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⑦④ Pilnvarotais vai pārstāvis:
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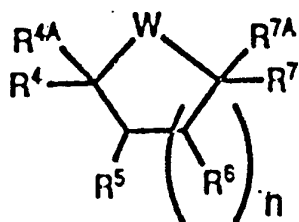
⑤④ Virsraksts: Aizvietoti cikliskie karbonili un to atvasinājumi, lietojami kā retrovīrusu proteāzes inhibitori, to izmantošana, farmaceitiskā kompozīcija

⑤⑦ Kopsavilkums: Izgudrojums attiecas uz aizvietotiem cikliskiem karboniliem un to atvasinājumiem, kas izmantojami kā retrovīrusu proteāzes inhibitori, farmaceitiskām kompozīcijām, kas satur šos savienojumus, un šo savienojumu izmantošanas paņēmieniem vīrusu infekcijas ārstēšanai.

* pieteikums pieņemts ievērojot LR Ministru Padomes 1992.gada 28.februāra lēmumu Nr.72 (PSRS pat.piet.Nr. 5011157, iesniegšanas datums 31.01.1992)

Patentformulas punkti

Savienojumi ar kopējo formulu (I)



(I)

un to farmaceitiskiem mērķiem piemērotās sāļis, vai proārstnieciskās formas, kuru formulā (I):

R⁴ un R⁷ neatkarīgi viens no otra ņemts no grupas:

ūdeņraža atoms;

C₁₋₈-alkilgrupa, kas aizvietota ar 0 - 3 R¹¹;

C₂₋₈-alkenilgrupa, kas aizvietota ar 0 - 3 R¹¹;

C₂₋₈-alkinilgrupa, kas aizvietota ar 0 - 3 R¹¹;

C₃₋₈-cikloalkilgrupa, kas aizvietota ar 0 - 3 R¹¹;

C₆₋₁₀-bīcikloalkilgrupa, kas aizvietota ar 0 - 3 R¹¹;

arilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

C_{6-14} -karbocikliska grupa, kas aizvietota ar 0 - 3 R^{12} ;

ar 0 - 2 R^{12} aizvietota heterociklisku gredzenu sistēma, kas satur 5 - 10 atomus, no kuriem vismaz viens ir slāpekļa, skābekļa vai sēra atoms;

R^{4A} un R^{7A} neatkarīgi viens no otra ņemts no grupas:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar halogēna atomu vai C_{1-2} -alkoksigrupu;

benzilgrupa, kas aizvietota ar halogēna atomu vai C_{1-2} -alkoksigrupu;

R^4 un R^{4A} var arī būt savienoti, veidojot 5 - 7 locekļu karbociklu, kas aizvietots ar 0 - 2 R^{12} ;

R^7 un R^{7A} var arī būt savienoti, veidojot 5 - 7 locekļu karbociklu, kas aizvietots ar 0 - 2 R^{12} ;

n ir 0, 1 vai 2;

R^5 ir F, F_2 , =O, C_{1-3} -alkilgrupa vai $-OR^{20}$;

R^6 , kad n = 1, ir H, =O, F, F_2 , C_{1-3} -alkilgrupa vai $-OR^{21}$;

R^6 , kad n = 2, ir, neatkarīgi viens no otra, H, =O, F, F_2 , C_{1-3} -alkilgrupa vai $-OR^{21}$;

R^5 un R^6 var bū savienoti, veidojot epoksīda ciklu;

R^{20} un R^{21} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

C_{1-6} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-6} -alkoksialkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{1-6} -alkilkarbonilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{1-6} -alkoksikarbonilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

benzoilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

fenoksikarbonilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

fenilaminokarbonilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

vai jebkura grupa, kas zīdītāja organismā pārvēršas par hidroksilgrupu;

R^{11} ņemts no vienas vai vairākām šādām grupām:

ketogrupa, halogēna atoms, ciāngrupa, $-NR^{13}R^{14}$, $-COOR^{13}$,

$-OC(=O)R^{13}$, $-OR^{13}$, C_{2-6} -alkoksialkilgrupa, $-S(O)_mR^{13}$,

$-NHC(=NH)NHR^{13}$, $-C(=NH)NHR^{13}$, $-C(=O)NR^{13}R^{14}$, $-NR^{14}C(=O)R^{13}$,

$=NOR^{14}$, $-NR^{14}C(=O)OR^{14}$, $-OC(=O)NR^{13}R^{14}$, $-NR^{13}C(=O)NR^{13}R^{14}$,

$-NR^{14}SO_2NR^{13}R^{14}$, $-NR^{14}SO_2R^{13}$, $-SO_2NR^{13}R^{14}$, C_{1-4} -alkilgrupa,

C_{2-4} -alkenilgrupa, C_{3-6} -cikloalkilgrupa, C_{3-6} -cikloalkilmetilgrupa;

1 - 3 aminoskābes, kas saistītas ar amīdu saitēm un pievienotas pie R^4 un R^7 ar amīna vai karboksila galu;

C_{5-14} -karbocikliska grupa, kas aizvietota ar 0 - 3 R^{12} ;

arilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

ar 0 - 2 R^{12} aizvietota heterociklisku gredzenu sistēma, kas satur

5 - 10 atomus, no kuriem vismaz viens ir slāpekļa, skābekļa vai sēra atoms;

R^{12} , kad tas atrodas pie oglekļa atoma, ņemts no vienas vai vairākām šādām grupām:

fenilgrupa, benzilgrupa, fenetilgrupa, fenoksigrupa, benziloksi-
grupa, halogēna atoms, hidroksilgrupa, nitrogrupa, ciāngrupa,
 C_{1-4} -alkilgrupa, C_{3-6} -cikloalkilgrupa, C_{3-6} -cikloalkilmetilgrupa,
 C_{7-10} -arilalkilgrupa, C_{1-4} -alkoksigrupa, $-NR^{13}R^{14}$,
 C_{2-6} -alkoksialkilgrupa, C_{1-4} -hidroksialkilgrupa, metilēndioksigru-
pa, etilēndioksigrupa, C_{1-4} -halogēnalkilgrupa, C_{1-4} -halogēnalkok-
sigrupa, C_{1-4} -alkoksikarbonilgrupa, C_{1-4} -alkilkarboniloksigrupa,
 C_{1-4} -alkilkarbonilgrupa, C_{1-4} -alkilkarbonilaminogrupa, $-S(O)_mR^{13}$,
 $-SO_2NR^{13}R^{14}$, $-NHSO_2R^{14}$, $-OCH_2COOH$, 2-(1-morfolīno)etoksigrupa;

5 - 6 locekļu heterocikls, kas satur 1 - 4 heteroatomus no grupas:
skābeklis, slāpeklis, sērs;

R^{12} var būt arī 3 - 4 oglekļa atomu ķēdīte, kas pievienota blakus-
esošajiem cikla oglekļa atomiem, tā veidojot kondensētu 5 vai 6
locekļu ciklu, kas var būt neobligāti aizvietots pie alifātiska-
jiem oglekļa atomiem ar halogēna atomu, C_{1-4} -alkilgrupu, C_{1-4} -al-
koksigrupu, hidroksilgrupu, $-NR^{13}R^{14}$;
vai karbonilgrupu un tiokarbonilgrupu tajā gadījumā, kad R^{12} ir
pievienots piesātinātam oglekļa atomam;

R^{12} , kad tas atrodas pie slāpekļa atoma, ņemts no vienas vai vairākām

šādām grupām:

fenilgrupa, benzilgrupa, fenetilgrupa, hidroksilgrupa,
 C_{1-4} -alkilgrupa, C_{3-6} -cikloalkilgrupa, C_{3-6} -cikloalkilmetilgrupa,
 $-NR^{13}R^{14}$, C_{2-6} -alkoksialkilgrupa, C_{1-4} -hidroksialkilgrupa,
 C_{1-4} -halogēnalkilgrupa, C_{1-4} -alkoksikarbonilgrupa,
 C_{1-4} -alkilkarbonilgrupa, C_{1-4} -alkilkarboniloksigrupa;
 C_{1-4} -alkoksigrupa;

R^{13} ir ūdeņraža atoms, fenilgrupa, benzilgrupa, C_{1-6} -alkilgrupa;

R^{14} ir ūdeņraža atoms, C_{1-4} -alkilgrupa;

R^{13} un R^{14} var arī būt savienoti, veidojot $-(CH_2)_4-$, $-(CH_2)_5-$,
 $-CH_2CH_2N(R^{15})CH_2CH_2-$, $-CH_2CH_2OCH_2CH_2-$;

R^{15} ir ūdeņraža atoms, metilgrupa;

m ir 0, 1 vai 2;

W ir pēmts no grupas:

