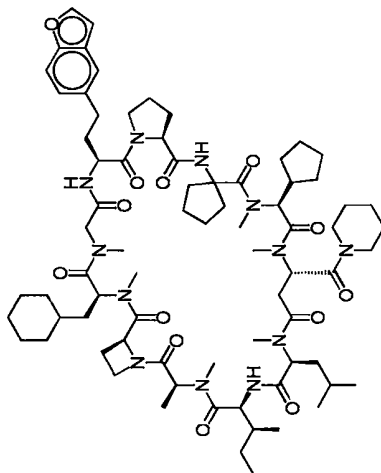
[5690]

	
2054	2056
	
2053	2055

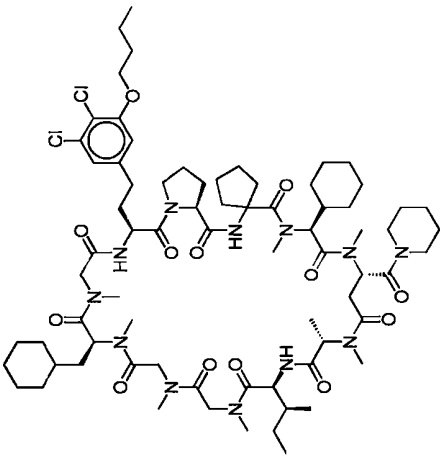
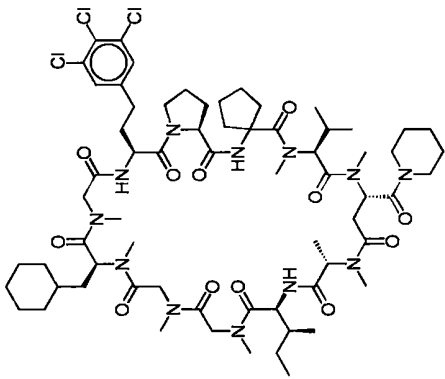
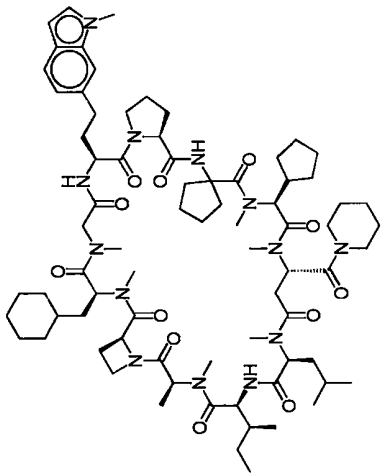
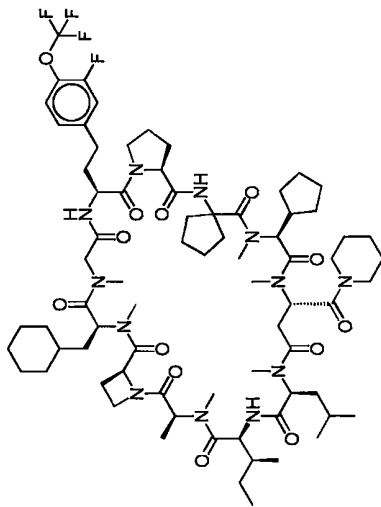
[5691]

	
2058	2060
	
2057	2059

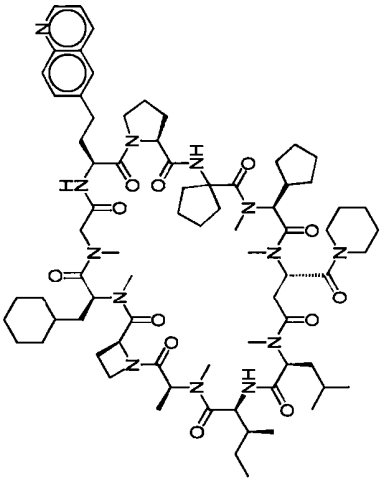
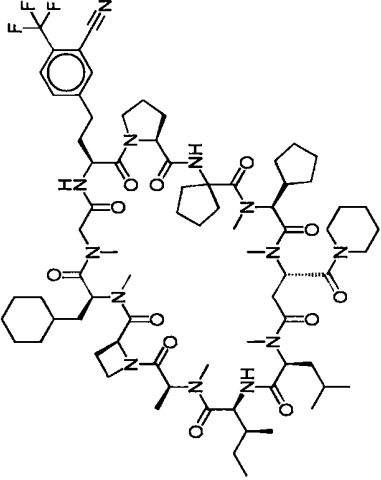
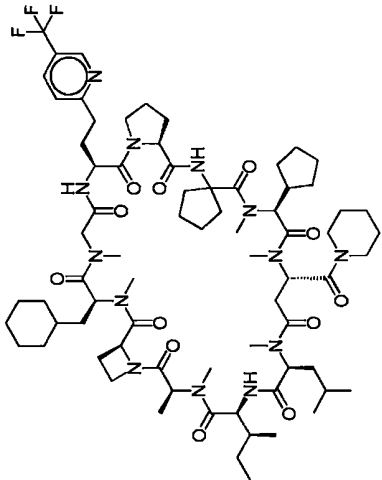
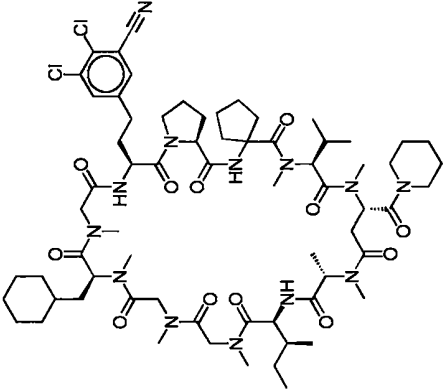
[5692]

	
2062	2064
	
2061	2063

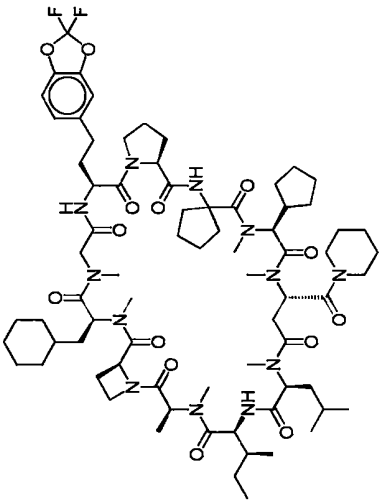
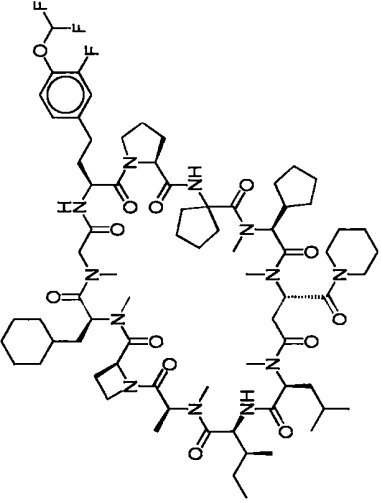
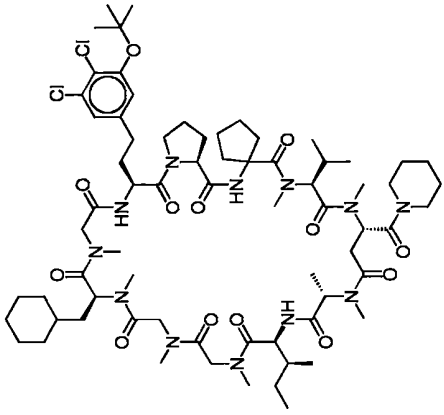
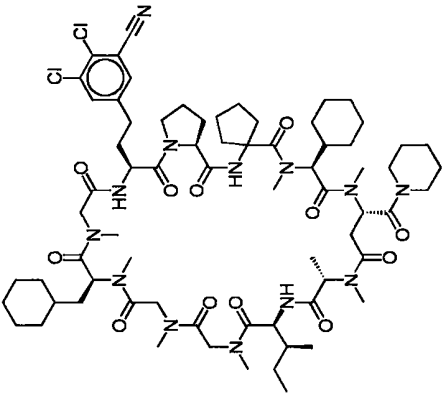
[5693]

	
2066	2068
	
2065	2067

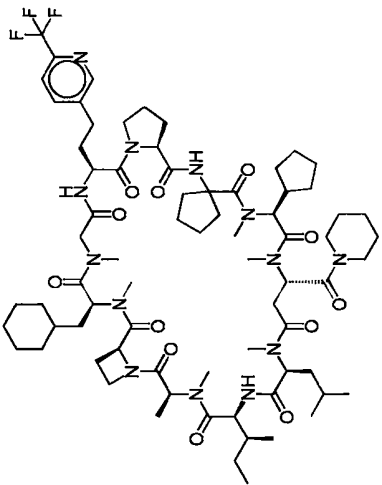
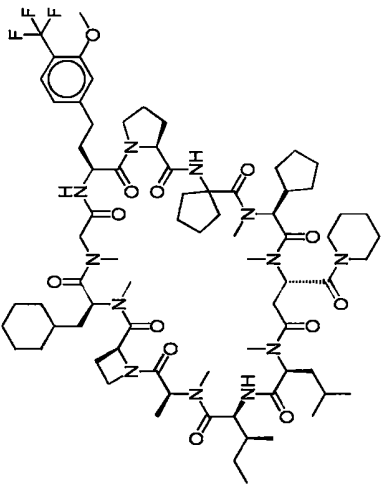
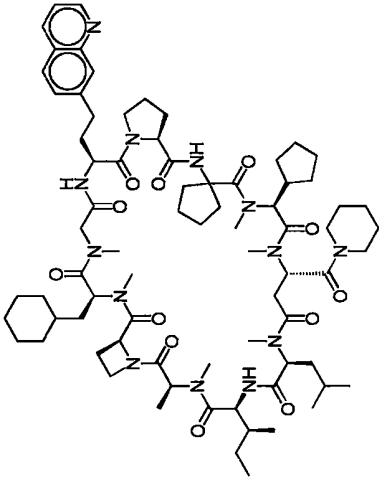
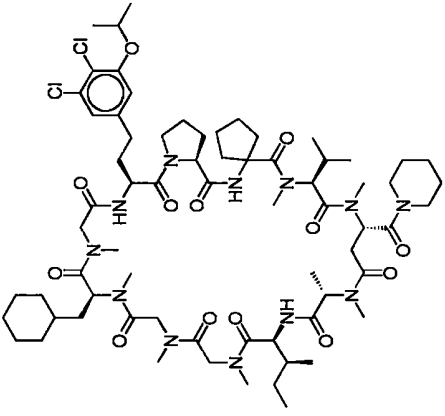
[5694]