$-N(R^{22})C(=Z)N(R^{23})-$;

$-N(R^{22})S(=O)N(R^{23})-$;

$-OC(=Z)O-$;

$-N(R^{22})C(=Z)O-$;

$-C(R^{25})(R^{26})C(=Z)C(R^{27})(R^{28})-$;

$-N(R^{22})C(=Z)C(R^{27})(R^{28})-$;

$-C(R^{25})(R^{26})C(=Z)O-$;

$-N(R^{22})C(=O)C(=O)N(R^{23})-$;

$-N(R^{25})(R^{26})CF_2C(R^{27})(R^{28})-$;

$-C(R^{25})(R^{26})N(OR^{29})C(R^{27})(R^{28})-$;

$-C(R^{25})(R^{26})C(=Z)S-$;

kur:

Z ir O, S vai NR^{24} ;

R^{22} un R^{23} neatkarīgi viens no otra izvēlēts no grupas:

ūdeņraža atoms;

C_{1-8} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkinilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-8} -cikloalkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{6-10} -bicikloalkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

arilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

C_{6-14} -karbocikliska grupa, kas aizvietota ar 0 - 3 R^{12} ;

ar 0 - 2 R^{12} aizvietota heterociklisku gredzenu sistēma, kas

satur 5 - 10 atomus, no kuriem vismaz viens ir slāpekļa,

skābekļa vai sēra atoms;

R^{24} ir ņemts no grupas:

hidroksilgrupa;

aminogrupa;

C_{1-4} -alkilgrupa;

C_{1-4} -alkoksigrupa;

C_{1-4} -aminoalkilgrupa;

R^{25} un R^{27} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

C_{1-8} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkenilgrupa, kas aizvietota ar $O - 3 R^{11}$;
 C_{2-8} -alkinilgrupa, kas aizvietota ar $O - 3 R^{11}$;
 C_{3-8} -cikloalkilgrupa, kas aizvietota ar $O - 3 R^{11}$;
 C_{6-10} -bicikloalkilgrupa, kas aizvietota ar $O - 3 R^{11}$;
 arilgrupa, kas aizvietota ar $O - 3 R^{12}$;
 C_{6-14} -karbocikliska grupa, kas aizvietota ar $O - 3 R^{12}$;
 ar $O - 2 R^{12}$ aizvietota heterociklisku gredzenu sistēma, kas
 satur 5 - 10 atomus, no kuriem vismaz viens ir slāpekļa,
 skābekļa vai sēra atoms;

R^{26} un R^{28} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;
 ar halogēna atomu vai C_{1-2} -alkoksigrupu aizvietota C_{1-4} -alkilgrupa
 ar halogēna atomu vai C_{1-2} -alkoksigrupu aizvietota benzilgrupa;

R^{29} izvēlēts no grupas:

ūdeņraža atoms;
 ar halogēna atomu vai C_{1-2} -alkoksigrupu aizvietota
 C_{1-4} -alkilgrupa ;
 ar halogēna atomu vai C_{1-2} -alkoksigrupu aizvietota benzilgrupa;
 vai arī, R^{22} , R^{25} un R^{26} , neatkarīgi viens no otra var būt savienoti
 ar R^4 vai R^{4A} , veidojot 5 vai 6 locekļu kondensētu aromātisku vai
 aliciklisku heterociklu, kas aizvietots ar $O - 2 R^{12}$;

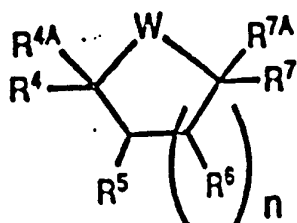
vai arī, R^{23} , R^{27} un R^{28} , neatkarīgi viens no otra var būt savienoti
 ar R^7 vai R^{7A} , veidojot 5 vai 6 locekļu kondensētu aromātisku vai
 aliciklisku heterociklu, kas aizvietots ar $O - 2 R^{12}$;

ar tādu noteikumu, ka:

ja R^4 ir ūdeņraža atoms, tad R^7 nav ūdeņraža atoms;
 ja W ir $-OC(=Z)O-$, tad R^4 un R^7 nav ūdeņraža atoms;
 ja R^4 ir ūdeņraža atoms, tad vismaz viens no šiem aizvietotājiem

nav ūdeņraža atoms: R^{22} , R^{23} , R^{25} , R^{26} , R^{27} un R^{28} .

2. Savienojums pēc punkta 1 ar formulu (I)



(I)

vai tā farmaceitiskiem nolūkiem piemērotā sāls, vai proārstnieciskā forma, kur:

R^4 un R^7 , neatkarīgi viens no otra ir ņemti no šādām grupām:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-4} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-4} -alkinilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^{4A} un R^{7A} ir ūdeņraža atoms;

n ir 0 vai 1;

R^5 ir ņemts no grupas: F, F_2 , =O, $-OR^{20}$;

R^6 ir ņemts no grupas: H, F, F_2 , =O, $-OR^{21}$;

R^{20} un R^{21} , neatkarīgi viens no otra ir ņemti no grupas:

ūdeņraža atoms;

C_{1-6} -alkoksikarbonilgrupa;

C_{1-6} -alkilkarbonilgrupa;

benzoilgrupa;

jebkura grupa, kas zīdītāja organismā pārvēršas par brīvu

hidroksilgrupu;

R^{11} ņemts no vienas vai vairākām šādām grupām:

ketogrupa, halogēna atoms, ciāngrupa, $-NR^{13,14}$, $-COOR^{13}$,

$-OC(=O)R^{13}$, $-OR^{13}$, C_{2-4} -alkoksialkilgrupa, $-S(O)_m R^{13}$,

C_{1-4} -alkilgrupa, C_{1-4} -alkenilgrupa, C_{3-6} -cikloalkilgrupa;

C_{5-14} -karbocikliska grupa, kas aizvietota ar 0 - 3 R^{12} ;

arilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

ar 0 - 2 R^{12} aizvietota heterociklisku gredzenu sistēma, kas satur

5 - 10 atomus, no kuriem vismaz viens ir slāpekļa, skābekļa vai

sēra atoms;

R^{12} , kad tas atrodas pie oglekļa atoma, ņemts no šādu aizvietotāju grupas:

fenilgrupa, benzilgrupa, fenetilgrupa, fenoksigrupa, benziloksi-

grupa, halogēna atoms, hidroksilgrupa, nitrogrupa, ciāngrupa,

C_{1-4} -alkilgrupa, C_{3-6} -cikloalkilgrupa, C_{3-6} -cikloalkilmetilgrupa,

C_{7-10} -arilalkilgrupa, C_{1-4} -alkoksigrupa, $-NR^{13,14}$,

C_{2-6} -alkoksialkilgrupa, C_{1-4} -hidroksialkilgrupa, metilēndioksigru-

pa, etilēndioksigrupa, C_{1-4} -halogēnalkilgrupa, C_{1-4} -halogēnalkok-

sigrupa, C_{1-4} -alkoksikarbonilgrupa, C_{1-4} -alkilkarboniloksigrupa,

C_{1-4} -alkilkarbonilgrupa, C_{1-4} -alkilkarbonilaminogrupa, $-S(O)_m R^{13}$,

$-\text{SO}_2\text{NR}^{13}\text{R}^{14}$, $-\text{NHSO}_2\text{R}^{14}$;

5 - 6 locekļu heterocikls, kas satur 1 - 4 heteroatomus no grupas:
skābeklis, slāpeklis, sērs;

R^{12} var būt arī 3 - 4 oglekļa atomu ķēdīte, kas pievienota blakus-
esošajiem cikla oglekļa atomiem, tā veidojot kondensētu 5 vai 6
locekļu ciklu, kas var būt neobligāti aizvietots pie alifatiska-
jiem oglekļa atomiem ar halogēna atomu, C_{1-4} -alkilgrupu, C_{1-4} -al-
koksigrupu, hidroksilgrupu, $-\text{NR}^{13}\text{R}^{14}$;
vai karbonilgrupu un tiokarbonilgrupu tajā gadījumā, kad R^{12} ir
pievienots piesātinātam oglekļa atomam;

R^{12} , kad tas atrodas pie slāpekļa atoma, ņemts no vienas vai vairākām
šādām grupām:

fenilgrupa, benzilgrupa, fenetilgrupa, hidroksilgrupa,
 C_{1-4} -alkilgrupa, C_{3-6} -cikloalkilgrupa, C_{3-6} -cikloalkilmetilgrupa,
 $-\text{NR}^{13}\text{R}^{14}$, C_{2-6} -alkoksialkilgrupa, C_{1-4} -hidroksialkilgrupa,
 C_{1-4} -halogēnalkilgrupa, C_{1-4} -alkoksikarbonilgrupa,
 C_{1-4} -alkilkarbonilgrupa, C_{1-4} -alkilkarboniloksigrupa;
 C_{1-4} -alkoksigrupa;

R^{13} ir ūdeņraža atoms, C_{1-6} -alkilgrupa;

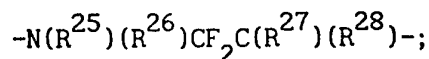
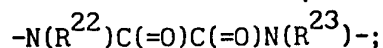
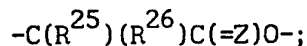
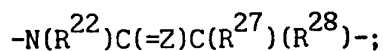
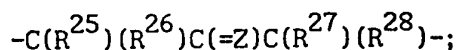
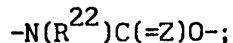
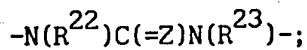
R^{14} ir ūdeņraža atoms, C_{1-4} -alkilgrupa, benzilgrupa;

R^{13} un R^{14} var arī būt savienoti, veidojot $-(\text{CH}_2)_4-$, $-(\text{CH}_2)_5-$,
 $-\text{CH}_2\text{CH}_2\text{N}(\text{R}^{15})\text{CH}_2\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2-$;

R^{15} ir ūdeņraža atoms, metilgrupa;

m ir 0, 1 vai 2;

W ir ņemts no grupas:



kur:

Z ir O;

R^{22} un R^{23} neatkarīgi viens no otra izvēlēts no grupas:

ūdeņraža atoms;

C_{1-8} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkinilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-8} -cikloalkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^{25} un R^{27} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

C_{1-8} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{2-8} -alkinilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^{26} un R^{28} ir ūdeņraža atoms;

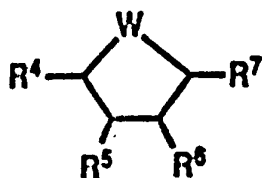
ar tādu noteikumu, ka:

ja R^4 ir ūdeņraža atoms, tad R^7 nav ūdeņraža atoms;

ja W ir $-OC(=Z)O-$, tad R^4 un R^7 nav ūdeņraža atoms;

ja R^4 ir ūdeņraža atoms, tad vismaz viens no šiem aizvietotājiem nav ūdeņraža atoms: R^{22} , R^{23} , R^{25} , R^{26} , R^{27} un R^{28} .

3. Savienojums pēc punkta 1 ar formulu (II)



(II)

vai tā farmaceitiskiem mērķiem piemērota sāls, vai proārstnieciskā forma, kur:

R^4 un R^7 neatkarīgi viens no otra ņemts no grupas:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-4} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^5 ir $-OR^{20}$;

R^6 ir H vai $-OR^{21}$;

R^{20} un R^{21} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

vai jebkura grupa, kas zīdītāja organismā pārvēršas par hidroksilgrupu;

R^{11} ņemts no vienas vai vairākām šādām grupām:

ketogrupa, halogēna atoms, $-NR^{13,14}$, $-OR^{13}$, C_{2-4} -alkoksialkilgrupa, C_{1-4} -alkilgrupa, C_{2-4} -alkenilgrupa, C_{3-6} -cikloalkilgrupa, arilgrupa, kas aizvietota ar 0 - 3 R^{12} ;

ar 0 - 2 R^{12} aizvietota heterociklisku gredzenu sistēma, kas satur 5 - 10 atomus, no kuriem vismaz viens ir slāpekļa, skābekļa vai sēra atoms;

R^{12} , kad tas atrodas pie oglekļa atoma, ņemts no šādām grupām:

fenilgrupa, benzilgrupa, fenetilgrupa, halogēna atoms, C_{1-4} -alkilgrupa, C_{1-4} -alkoksigrupa, $-NR^{13,14}$, fenoksigrupa, metilēndioksigrupa, C_{1-4} -halogēnalkilgrupa, benziloksigrupa, C_{7-10} -aralkilgrupa, C_{1-4} -alkilkarbonilgrupa, C_{1-4} -alkilkarbonilaminogrupa;

5 - 6 locekļu heterocikls, kas satur 1 - 4 heteroatomus no grupas: skābeklis, slāpeklis, sērs;

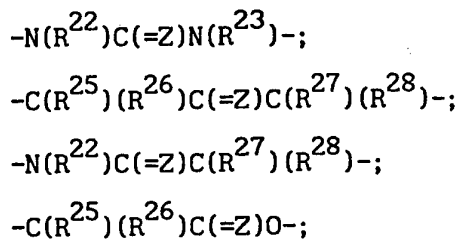
R^{12} , kad tas atrodas pie slāpekļa atoma, ir benzilgrupa vai metilgrupa;

R^{13} ir ūdeņraža atoms, C_{1-2} -alkilgrupa;

R^{14} ir ūdeņraža atoms, C_{1-2} -alkilgrupa;

R^{13} un R^{14} var arī būt savienoti, veidojot $-(CH_2)_4-$, $-(CH_2)_5-$,
 $-CH_2CH_2N(R^{15})CH_2CH_2-$, $-CH_2CH_2OCH_2CH_2-$;

W ir ņemts no grupas:



kur:

Z ir O;

R^{22} un R^{23} neatkarīgi viens no otra izvēlēts no grupas:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-4} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^{25} un R^{27} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

C_{3-4} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^{26} un R^{28} ir ūdeņraža atoms;

ar tādu noteikumu, ka:

ja R^4 ir ūdeņraža atoms, tad R^7 nav ūdeņraža atoms;

ja R^4 ir ūdeņraža atoms, tad vismaz viens no šiem aizvietotājiem
 nav ūdeņraža atoms: R^{22} , R^{23} , R^{25} , R^{26} , R^{27} un R^{28} .

4. Savienojums pēc punkta 3, kurā:

R^4 un R^7 neatkarīgi viens no otra ņemts no grupas:

ūdeņraža atoms;

C_{1-3} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

R^5 ir $-OR^{20}$;

R^6 ir H vai $-OR^{21}$;

R^{20} un R^{21} neatkarīgi viens no otra ņemti no grupas:

ūdeņraža atoms;

vai jebkura grupa, kas zīdītāja organismā pārvēršas par hidroksilgrupu;

R^{11} ņemts no vienas vai vairākām šādām grupām:

halogēna atoms, $-OR^{13}$, C_{1-4} -alkilgrupa, C_{5-6} -cikloalkilgrupa, arilgrupa, kas aizvietota ar 0 - 2 R^{12} ;

heterocikliska sistēma no grupas: piridīns, pirimidīns, triazīns, furāns, tiofēns, pirols, pirazols, imidazols, tetrazols, benzo-furāns, indols, hinolīns, izohinolīns;

R^{12} , kad tas atrodas pie oglekļa atoma, ņemts no šādām grupām:

halogēna atoms, C_{1-4} -alkoksigrupa, benziloksigrupa, $-CF_3$, metilgrupa, 2-(1-morfolīno)etoksigrupa;

R^{12} , kad tas atrodas pie slāpekļa atoma, ir metilgrupa;

R^{13} ir ūdeņraža atoms vai metilgrupa;

R^{14} ir ūdeņraža atoms vai metilgrupa;

R^{13} un R^{14} var arī būt savienoti, veidojot $-(CH_2)_4-$, $-(CH_2)_5-$,
 $-CH_2CH_2N(R^{15})CH_2CH_2-$, $-CH_2CH_2OCH_2CH_2-$;

W ir $-N(R^{22})C(=O)N(R^{23})-$;

kur:

R^{22} un R^{23} neatkarīgi viens no otra izvēlēts no grupas:

ūdeņraža atoms;

C_{1-4} -alkilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

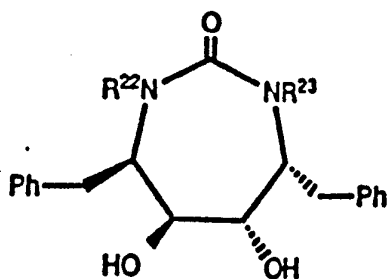
C_{3-4} -alkenilgrupa, kas aizvietota ar 0 - 3 R^{11} ;

ar tādu noteikumu, ka:

ja R^4 ir ūdeņraža atoms, tad R^7 nav ūdeņraža atoms;

ja R^4 ir ūdeņraža atoms, tad vismaz viens no R^{22} vai R^{23}
 nav ūdeņraža atoms.