	
2070	2072
	
2069	2071

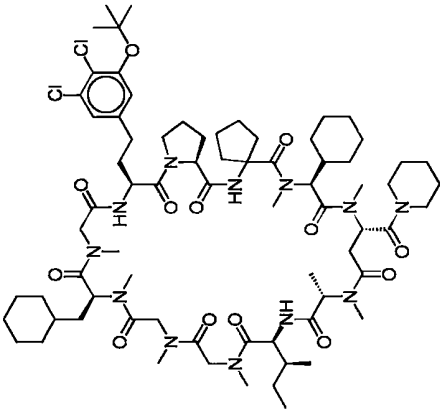
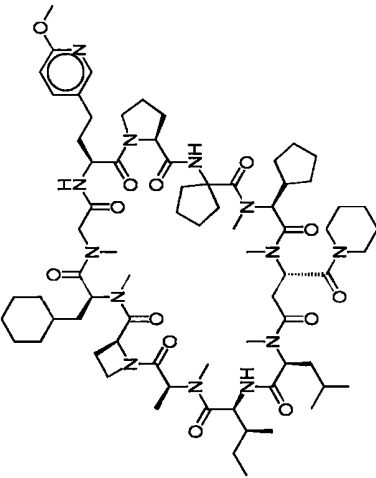
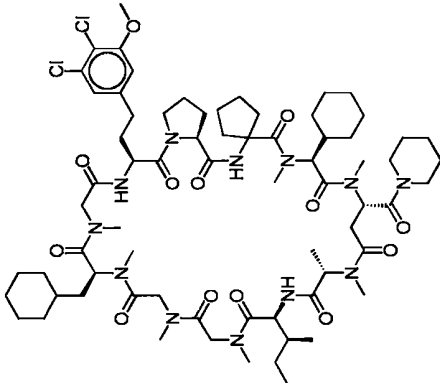
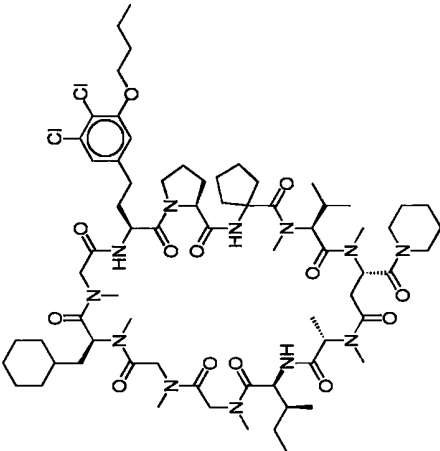
[5695]

	
2074	2076
	
2073	2075

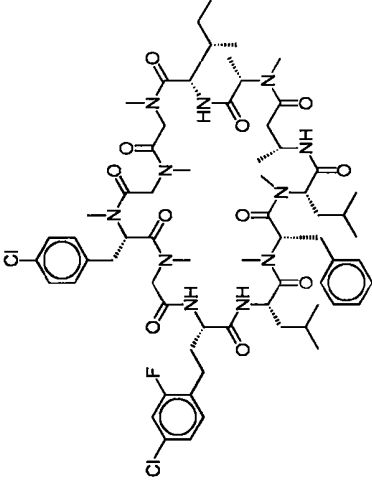
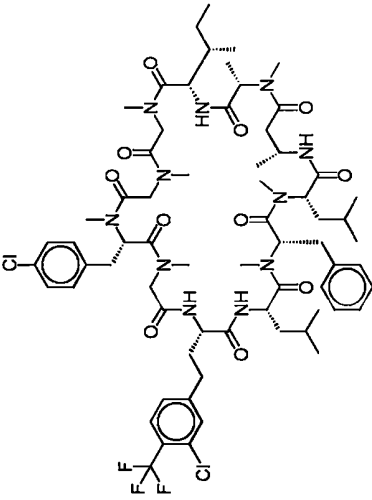
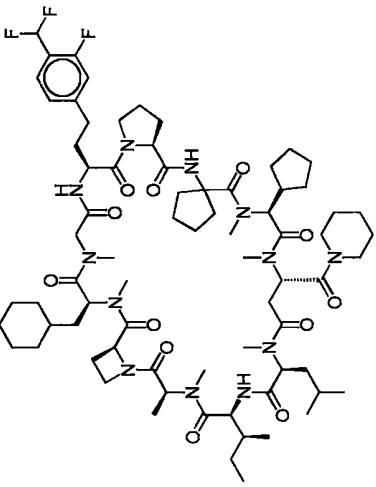
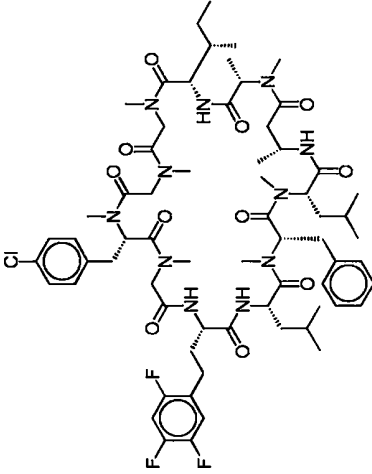
[5696]

	
2078	2080
	
2077	2079

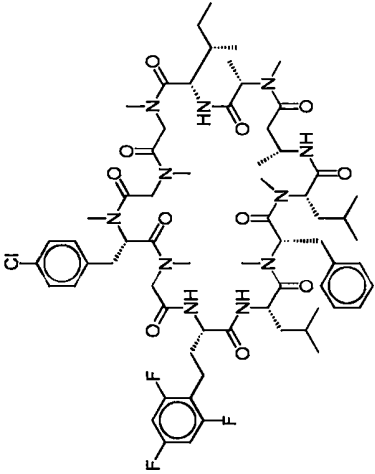
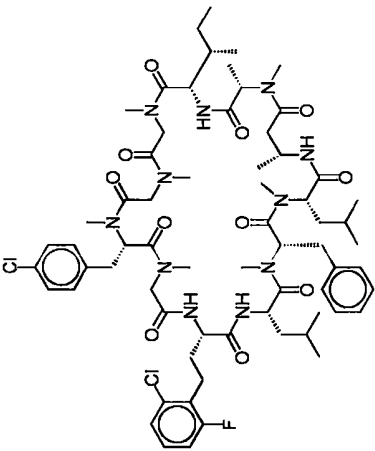
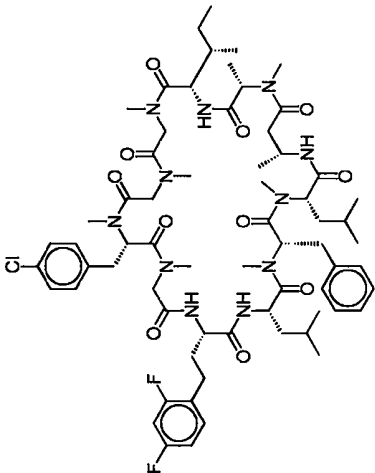
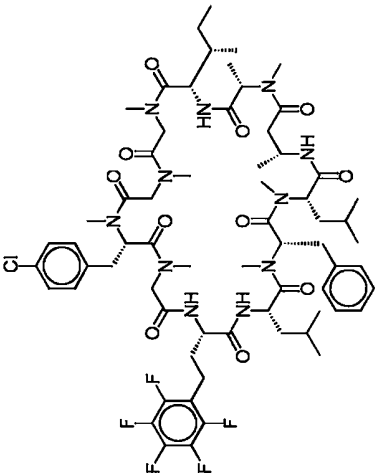
[5697]

	
2082	2084
	
2081	2083

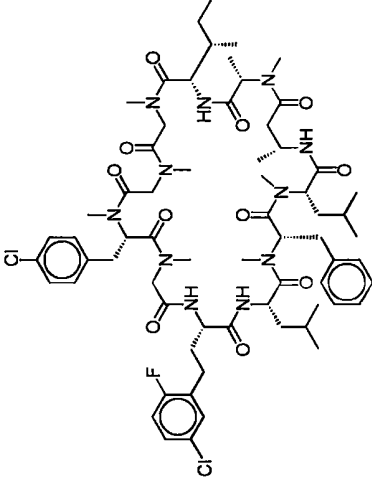
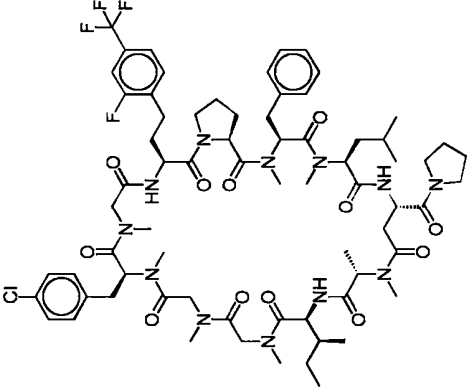
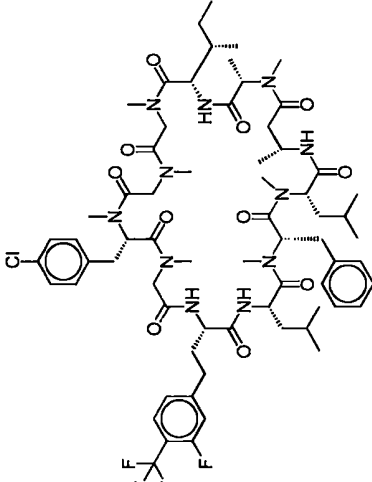
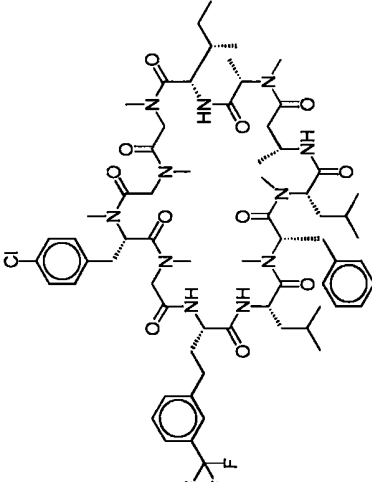
[5698]