5. Savienojums pēc punkta 1 ar formulu (IIa)



(IIa)

(IIa)

kurš ņemts no grupas:

savienojums (IIa), kurā R^{22} ir H, R^{23} ir H;

savienojums (IIa), kurā R^{22} ir allilgrupa, R^{23} ir allilgrupa;

savienojums (IIa), kurā R^{22} ir 3,7-dimetil-1-oktilgrupa,

R^{23} ir 3,7-dimetil-1-oktilgrupa;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$,

R^{23} ir $-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$;

savienojums (IIa), kurā R^{22} ir 3,7-dimetil-1-oktilgrupa, R^{23} ir H;

savienojums (IIa), kurā R^{22} ir $-(\text{CH}_2\text{CH}_2\text{O})_3\text{OCH}_3$, R^{23} ir H;

savienojums (IIa), kurā R^{22} ir $-(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$,

R^{23} ir $-(\text{CH}_2\text{CH}_2\text{O})_3\text{OCH}_3$;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}_2\text{OH}$,

R^{23} ir $-\text{CH}_2\text{CH}_2\text{NHCH}[\text{CH}(\text{CH}_3)_2]-\text{COO}-\text{CH}_2\text{C}_6\text{H}_5$;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}_2\text{NHCH}[\text{CH}(\text{CH}_3)_2]-\text{COO}-\text{CH}_2\text{C}_6\text{H}_5$,

R^{23} ir $-\text{CH}_2\text{CH}_2\text{NHCH}[\text{CH}(\text{CH}_3)_2]-\text{COO}-\text{CH}_2\text{C}_6\text{H}_5$;

savienojums (IIa), kurā R^{22} ir propilgrupa, R^{23} ir propilgrupa;

savienojums (IIa), kurā R^{22} ir metilgrupa, R^{23} ir metilgrupa;

savienojums (IIa), kurā R^{22} ir ciklopropilmetilgrupa,

R^{23} ir ciklopropilmetilgrupa;

savienojums (IIa), kurā R^{22} ir n-heksilgrupa,

R^{23} ir n-heksilgrupa;

savienojums (IIa), kurā R^{22} ir n-butilgrupa,

R^{23} ir n-butilgrupa;

savienojums (IIa), kurā R^{22} ir N-morfolīnoetilgrupa,

R^{23} ir N-morfolīnoetilgrupa;

savienojums (IIa), kurā R^{22} ir n-heptilgrupa,

R^{23} ir n-heptilgrupa;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$,

R^{23} ir $-\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

savienojums (IIa), kurā R^{22} ir etilgrupa,

R^{23} ir etilgrupa;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$,

R^{23} ir H;

savienojums (IIa), kurā R^{22} ir izopentilgrupa,

R^{23} ir izopentilgrupa;

savienojums (IIa), kurā R^{22} ir 4-piridilmetilgrupa,

R^{23} ir 4-piridilmetilgrupa;

savienojums (IIa), kurā R^{22} ir 2-metallilgrupa,

R^{23} ir 2-metallilgrupa;

savienojums (IIa), kurā R^{22} ir n-pentilgrupa,

R^{23} ir n-pentilgrupa;

savienojums (IIa), kurā R^{22} ir izooktilgrupa,

R^{23} ir izooktilgrupa;

savienojums (IIa), kurā R^{22} ir izoheptilgrupa,

R^{23} ir izoheptilgrupa;

savienojums (IIa), kurā R^{22} ir izoheksilgrupa,

R^{23} ir izoheksilgrupa;

savienojums (IIa), kurā R^{22} ir izobutilgrupa,

R^{23} ir izobutilgrupa;

savienojums (IIa), kurā R^{22} ir 3-propargilgrupa,

R^{23} ir 3-propargilgrupa;

savienojums (IIa), kurā R^{22} ir benzilgrupa,

R^{23} ir benzilgrupa;

savienojums (IIa), kurā R^{22} ir 2-piridilmetilgrupa,

R^{23} ir 2-piridilmetilgrupa;

savienojums (IIa), kurā R^{22} ir fenilpropilgrupa,

R^{23} ir fenilpropilgrupa;

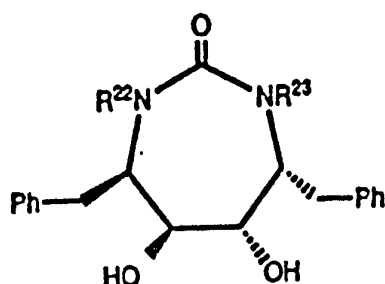
savienojums (IIa), kurā R^{22} ir allilgrupa,

R^{23} ir izoprenilgrupa;

savienojums (IIa), kurā R^{22} ir 1-cinnamilgrupa,

R^{23} ir 1-cinnamilgrupa.

6. Savienojums pēc punkta 1 ar formulu (IIa)



(IIa)

kurš ņemts no grupas:

savienojums (IIa), kurā R^{22} ir allilgrupa, R^{23} ir allilgrupa;

savienojums (IIa), kurā R^{22} ir propilgrupa, R^{23} ir propilgrupa;

savienojums (IIa), kurā R^{22} ir ciklopropilmetilgrupa,

R^{23} ir ciklopropilmetilgrupa;

savienojums (IIa), kurā R^{22} ir n-heksilgrupa,

R^{23} ir n-heksilgrupa;

savienojums (IIa), kurā R^{22} ir n-butilgrupa, R^{23} ir n-butilgrupa;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$,

R^{23} ir $-\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}_2\text{CH}(\text{CH}_3)_2$, R^{23} ir H;

savienojums (IIa), kurā R^{22} ir izopentilgrupa,

R^{23} ir izopentilgrupa;

savienojums (IIa), kurā R^{22} ir 2-metallilgrupa,

R^{23} ir 2-metallilgrupa;

savienojums (IIa), kurā R^{22} ir n-pentilgrupa,

R^{23} ir n-pentilgrupa;

savienojums (IIa), kurā R^{22} ir izoheksilgrupa,

R^{23} ir izoheksilgrupa;

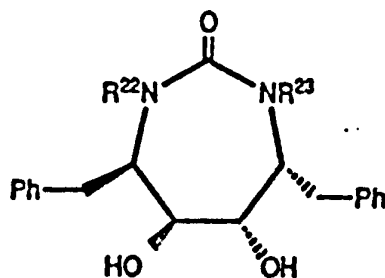
savienojums (IIa), kurā R^{22} ir 1-cinnamilgrupa,

R^{23} ir i-cinnamilgrupa;

savienojums (IIa), kurā R^{22} ir benzilgrupa, R^{23} ir benzilgrupa;

savienojums (IIa), kurā R^{22} ir allilgrupa, R^{23} ir izoprenilgrupa.

7. Savienojums pēc punkta 1 ar formulu (IIa)



(IIa)

kas ņemts no grupas:

savienojums (IIa), kurā R^{22} ir allilgrupa, R^{23} ir allilgrupa;

savienojums (IIa), kurā R^{22} ir ciklopropilmetilgrupa,

R^{23} ir ciklopropilmetilgrupa;

savienojums (IIa), kurā R^{22} ir n-butilgrupa, R^{23} ir n-butilgrupa;

savienojums (IIa), kurā R^{22} ir $-\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$,

R^{23} ir $-\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$;

savienojums (IIa), kurā R^{22} ir propilgrupa, R^{23} ir propilgrupa;

savienojums (IIa), kurā R^{22} ir izopentilgrupa,

R^{23} ir izopentilgrupa;

savienojums (IIa), kurā R^{22} ir benzilgrupa, R^{23} ir benzilgrupa.

8. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski efektīvu daudzumu savienojuma pēc punkta 1.

9. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski efektīvu daudzumu savienojuma pēc punkta 2.

10. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski efektīvu daudzumu savienojuma pēc punkta 3.

11. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski efektīvu daudzumu savienojuma pēc punkta 4.

12. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski efektīvu daudzumu savienojuma pēc punkta 5.

13. Panēmiens vīrusu infekcijas ārstēšanai,

kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski

efektīvu daudzumu savienojuma pēc punkta 6.

14. Panēmiens vīrusu infekcijas ārstēšanai,
kas a t š ķ i r a s ar to, ka inficētajam ievada farmaceitiski
efektīvu daudzumu savienojuma pēc punkta 7.

15. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 1

16. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 2

17. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 3

18. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 4

19. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 5

20. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 6

21. Farmaceutiskā kompozīcija, kas satur farmaceitiski pieņema-
mu nesēju un farmaceitiski efektīvu daudzumu savienojuma pēc punkta 7

TITLE

5 Substituted Cyclic Carbonyls and Derivatives Thereof
 Useful as Retroviral Protease Inhibitors

FIELD OF THE INVENTION

10 This invention relates to substituted cyclic
 carbonyls and derivatives thereof useful as retroviral
 protease inhibitors, to pharmaceutical compositions
 comprising such compounds, and to methods of using these
 compounds for treating viral infection.

15 BACKGROUND OF THE INVENTION

 Current treatments for viral diseases usually
 involve administration of compounds that inhibit viral
 DNA synthesis. Current treatments for AIDS (Dagani,
20 *Chem. Eng. News*, November 23, 1987 pp. 41-49) involve
 administration of compounds such as 2',3'-
 dideoxycytidine, trisodium phosphonoformate, ammonium
 21-tungsto-9-antimoniate, 1-b-D-ribofuranoxyl-1,2,4-
 triazole-3-carboxamide, 3'-azido-3'-deoxythymidine
25 (AZT), and adriamycin that inhibit viral DNA synthesis;
 compounds such as AL-721 and polymannoacetate which may
 prevent HIV from penetrating the host cell; and
 compounds which treat the opportunistic infections
 caused by the immunosuppression resulting from HIV
30 infection. None of the current AIDS treatments have
 proven to be totally effective in treating and/or
 reversing the disease. In addition, many of the
 compounds currently used to treat AIDS cause adverse
 side effects including low platelet count, renal
35 toxicity, and bone marrow cytopenia.

Proteases are enzymes which cleave proteins at specific peptide bonds. Many biological functions are controlled or mediated by proteases and their complementary protease inhibitors. For example, the
5 protease renin cleaves the peptide angiotensinogen to produce the peptide angiotensin I. Angiotensin I is further cleaved by the protease angiotensin converting enzyme (ACE) to form the hypotensive peptide angiotensin II. Inhibitors of renin and ACE are known to reduce
10 high blood pressure *in vivo*. However, no therapeutically useful renin protease inhibitors have been developed, due to problems of oral availability and *in vivo* stability.

The genomes of retroviruses encode a protease that
15 is responsible for the proteolytic processing of one or more polyprotein precursors such as the pol and gag gene products. See Wellink, *Arch. Virol.* 98 1 (1988). Retroviral proteases most commonly process the gag precursor into the core proteins, and also process the
20 pol precursor into reverse transcriptase and retroviral protease.

The correct processing of the precursor polyproteins by the retroviral protease is necessary for the assembly of the infectious virions. It has been
25 shown that *in vitro* mutagenesis that produces protease-defective virus leads to the production of immature core forms which lack infectivity. See Crawford, *J. Virol.* 53 899 (1985); Katoh et al., *Virology* 145 280 (1985). Therefore, retroviral protease inhibition provides an
30 attractive target for antiviral therapy. See Mitsuya, *Nature* 325 775 (1987).

Moore, *Biochem. Biophys. Res. Commun.*, 159 420 (1989) discloses peptidyl inhibitors of HIV protease. Erickson, European Patent Application No. WO 89/10752

discloses derivatives of peptides which are inhibitors of HIV protease.

U.S. Patent No. 4,652,552 discloses methyl ketone derivatives of tetrapeptides as inhibitors of viral proteases. U.S. Patent No. 4,644,055 discloses halomethyl derivatives of peptides as inhibitors of viral proteases. European Patent Application No. WO 87/07836 discloses L-glutamic acid gamma-monohydroxamate as an antiviral agent.

10 The ability to inhibit a viral protease provides a method for blocking viral replication and therefore a treatment for viral diseases, such as AIDS, that may have fewer side effects, be more efficacious, and be less prone to drug resistance when compared to current
15 treatments.

 The topic of the present invention is substituted cyclic carbonyls and derivatives thereof, which compounds are capable of inhibiting viral protease and which compounds are believed to serve as a means of
20 combating viral diseases, such as AIDS. The substituted cyclic carbonyls and derivatives thereof of this invention provide significant improvements over protease inhibitors that are known in the art. A large number of compounds have been reported to be inhibitors of
25 proteases, such as renin, but these have suffered from lack of adequate bioavailability and are thus not useful as therapeutic agents, particularly if oral administration is desired. This poor activity has been ascribed to the relatively high molecular weight of most
30 protease inhibitors, to inadequate solubility properties, and to the presence of a number of peptide bonds, which are vulnerable to cleavage by mammalian proteases in vivo and which generally cause the molecules to be extensively bound in human serum. The
35 substituted cyclic carbonyls and derivatives described

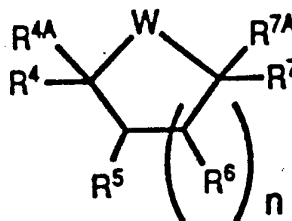
herein have a distinct advantage in this regard, in that they do not contain peptide bonds, are of low molecular weight, and can be hydrophilic yet still inhibit the viral protease enzyme.

5 Additionally, known inhibitors of other non-HIV proteases do not inhibit HIV protease. The structure-activity requirements of such inhibitors differ from those of HIV protease inhibitors. The substituted cyclic carbonyls and derivatives of the invention are particularly useful as inhibitors of HIV protease and
10 similar retroviral proteases.

Other HIV protease inhibitors have been reported, but to date none have been shown to be clinically effective. This lack of utility is due in part to the
15 factors discussed above for renin inhibitors, particularly low bioavailability. The compounds of the invention offer a valuable solution to this problem in that they are of low molecular weight are therefore expected have good oral absorption properties in
20 mammals.

DETAILED DESCRIPTION OF THE INVENTION

There is provided by this invention a compound of
25 the formula (I):



(I)

30 or a pharmaceutically acceptable salt or prodrug form thereof wherein:

R⁴ and R⁷ are independently selected from the following groups:

- hydrogen;
- 5 C₁-C₈ alkyl substituted with 0-3 R¹¹;
- C₂-C₈ alkenyl substituted with 0-3 R¹¹;
- C₂-C₈ alkynyl substituted with 0-3 R¹¹;
- C₃-C₈ cycloalkyl substituted with 0-3 R¹¹;
- C₆-C₁₀ bicycloalkyl substituted with 0-3 R¹¹;
- 10 aryl substituted with 0-3 R¹²;
- a C₆-C₁₄ carbocyclic residue substituted with 0-3 R¹²;
- a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least
- 15 one nitrogen, oxygen or sulfur atom;

R^{4A} and R^{7A} are independently selected from the following groups:

- 20 hydrogen;
- C₁-C₄ alkyl substituted with halogen or C₁-C₂ alkoxy;
- benzyl substituted with halogen or C₁-C₂ alkoxy;
- 25 R⁴ and R^{4A} can alternatively join to form a 5-7 membered carbocyclic ring substituted with 0-2 R¹²;
- R⁷ and R^{7A} can alternatively join to form a 5-7 membered
- 30 carbocyclic ring substituted with 0-2 R¹²;

n is 0, 1, or 2;

R⁵ is selected from fluoro, difluoro, =O, C₁-C₃ alkyl or

35 -OR²⁰;

R⁶, when n is 1, is selected from: hydrogen, =O, fluoro, difluoro, C₁-C₃ alkyl or -OR²¹;

- 5 R⁶, when n is 2, is independently selected from: hydrogen, =O, fluoro, difluoro, C₁-C₃ alkyl or -OR²¹;

R⁵ and R⁶ can alternatively join to form an epoxide ring;

10

R²⁰ and R²¹ are independently selected from:

hydrogen;

C₁-C₆ alkyl substituted with 0-3 R¹¹;

- 15 C₃-C₆ alkoxyalkyl substituted with 0-3 R¹¹;

C₁-C₆ alkylcarbonyl substituted with 0-3 R¹¹;

C₁-C₆ alkoxycarbonyl substituted with 0-3 R¹¹;

benzoyl substituted with 0-3 R¹²;

phenoxycarbonyl substituted with 0-3 R¹²;

- 20 phenylaminocarbonyl substituted with 0-3 R¹²; or

any group that, when administered to a mammalian subject, cleaves to form a free hydroxyl;

R¹¹ is selected from one or more of the following:

25

keto, halogen, cyano, -NR¹³R¹⁴, -CO₂R¹³,

-OC(=O)R¹³, -OR¹³, C₂-C₆ alkoxyalkyl, -S(O)_mR¹³,

-NHC(=NH)NHR¹³, -C(=NH)NHR¹³, -C(=O)NR¹³R¹⁴,

-NR¹⁴C(=O)R¹³, =NOR¹⁴, -NR¹⁴C(=O)OR¹⁴,

- 30 -OC(=O)NR¹³R¹⁴, -NR¹³C(=O)NR¹³R¹⁴, -NR¹⁴SO₂NR¹³R¹⁴,

-NR¹⁴SO₂R¹³, -SO₂NR¹³R¹⁴, C₁-C₄ alkyl, C₂-C₄

alkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl;

1-3 amino acids, linked together via amide bonds and linked to R⁴ or R⁷ via the amine or carboxylate terminus;