	
2086	2088
	
2085	2087

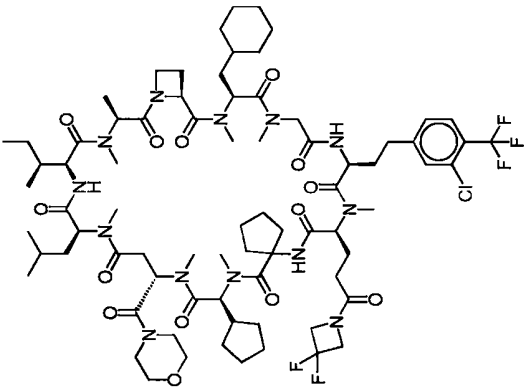
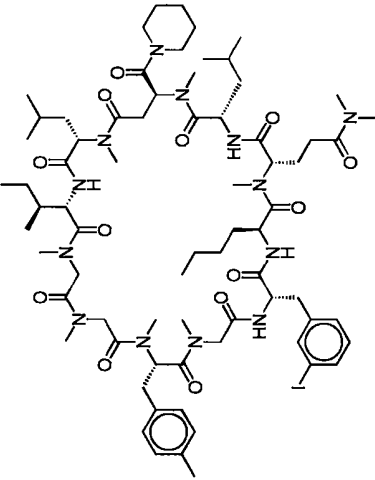
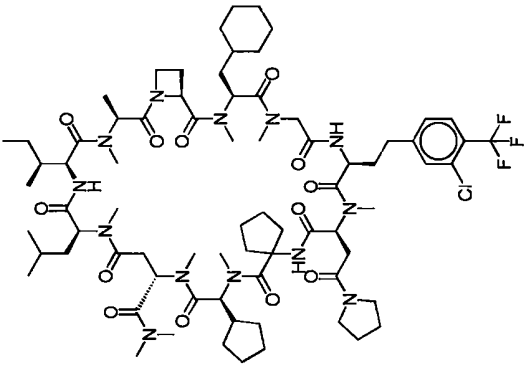
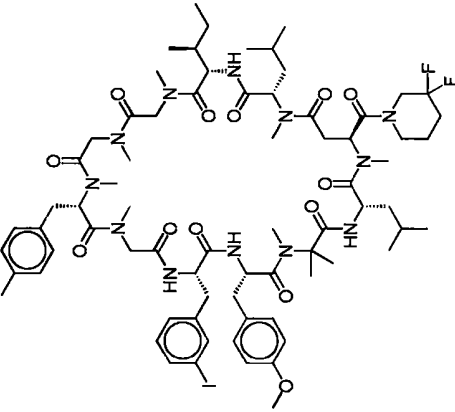
[5699]

	
2090	2092
	
2089	2091

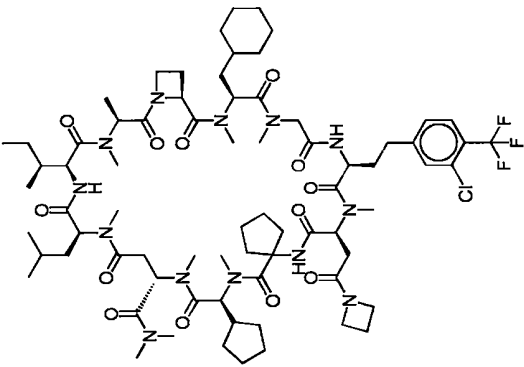
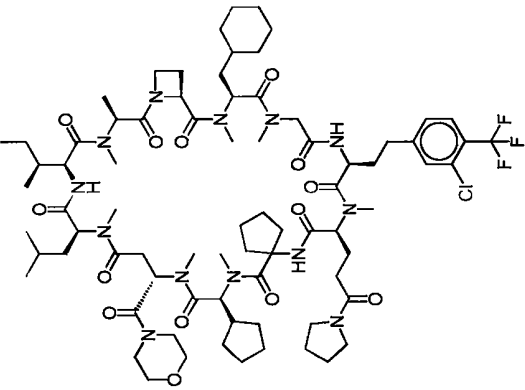
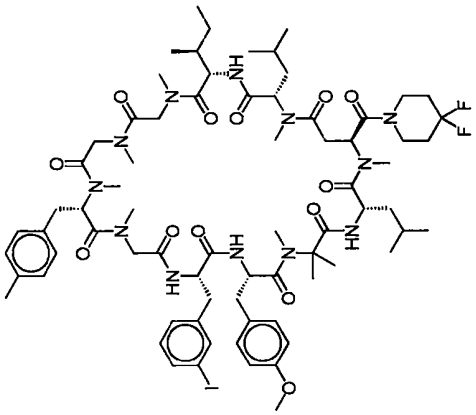
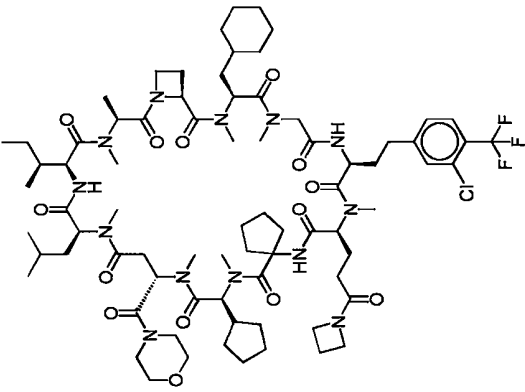
[5700]

	
2094	2096
	
2093	2095

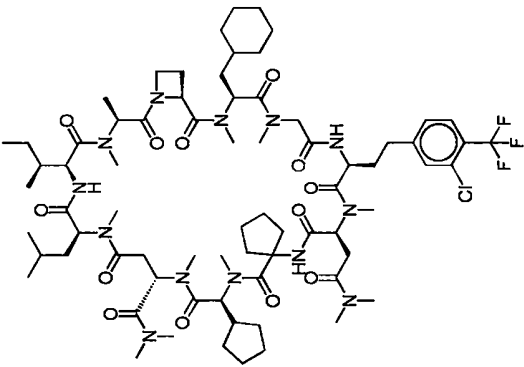
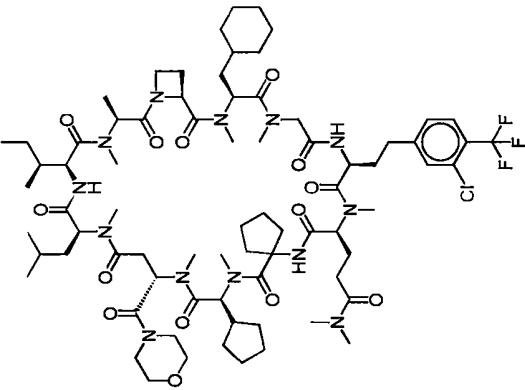
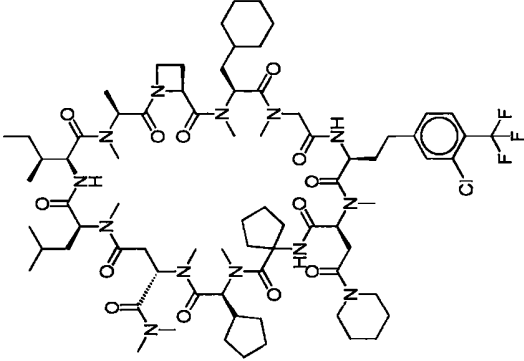
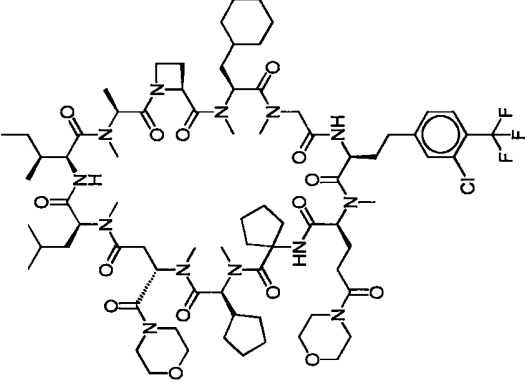
[5701]

	
2098	2100
	
2097	2099

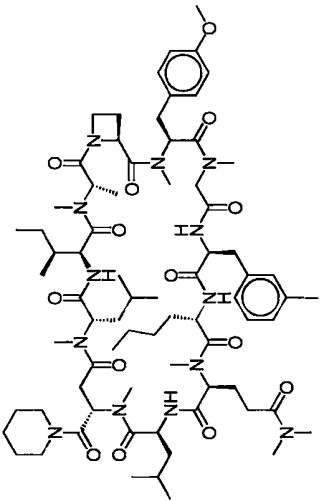
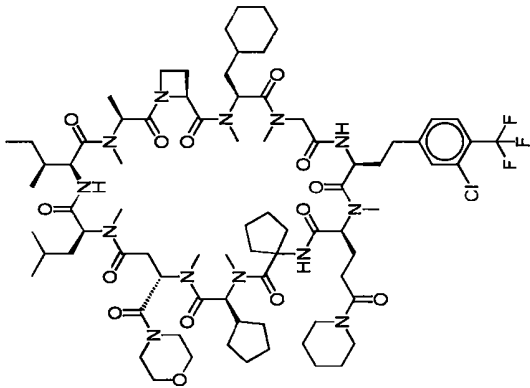
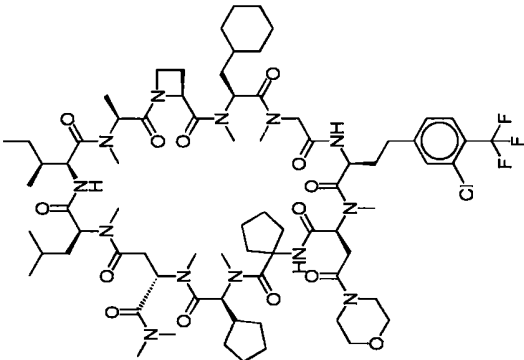
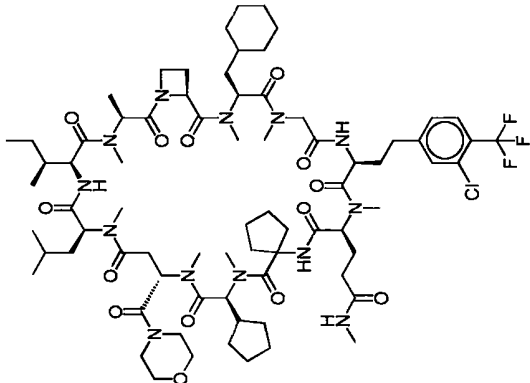
[5702]