5 a C₅-C₁₄ carbocyclic residue substituted with 0-3 R¹²;

aryl substituted with 0-3 R¹²; or

10 a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least one nitrogen, oxygen or sulfur atom;

15 R¹², when a substituent on carbon, is selected from one or more of the following:

phenyl, benzyl, phenethyl, phenoxy, benzyloxy, halogen, hydroxy, nitro, cyano, C₁-C₄ alkyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl, C₇-C₁₀ arylalkyl, C₁-C₄ alkoxy, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄ hydroxyalkyl, methylenedioxy, ethylenedioxy, C₁-C₄ haloalkyl, C₁-C₄ haloalkoxy, C₁-C₄ alkoxy carbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl, C₁-C₄ alkylcarbonylamino, -S(O)_mR¹³, -SO₂NR¹³R¹⁴,
25 -NHSO₂R¹⁴, -OCH₂CO₂H, 2-(1-morpholino)ethoxy; or

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;
30

or R¹² may be a 3- or 4- carbon chain attached to adjacent carbons on the ring to form a fused 5- or 6-membered ring, said 5- or 6- membered ring being

optionally substituted on the aliphatic carbons with halogen, C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, or -NR¹³R¹⁴; or, when R¹² is attached to a saturated carbon atom, it may be carbonyl or thiocarbonyl;

5

R¹², when a substituent on nitrogen, is selected from one or more of the following:

phenyl, benzyl, phenethyl, hydroxy, C₁-C₄
 10 hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, C₃-C₆
 cycloalkyl, C₃-C₆ cycloalkylmethyl, -NR¹³R¹⁴, C₂-C₆
 alkoxyalkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxycarbonyl,
 C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl;

15 R¹³ is H, phenyl, benzyl or C₁-C₆ alkyl;

R¹⁴ is H or C₁-C₄ alkyl;

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-,
 20 -(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

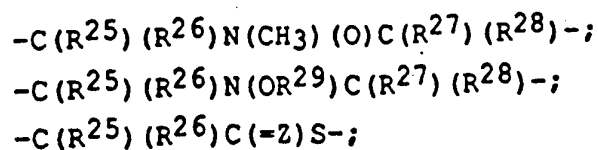
R¹⁵ is H or CH₃;

m is 0, 1 or 2;

25

W is selected from:

-N(R²²)C(=Z)N(R²³)-;
 -N(R²²)S(=O)N(R²³)-;
 -OC(=Z)O-;
 30 -N(R²²)C(=Z)O-;
 -C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
 -N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
 -C(R²⁵)(R²⁶)C(=Z)O-;
 -N(R²²)C(=O)C(=O)N(R²³)-;
 35 -C(R²⁵)(R²⁶)C(F₂)C(R²⁷)(R²⁸)-;



5 wherein:

Z is O, S, or NR^{24} ;

10 R^{22} and R^{23} are independently selected from the following:

hydrogen;

C₁-C₈ alkyl substituted with 0-3 R^{11} ;

C₂-C₈ alkenyl substituted with 0-3 R^{11} ;

15 C₂-C₈ alkynyl substituted with 0-3 R^{11} ;

C₃-C₈ cycloalkyl substituted with 0-3 R^{11} ;

C₆-C₁₀ bicycloalkyl substituted with 0-3 R^{11} ;

aryl substituted with 0-3 R^{12} ;

20 a C₆-C₁₄ carbocyclic residue substituted with 0-3 R^{12} ;

a heterocyclic ring system substituted with 0-2 R^{12} , composed of 5 to 10 atoms including at least one nitrogen, oxygen or sulfur atom;

25 R^{24} is selected from: hydroxy; amino; C₁-C₄ alkyl; C₁-C₄ alkoxy; C₁-C₄ aminoalkyl;

R^{25} and R^{27} are independently selected from the following:

30

hydrogen;

C₁-C₈ alkyl substituted with 0-3 R^{11} ;

C₂-C₈ alkenyl substituted with 0-3 R^{11} ;

C₂-C₈ alkynyl substituted with 0-3 R^{11} ;

35 C₃-C₈ cycloalkyl substituted with 0-3 R^{11} ;

C₆-C₁₀ bicycloalkyl substituted with 0-3 R¹¹;
 aryl substituted with 0-3 R¹²;
 a C₆-C₁₄ carbocyclic residue substituted with 0-3
 R¹²;
 5 a heterocyclic ring system substituted with 0-2
 R¹², composed of 5 to 10 atoms including at least
 one nitrogen, oxygen or sulfur atom;

R²⁶ and R²⁸ are independently selected from:

10

hydrogen;
 C₁-C₄ alkyl substituted with halogen or C₁-C₂
 alkoxy;
 benzyl substituted with halogen or C₁-C₂ alkoxy;

15

R²⁹ is selected from:

20

hydrogen;
 C₁-C₄ alkyl substituted with halogen or C₁-C₂
 alkoxy;
 benzyl substituted with halogen or C₁-C₂ alkoxy;

alternatively, R²², R²⁵, or R²⁶, independently, can join
 25 with R⁴ or R^{4A} to form a five- or six-membered fused
 heterocyclic, aromatic, or alicyclic ring substituted
 with 0-2 R¹²; and

alternatively, R²³, R²⁷, or R²⁸, independently, can join
 30 with R⁷ or R^{7A} to form a five- or six-membered fused
 heterocyclic, aromatic, or alicyclic ring substituted
 with 0-2 R¹²;

provided that:

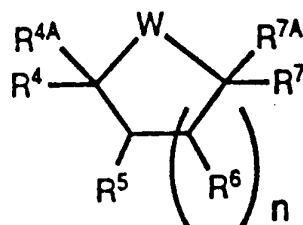
35

when R^4 is hydrogen, R^7 is not hydrogen;

when W is $-\text{OC}(=\text{Z})\text{O}-$, R^4 and R^7 are not hydrogen;

- 5 when R^4 is hydrogen, at least one of the following
is not hydrogen: R^{22} , R^{23} , R^{25} , R^{26} , R^{27} and R^{28} .

Preferred compounds of this invention are compounds
10 of the formula (I):



(I)

- 15 or a pharmaceutically acceptable salt or prodrug form
thereof wherein:

R^4 and R^7 are independently selected from the following
groups:

20

hydrogen;

$\text{C}_1\text{-C}_4$ alkyl substituted with 0-3 R^{11} ;

$\text{C}_3\text{-C}_4$ alkenyl substituted with 0-3 R^{11} ;

$\text{C}_3\text{-C}_4$ alkynyl substituted with 0-3 R^{11} ;

25

R^{4A} and R^{7A} are hydrogen;

n is 0 or 1;

- 30 R^5 is selected from fluoro, difluoro, $=\text{O}$, or $-\text{OR}^{20}$;

R⁶ is selected from: hydrogen, =O, fluoro, difluoro, or -OR²¹;

R²⁰ and R²¹ are independently selected from:

5

hydrogen;
C₁-C₆ alkylcarbonyl;
C₁-C₆ alkoxy carbonyl;
benzoyl; or

10

any group that, when administered to a mammalian subject, cleaves to form a free hydroxyl;

R¹¹ is selected from one or more of the following:

15

keto, halogen, cyano, -NR¹³R¹⁴, -CO₂R¹³, -OC(=O)R¹³, -OR¹³, C₂-C₄ alkoxyalkyl, -S(O)_mR¹³, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl;

20

a C₅-C₁₄ carbocyclic residue substituted with 0-3 R¹²;

aryl substituted with 0-3 R¹²; or

25

a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least one nitrogen, oxygen or sulfur atom;

30

R¹², when a substituent on carbon, is selected from one or more of the following:

35

phenyl, benzyl, phenethyl, phenoxy, benzyloxy, halogen, hydroxy, nitro, cyano, C₁-C₄ alkyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl, C₇-C₁₀ arylalkyl,

C₁-C₄ alkoxy, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄ hydroxyalkyl, methylenedioxy, ethylenedioxy, C₁-C₄ haloalkyl, C₁-C₄ haloalkoxy, C₁-C₄ alkoxycarbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl, C₁-C₄ alkylcarbonylamino, -S(O)_mR¹³,
5 -SO₂NR¹³R¹⁴, -NHSO₂R¹⁴; or

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;
10

or R¹² may be a 3- or 4- carbon chain attached to adjacent carbons on the ring to form a fused 5- or 6-membered ring, said 5- or 6- membered ring being
15 optionally substituted on the aliphatic carbons with halogen, C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, or -NR¹³R¹⁴; or, when R¹² is attached to a saturated carbon atom, it may be carbonyl or thiocarbonyl;

20 R¹², when a substituent on nitrogen, is selected from one or more of the following:

phenyl, benzyl, phenethyl, hydroxy, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, C₃-C₆
25 cycloalkyl, C₃-C₆ cycloalkylmethyl, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxycarbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl;

R¹³ is H or C₁-C₆ alkyl;
30

R¹⁴ is H, C₁-C₄ alkyl, or benzyl;

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-,
35 -(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

R¹⁵ is H or CH₃;

m is 0, 1 or 2;

5 W is selected from:

10 -N(R²²)C(=Z)N(R²³)-;
 -N(R²²)C(=Z)O-;
 -C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
 -N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
 -C(R²⁵)(R²⁶)C(=Z)O-;
 -N(R²²)C(=O)C(=O)N(R²³)-;
 -C(R²⁵)(R²⁶)C(F₂)C(R²⁷)(R²⁸)-;

15 wherein:

Z is O;

20 R²² and R²³ are independently selected from the following:

25 hydrogen;
 C₁-C₈ alkyl substituted with 0-3 R¹¹;
 C₃-C₈ alkenyl substituted with 0-3 R¹¹;
 C₃-C₈ alkynyl substituted with 0-3 R¹¹;
 C₃-C₆ cycloalkyl substituted with 0-3 R¹¹;

R²⁵ and R²⁷ are independently selected from the following:

30

 hydrogen;
 C₁-C₈ alkyl substituted with 0-3 R¹¹;
 C₂-C₈ alkenyl substituted with 0-3 R¹¹;
 C₃-C₈ alkynyl substituted with 0-3 R¹¹;

35

R²⁶ and R²⁸ are hydrogen;

provided that:

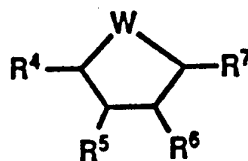
5 when R⁴ is hydrogen, R⁷ is not hydrogen;

 when W is -OC(=Z)O-, R⁴ and R⁷ are not hydrogen;

10 when R⁴ is hydrogen, at least one of the following
 is not hydrogen: R²², R²³, R²⁵, R²⁶, R²⁷ and R²⁸.

Further preferred compounds of the invention of
formula (I) are compounds of formula (II):

15



(II)

20 or a pharmaceutically acceptable salt or prodrug form
 thereof wherein:

R⁴ and R⁷ are independently selected from the following
groups:

25

hydrogen;

C₁-C₄ alkyl substituted with 0-3 R¹¹;

C₃-C₄ alkenyl substituted with 0-3 R¹¹;

30 R⁵ is -OR²⁰;

R⁶ is hydrogen or -OR²¹;

R²⁰ and R²¹ are independently hydrogen or any group that, when administered to a mammalian subject, cleaves to form a free hydroxyl;

5

R¹¹ is selected from one or more of the following:

keto, halogen, -NR¹³R¹⁴, -OR¹³, C₂-C₄ alkoxyalkyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl;

10

aryl substituted with 0-3 R¹²; or

a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least one nitrogen, oxygen or sulfur atom;

15

R¹², when a substituent on carbon, is selected from one or more of the following:

20

phenyl, benzyl, phenethyl, phenoxy, benzyloxy, halogen, C₁-C₄ alkyl, C₇-C₁₀ arylalkyl, C₁-C₄ alkoxy, -NR¹³R¹⁴, methylenedioxy, C₁-C₄ haloalkyl, C₁-C₄ alkylcarbonyl, C₁-C₄ alkylcarbonylamino; or

25

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;

30 R¹², when a substituent on nitrogen, is selected from benzyl or methyl;

R¹³ is H or C₁-C₂ alkyl;

35 R¹⁴ is H or C₁-C₂ alkyl;

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-,
-(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

5 W is selected from:

-N(R²²)C(=Z)N(R²³)-;
-C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
-N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
10 -C(R²⁵)(R²⁶)C(=Z)O-;

wherein:

Z is O;

15

R²² and R²³ are independently selected from the
following:

hydrogen;
20 C₁-C₄ alkyl substituted with 0-3 R¹¹;
C₃-C₄ alkenyl substituted with 0-3 R¹¹;

R²⁵ and R²⁷ are independently selected from the
following:

25

hydrogen;
C₁-C₄ alkyl substituted with 0-3 R¹¹;
C₃-C₄ alkenyl substituted with 0-3 R¹¹;

30 R²⁶ and R²⁸ are hydrogen;

provided that:

when R⁴ is hydrogen, R⁷ is not hydrogen;

35

when R⁴ is hydrogen, at least one of the following is not hydrogen: R²², R²³, R²⁵, R²⁶, R²⁷ and R²⁸.

5 More preferred compounds of the present invention are compounds of the further preferred scope above, wherein:

R⁴ and R⁷ are independently selected from the following
10 groups:

hydrogen;

C₁-C₃ alkyl substituted with 0-1 R¹¹;

15 R⁵ is -OR²⁰;

R⁶ is hydrogen or -OR²¹;

R²⁰ and R²¹ are independently hydrogen or any group
20 that, when administered to a mammalian subject, cleaves to form a free hydroxyl;

R¹¹ is selected from one or more of the following:
25

halogen, -OR¹³, C₁-C₄ alkyl, C₅-C₆ cycloalkyl;

aryl substituted with 0-2 R¹²; or

30 a heterocyclic ring system chosen from pyridyl, pyrimidinyl, triazinyl, furanyl, thienyl, pyrrolyl, pyrazolyl, imidazolyl, tetrazolyl, benzofuranyl, indolyl, quinolinyl, isoquinolinyl;

R¹², when a substituent on carbon, is selected from one or more of the following:

benzyloxy, halogen, methyl, C₁-C₄ alkoxy, CF₃, 2-(1-morpholino)ethoxy; or

R¹², when a substituent on nitrogen, is methyl;

R¹³ is H or methyl;

R¹⁴ is H or methyl;

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-, -(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

W is -N(R²²)C(=O)N(R²³)-;

wherein:

R²² and R²³ are independently selected from the following:

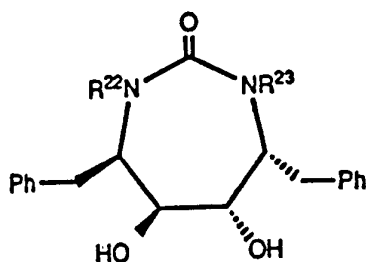
hydrogen;
C₁-C₄ alkyl substituted with 0-1 R¹¹;
C₃-C₄ alkenyl substituted with 0-1 R¹¹;

provided that:

when R⁴ is hydrogen, R⁷ is not hydrogen;

when R⁴ is hydrogen, at least one of the following is not hydrogen: R²² and R²³.

Specifically preferred are compounds of formula (IIa):



(IIa)

5

selected from the group consisting of:

the compound of formula (IIa) wherein R^{22} is H and R^{23} is H;

10

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

the compound of formula (IIa) wherein R^{22} is 3,7-dimethyl-1-octyl and R^{23} is 3,7-dimethyl-1-octyl;

15

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$ and R^{23} is $\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$;

20

the compound of formula (IIa) wherein R^{22} is 3,7-dimethyl-1-octyl and R^{23} is H;

the compound of formula (IIa) wherein R^{22} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$ and R^{23} is H;

25

the compound of formula (IIa) wherein R^{22} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$ and R^{23} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{OH}$ and R^{23} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$;

30

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$ and R^{23} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$;

- 5 the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

the compound of formula (IIa) wherein R^{22} is methyl and R^{23} is methyl;

10

the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

- 15 the compound of formula (IIa) wherein R^{22} is n-hexyl and R^{23} is n-hexyl;

the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

- 20 the compound of formula (IIa) wherein R^{22} is N-morpholinoethyl and R^{23} is N-morpholinoethyl;

the compound of formula (IIa) wherein R^{22} is n-heptyl and R^{23} is n-heptyl;

25

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

- 30 the compound of formula (IIa) wherein R^{22} is ethyl and R^{23} is ethyl;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is H;

the compound of formula (IIa) wherein R^{22} is i-pentyl and R^{23} is i-pentyl;

5 the compound of formula (IIa) wherein R^{22} is 4-pyridylmethyl and R^{23} is 4-pyridylmethyl;

the compound of formula (IIa) wherein R^{22} is 2-methallyl and R^{23} is 2-methallyl;

10 the compound of formula (IIa) wherein R^{22} is n-pentyl and R^{23} is n-pentyl;

the compound of formula (IIa) wherein R^{22} is i-octyl and R^{23} is i-octyl;

15 the compound of formula (IIa) wherein R^{22} is i-hexyl and R^{23} is i-hexyl;

the compound of formula (IIa) wherein R^{22} is i-heptyl and R^{23} is i-heptyl;

the compound of formula (IIa) wherein R^{22} is i-butyl and R^{23} is i-butyl;

25 the compound of formula (IIa) wherein R^{22} is 3-propargyl and R^{23} is 3-propargyl;

the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl;

30 the compound of formula (IIa) wherein R^{22} is 2-pyridylmethyl and R^{23} is 2-pyridylmethyl;

the compound of formula (IIa) wherein R^{22} is phenylpropyl and R^{23} is phenylpropyl;

35

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is isoprenyl;

- 5 the compound of formula (IIa) wherein R^{22} is 1-cinnamyl and R^{23} is 1-cinnamyl.