	
2102	2104
	
2101	2103

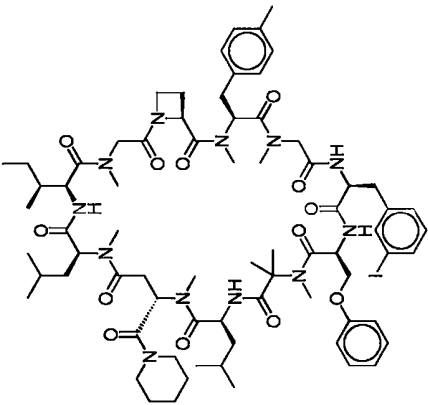
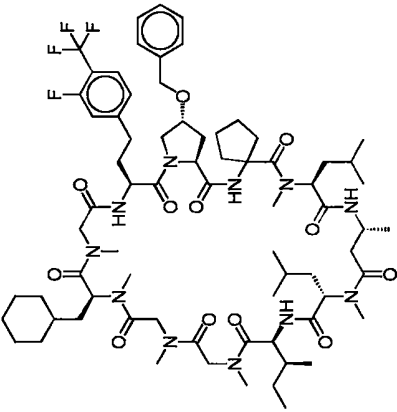
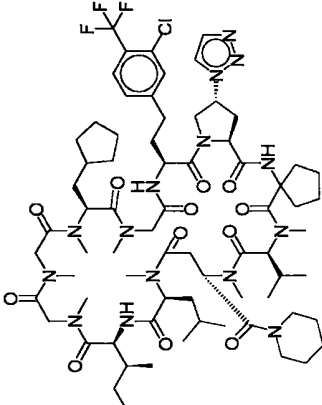
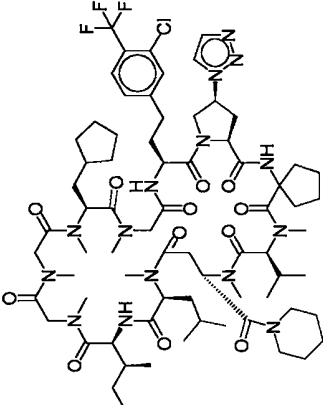
[5703]

	
2106	2108
	
2105	2107

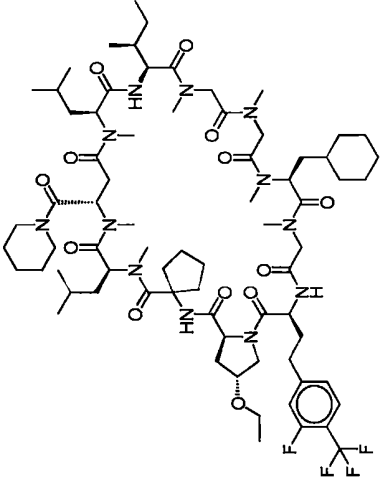
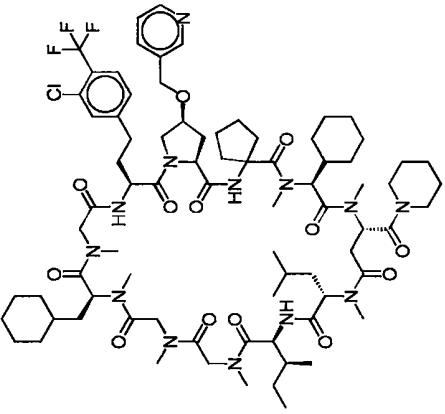
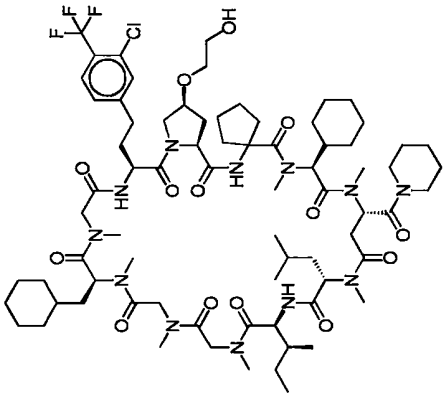
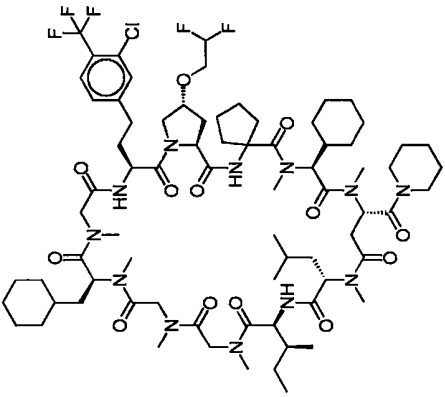
[5704]

	
2110	2112
	
2109	2111

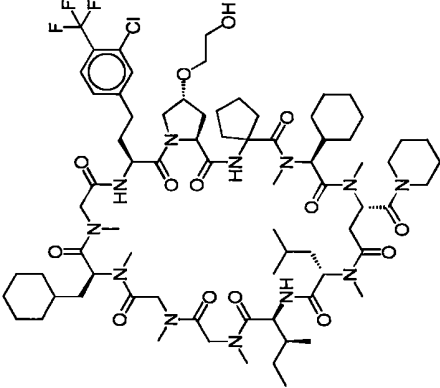
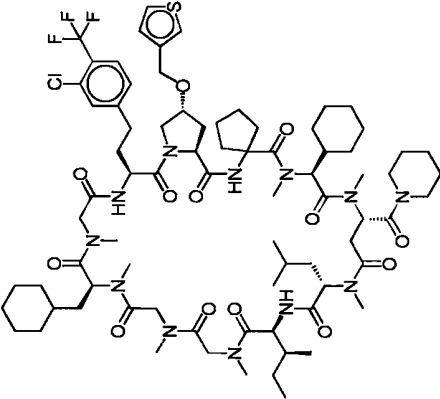
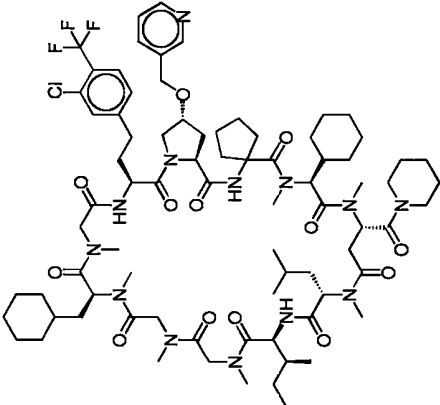
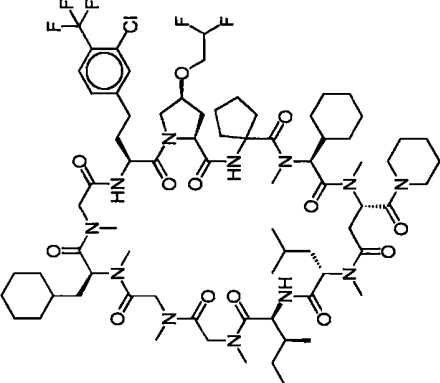
[5705]

	
2114	2116
	
2113	2115

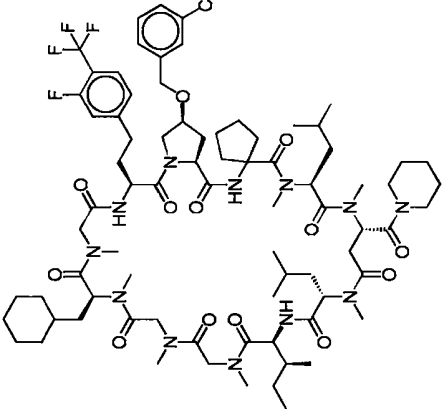
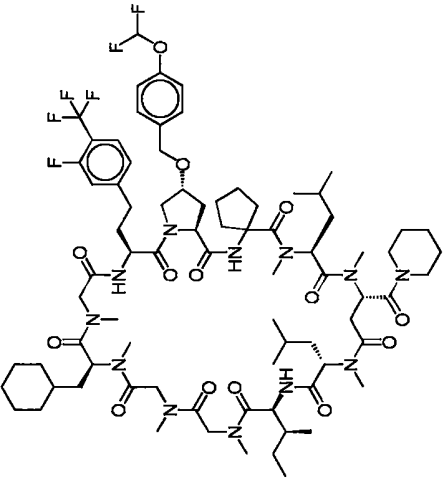
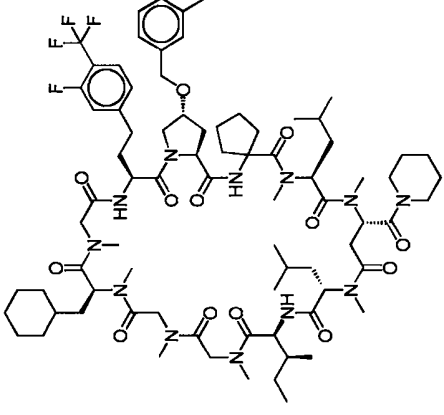
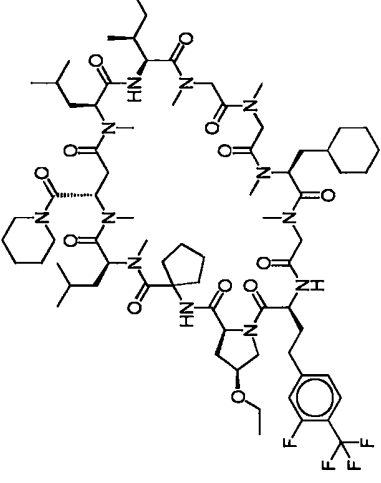
[5706]

	
2118	2120
	
2117	2119

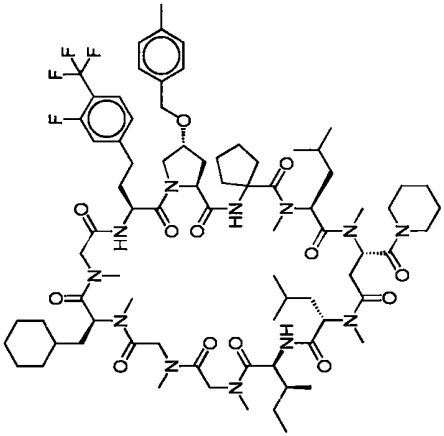
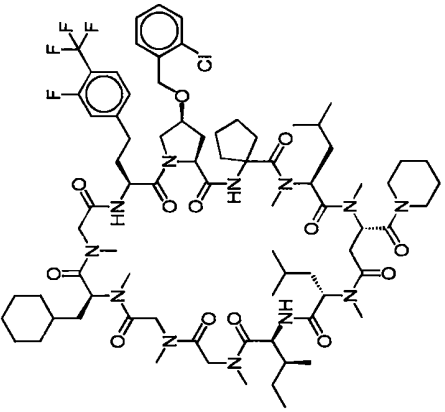
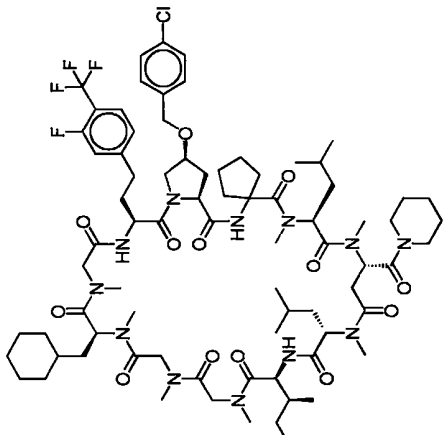
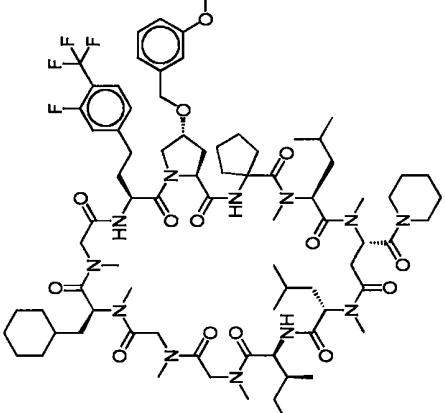
[5707]

	
2122	2124
	
2121	2123

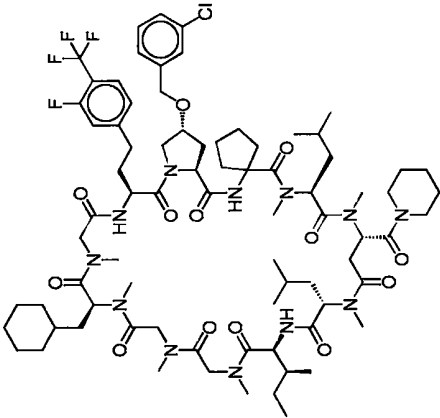
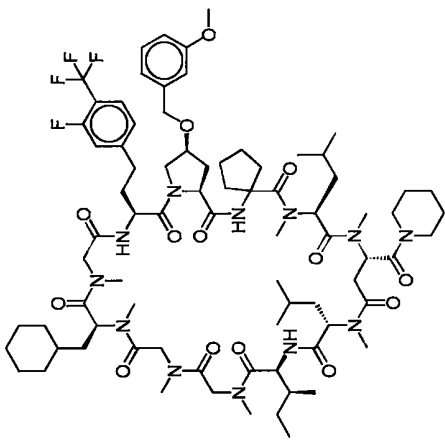
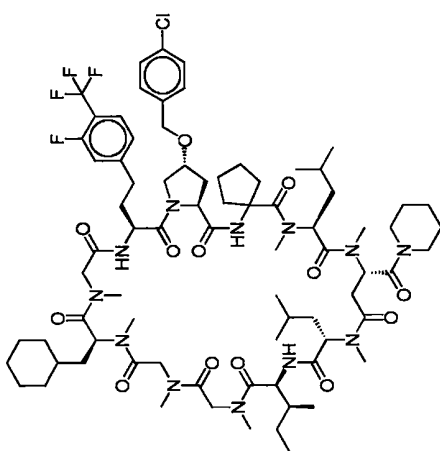
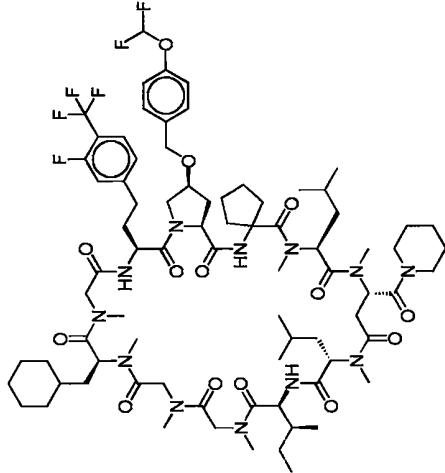
[5708]

	
2126	2128
	
2125	2127

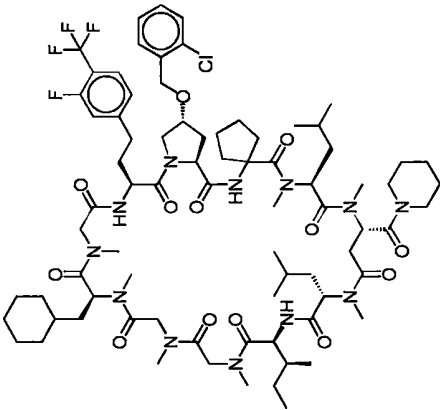
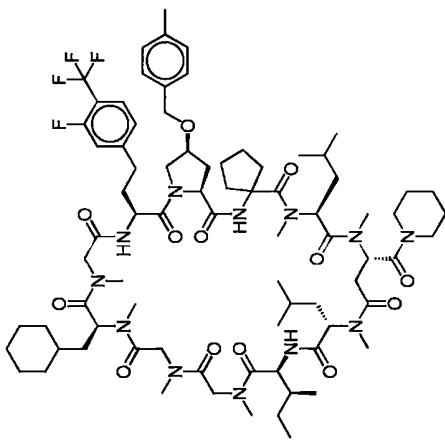
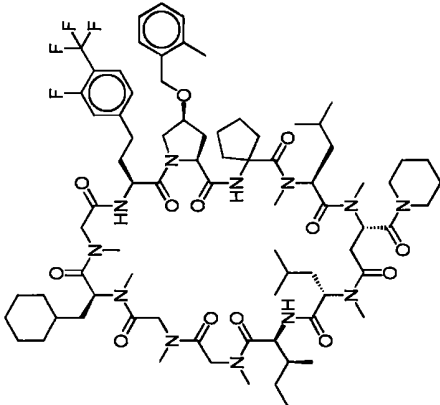
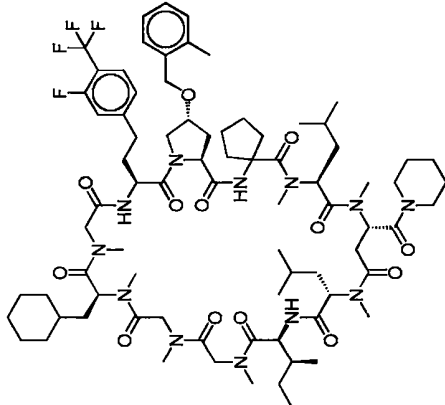
[5709]

	
2130	2132
	
2129	2131

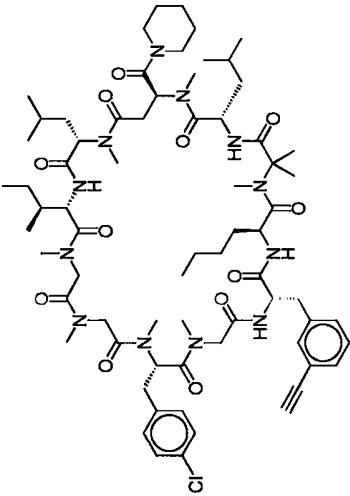
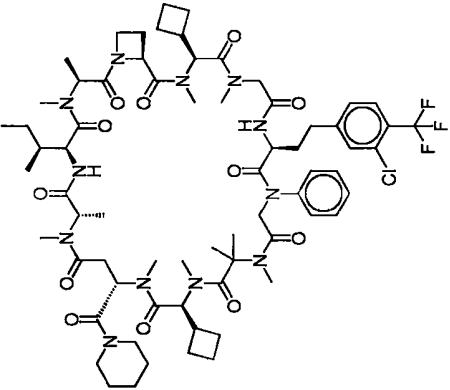
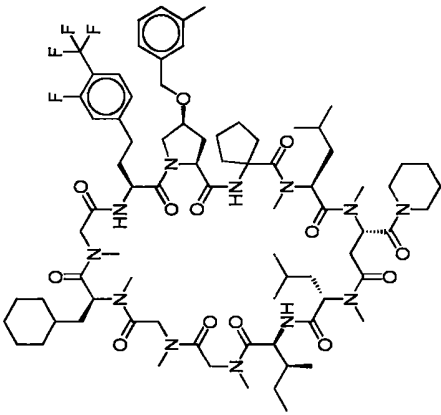
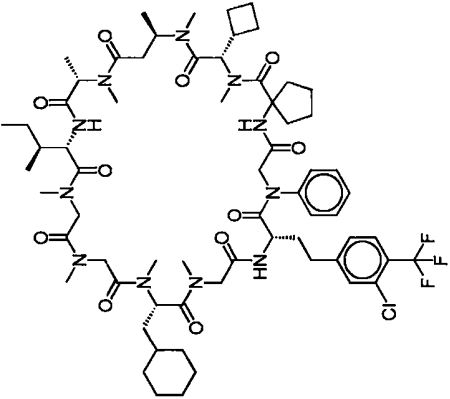
[5710]

	
2134	2136
	
2133	2135

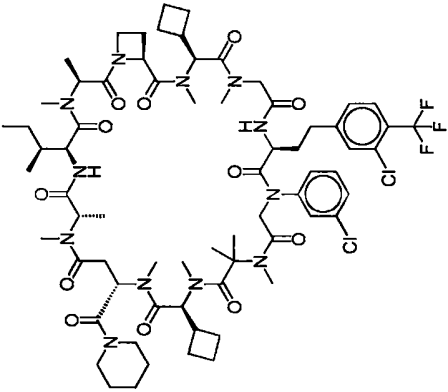
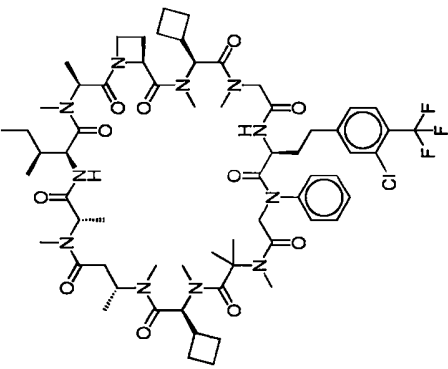
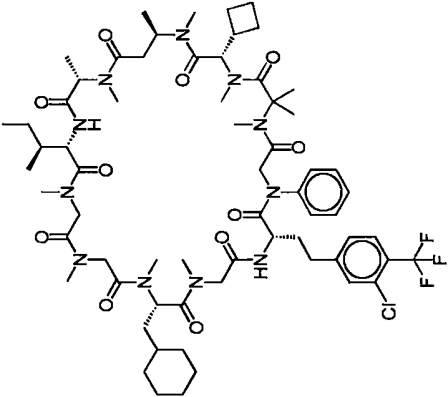
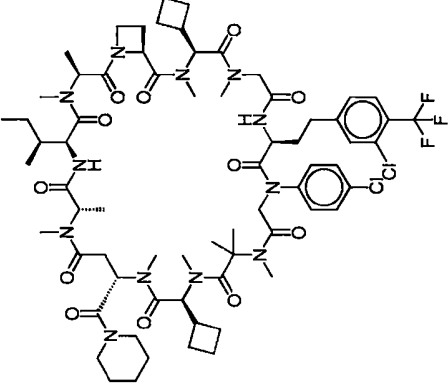
[5711]

	
2138	2140
	
2137	2139

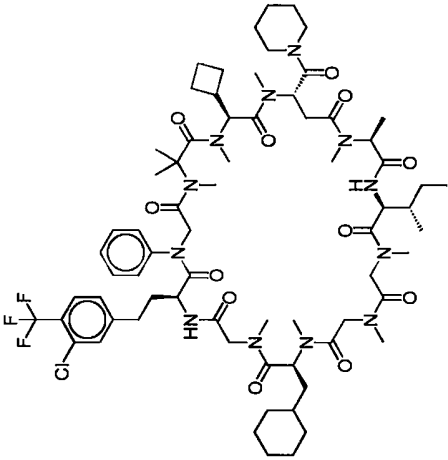
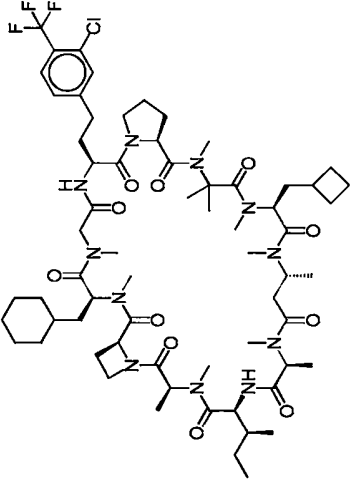
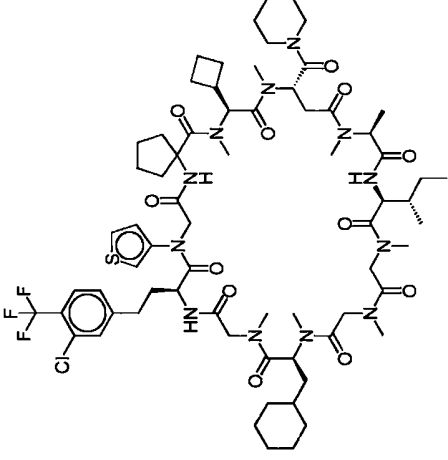
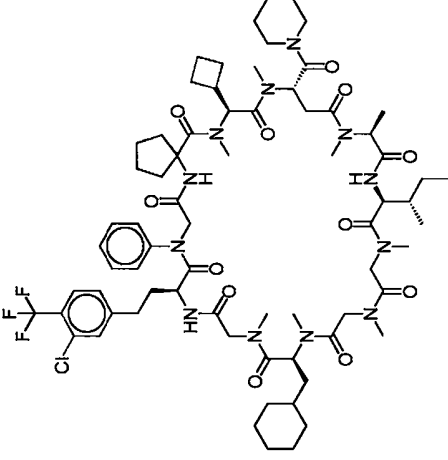
[5712]

	
2142	2144
	
2141	2143

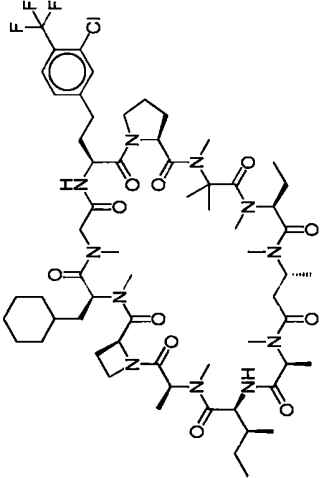
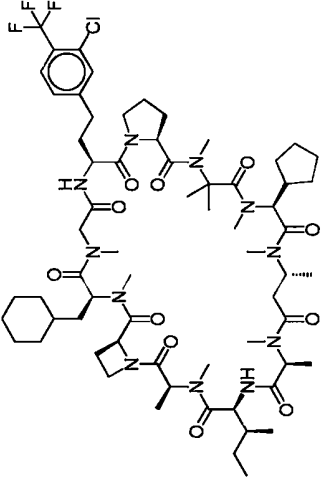
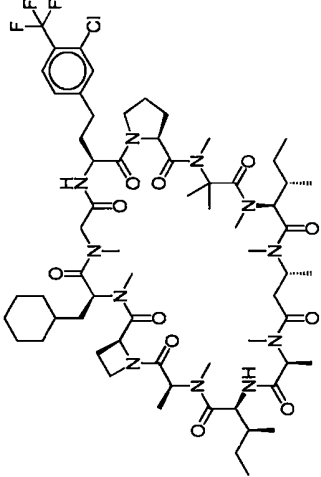
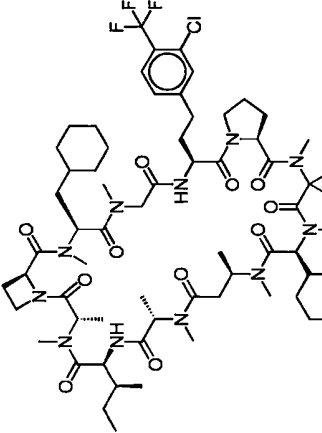
[5713]

	
2146	2148
	
2145	2147

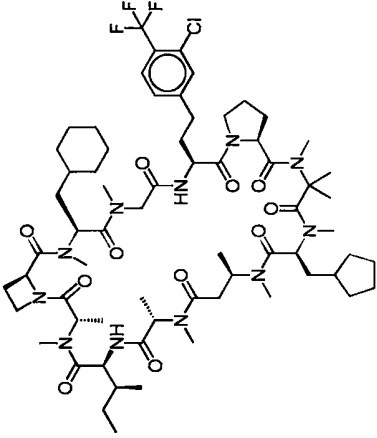
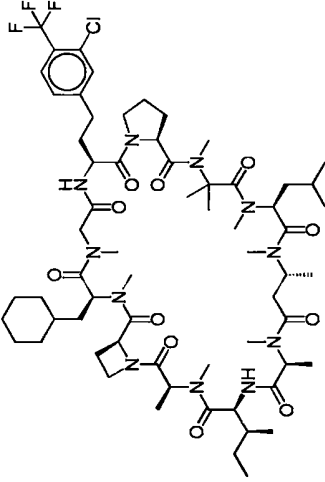
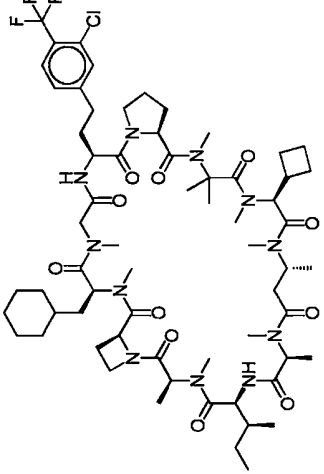
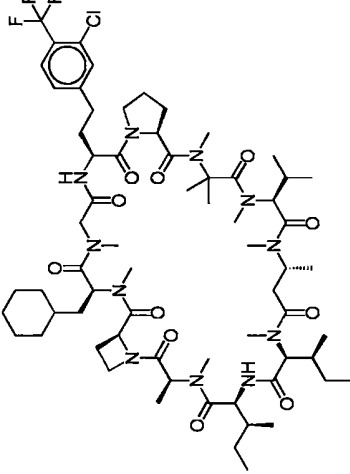
[5714]

	
2150	2152
	
2149	2151

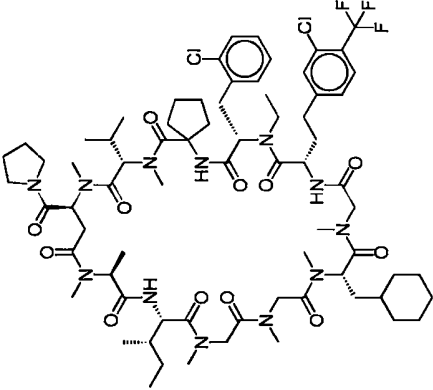
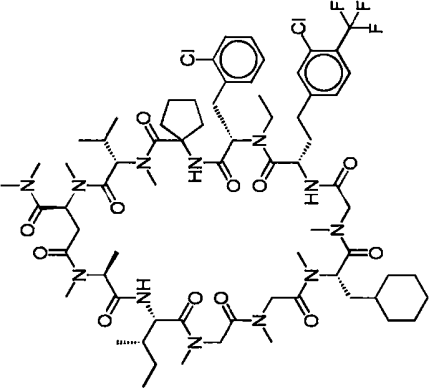
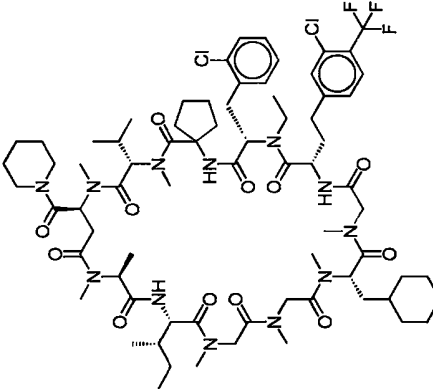
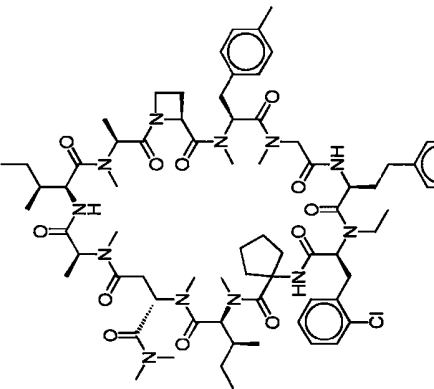
[5715]

	
2154	2156
	
2153	2155

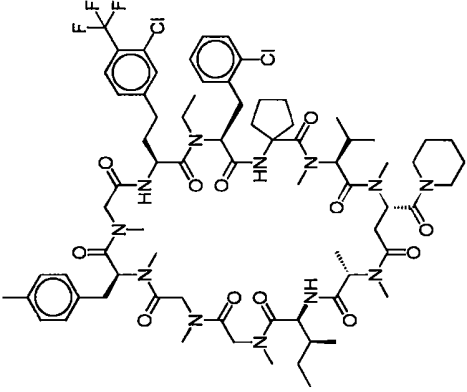
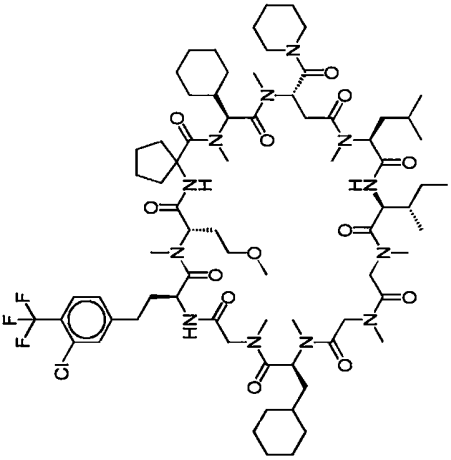
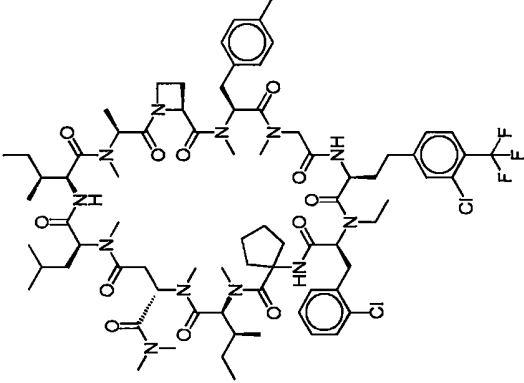
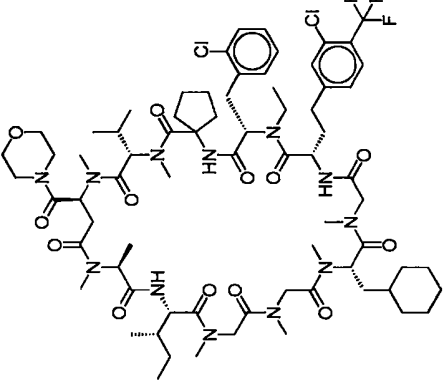
[5716]

	
2158	2160
	
2157	2159

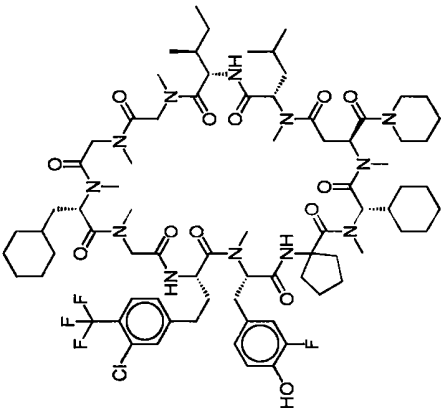
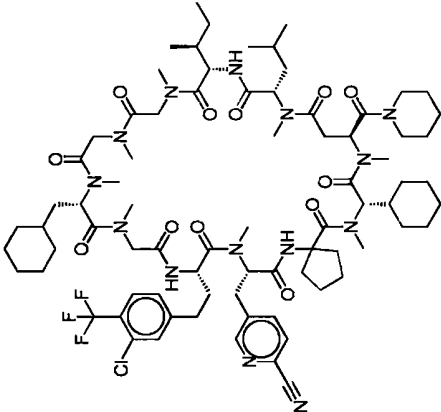
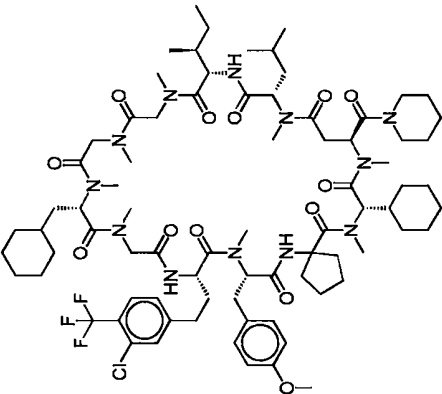
[5717]

	
2162	2164
	
2161	2163

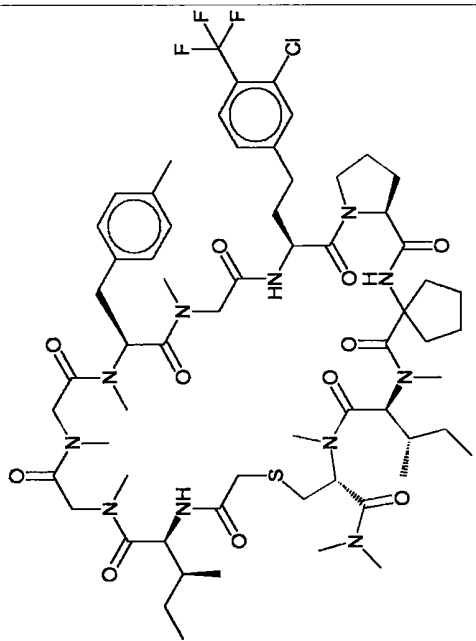
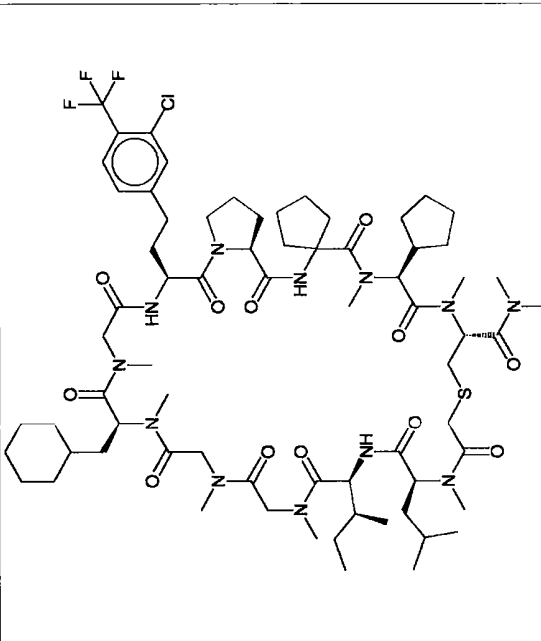
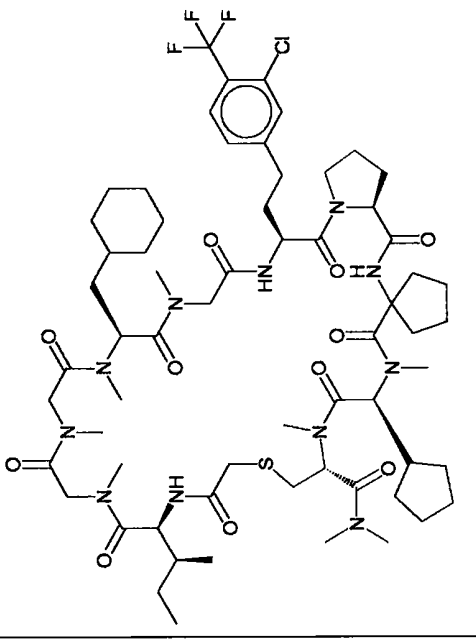
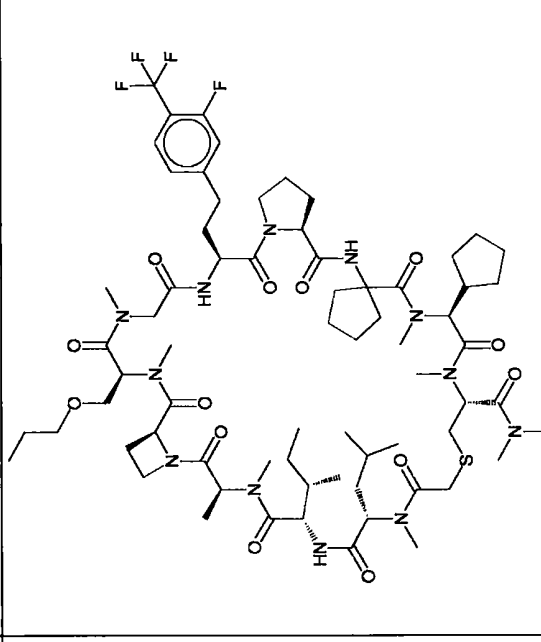
[5718]

	
2166	2168
	
2165	2167

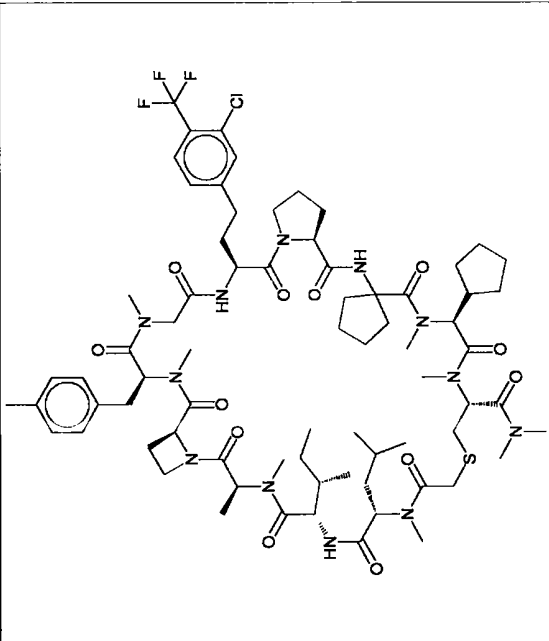
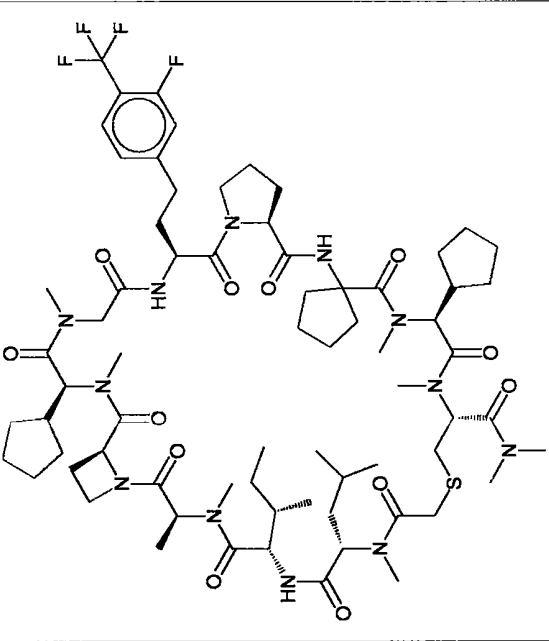
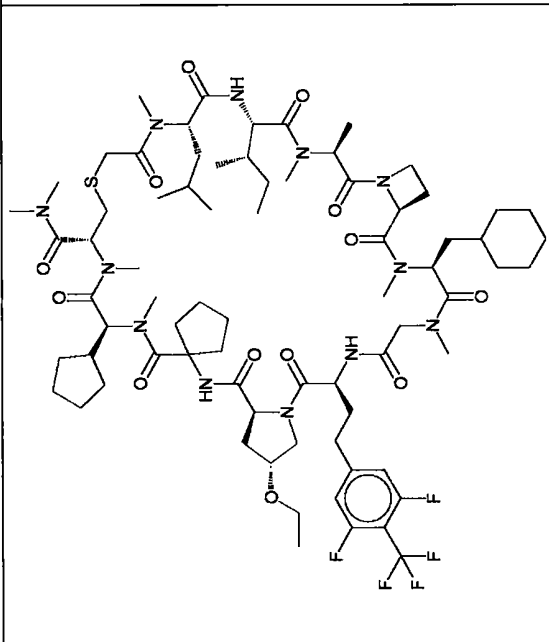
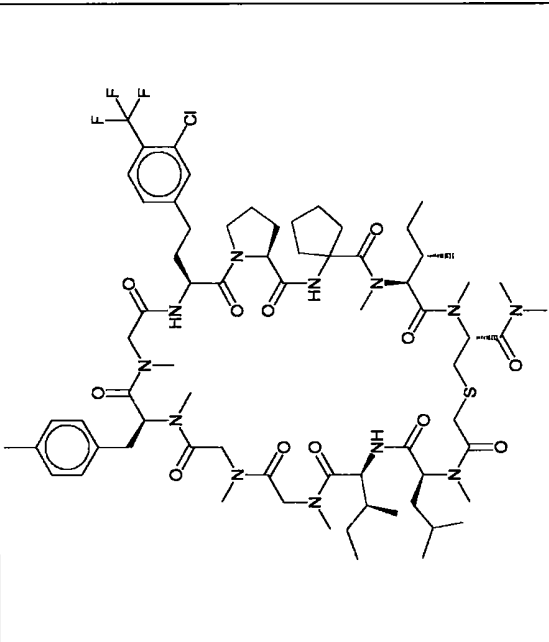
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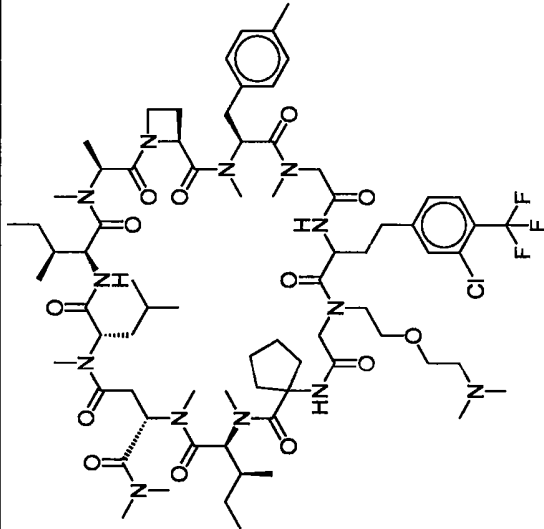
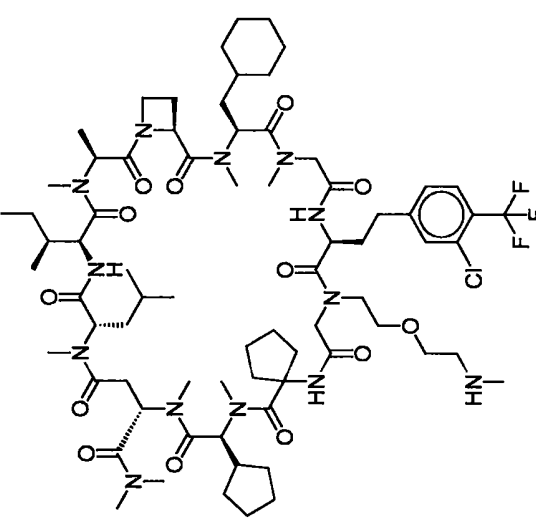
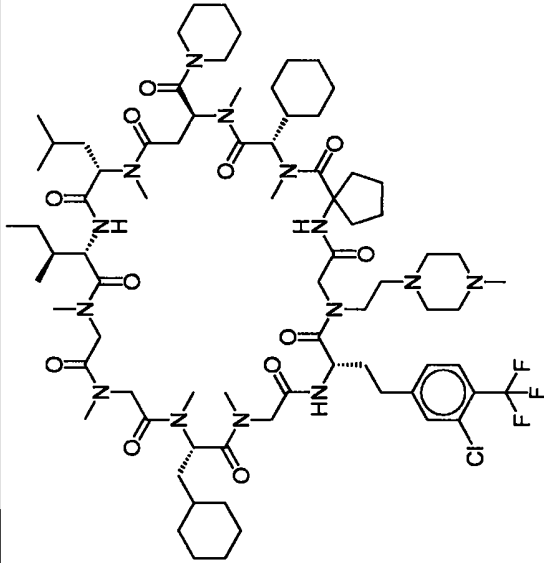
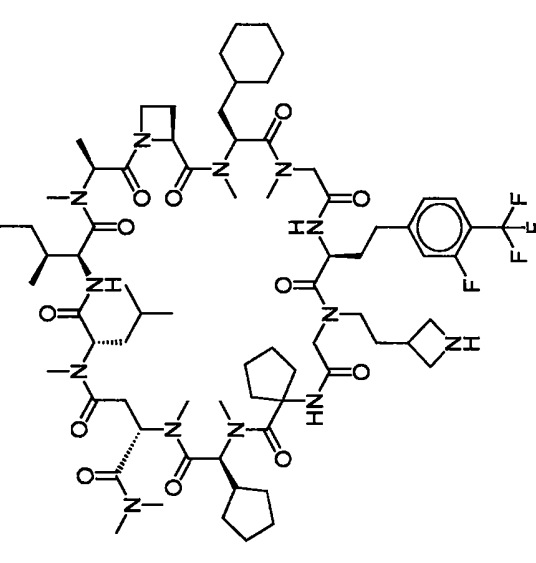
	
2170	
	
2169	2171

[5720]

	
2173	2175
	
2172	2174

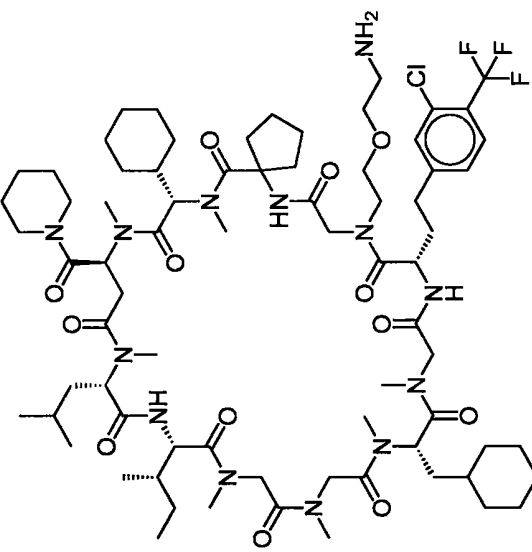
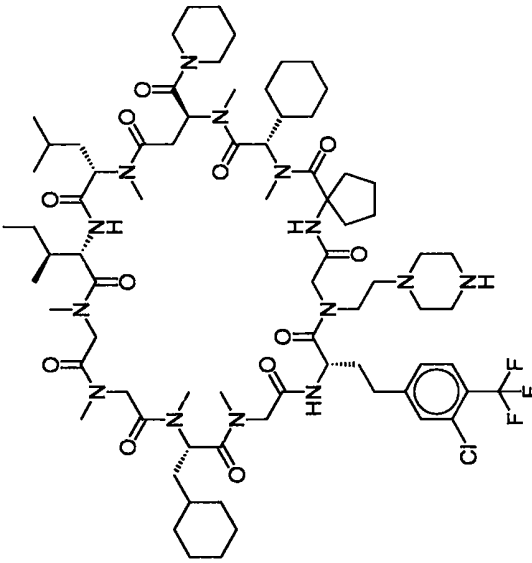
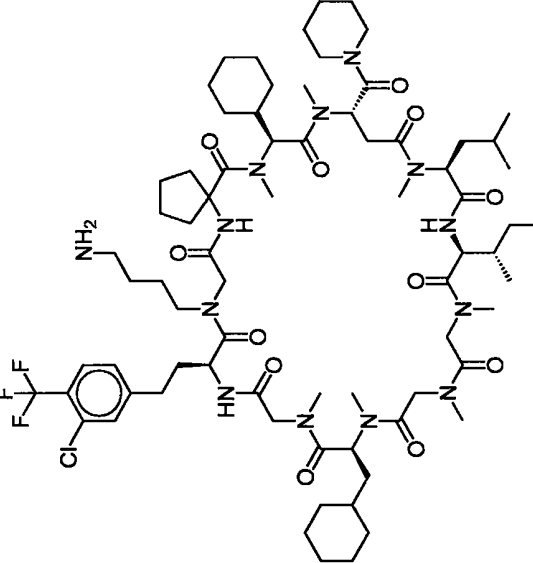
[5721]

	
2177	2179
	
2176	2178

	
2181	2183
	
2180	2182

[5722]

[5723]

	
2185	
	
2184	2186

[5724] [产业上的可利用性]

[5725] 根据本发明,能够提供具有Kras抑制作用的环状肽化合物。另外,根据本发明可提供作为环状肽化合物的原料有用的氨基酸。