10 More specifically preferred are the following compounds of formula (I), which have IC_{50} or K_i values of less than about 10 nM for inhibiting HIV protease:

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

15

the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

20 the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

the compound of formula (IIa) wherein R^{22} is n-hexyl and R^{23} is n-hexyl;

- 25 the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

the compound of formula (IIa) wherein R^{22} is $CH_2CH=CH(CH_3)_2$ and R^{23} is $CH_2CH=CH(CH_3)_2$;

30

the compound of formula (IIa) wherein R^{22} is $CH_2CH_2CH(CH_2)_2$ and R^{23} is H;

- 35 the compound of formula (IIa) wherein R^{22} is 2-methallyl and R^{23} is 2-methallyl;

the compound of formula (IIa) wherein R^{22} is n-pentyl and R^{23} is n-pentyl;

5 the compound of formula (IIa) wherein R^{22} is i-hexyl and R^{23} is i-hexyl;

the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl;

10 the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is isoprenyl;

the compound of formula (IIa) wherein R^{22} is 1-cinnamyl and R^{23} is 1-cinnamyl.

15 The following preferred compounds of formula (I) exhibit IC_{90} values of less than about 10 $\mu\text{g/mL}$ for the inhibition of HIV growth:

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

25 the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

30 the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

35

the compound of formula (IIa) wherein R^{22} is i-pentyl and R^{23} is i-pentyl;

- 5 the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl.

In the present invention it has been discovered that the compounds above are useful as inhibitors of HIV
10 protease and similar retroviral proteases, and for the treatment of HIV infection and similar retrovirus infections.

The present invention also provides methods for the treatment of HIV infection by administering to a host
15 infected with HIV a pharmaceutically effective amount of a compound of formula (I) as described above.

The compounds herein described may have asymmetric centers. All chiral, diastereomeric, and racemic forms
20 are included in the present invention. Many geometric isomers of olefins, C=N double bonds, and the like can also be present in the compounds described herein, and all such stable isomers are contemplated in the present invention.

25 When any variable (for example, R^1 through R^{28} , R^{4A} and R^{7A} , m, n, W, Z, etc.) occurs more than one time in any constituent or in formula (I) or (II), or any other formula herein, its definition on each occurrence is independent of its definition at every other occurrence.
30 Also, combinations of substituents and/or variables are permissible only if such combinations result in stable compounds.

As used herein, "alkyl" is intended to include both branched and straight-chain saturated aliphatic
35 hydrocarbon groups having the specified number of carbon

- atoms; "alkoxy" represents an alkyl group of indicated number of carbon atoms attached through an oxygen bridge; "cycloalkyl" is intended to include saturated ring groups, such as cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl and cyclooctyl; and "biycloalkyl" is intended to include saturated bicyclic ring groups such as [3.3.0]bicyclooctane, [4.3.0]bicyclononane, [4.4.0]bicyclodecane (decalin), [2.2.2]bicyclooctane, and so forth. "Alkenyl" is intended to include hydrocarbon chains of either a straight or branched configuration and one or more unsaturated carbon-carbon bonds which may occur in any stable point along the chain, such as ethenyl, propenyl, and the like; and "alkynyl" is intended to include hydrocarbon chains of either a straight or branched configuration and one or more triple carbon-carbon bonds which may occur in any stable point along the chain, such as ethynyl, propynyl and the like. "Halo" as used herein refers to fluoro, chloro, bromo, and iodo; and "counterion" is used to represent a small, negatively charged species such as chloride, bromide, hydroxide, acetate, sulfate, and the like.

- As used herein, "aryl" or "aromatic residue" is intended to mean phenyl or naphthyl; "carbocyclic" is intended to mean any stable 5- to 7- membered monocyclic or bicyclic or 7- to 14-membered bicyclic or tricyclic carbon ring, any of which may be saturated, partially unsaturated, or aromatic, for example, indanyl or tetrahydronaphthyl (tetralin).
- As used herein, the term "heterocycle" is intended to mean a stable 5- to 7- membered monocyclic or bicyclic or 7- to 10-membered bicyclic heterocyclic ring which is either saturated or unsaturated, and which consists of carbon atoms and from 1 to 3 heteroatoms selected from the group consisting of N, O and S and

wherein the nitrogen and sulfur heteroatoms may optionally be oxidized, and the nitrogen may optionally be quaternized, and including any bicyclic group in which any of the above-defined heterocyclic rings is fused to a benzene ring. The heterocyclic ring may be attached to its pendant group at any heteroatom or carbon atom which results in a stable structure. The heterocyclic rings described herein may be substituted on carbon or on a nitrogen atom if the resulting compound is stable. Examples of such heterocycles include, but are not limited to, pyridyl, pyrimidinyl, furanyl, thienyl, pyrrolyl, pyrazolyl, imidazolyl, tetrazolyl, benzofuranyl, benzothiophenyl, indolyl, indolenyl, quinolinyl, isoquinolinyl or benzimidazolyl, piperidinyl, 4-piperidonyl, pyrrolidinyl, 2-pyrrolidonyl, pyrrolinyl, tetrahydrofuranyl, tetrahydroquinolinyl, tetrahydroisoquinolinyl, decahydroquinolinyl or octahydroisoquinolinyl. The term "substituted", as used herein, means that an one or more hydrogen on the designated atom is replaced with a selection from the indicated group, provided that the designated atom's normal valency is not exceeded, and that the substitution results in a stable compound.

By "stable compound" or "stable structure" is meant herein a compound that is sufficiently robust to survive isolation to a useful degree of purity from a reaction mixture, and formulation into an efficacious therapeutic agent.

As used herein, "pharmaceutically acceptable salts and prodrugs" refer to derivatives of the disclosed compounds that are modified by making acid or base salts, or by modifying functional groups present in the compounds in such a way that the modifications are cleaved, either in routine manipulation or *in vivo*, to the parent compounds. Examples include, but are not

limited to, mineral or organic acid salts of basic residues such as amines; alkali or organic salts of acidic residues such as carboxylic acids; acetate, formate and benzoate derivatives of alcohols and amines; and the like.

Pharmaceutically acceptable salts of the compounds of the invention can be prepared by reacting the free acid or base forms of these compounds with a stoichiometric amount of the appropriate base or acid in water or in an organic solvent, or in a mixture of the two; generally, nonaqueous media like ether, ethyl acetate, ethanol, isopropanol, or acetonitrile are preferred. Lists of suitable salts are found in Remington's Pharmaceutical Sciences, 17th ed., Mack Publishing Company, Easton, PA, 1985, p. 1418, the disclosure of which is hereby incorporated by reference.

Synthesis

The compounds of the present invention may be synthesized using the general synthetic procedures described below. Each of the references cited below are hereby incorporated herein by reference.

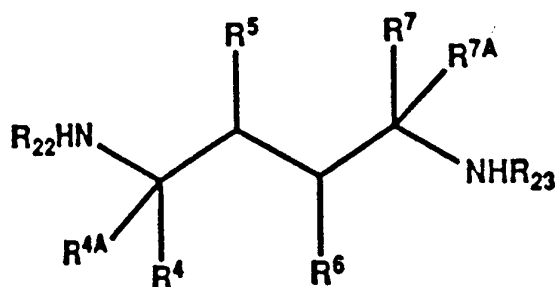
Compounds of the invention wherein:

W is $-N(R^{22})C(=Z)N(R^{23})-$ or $-N(R^{22})C(=O)C(=O)N(R^{23})-$;

R^5 is $-OR^{20}$ or H;

R^6 is $-OR^{21}$ or H; and

n is 1; can be formed from diamines of formula (III):



(III)

5

The diamines of formula (III) can be synthesized as described in copending commonly assigned patent application Jadhav et al. USSN 07/714,042, filed 5/31/91. Alternative methods which can be used to

10 synthesize the compounds of structure (III) above are described in European Patent Application Publication Number 402646A1, U.S. Patent 4,837,204, and Canadian Patent Application 2,026,832 .

15

The compounds of formula (III) can be cyclized to form compounds of formula (IV) under conditions normally used to form cyclic ureas, as is known to one skilled in the art. Reagents $\text{J}-(\text{C}=\text{Z})-\text{J}'$, where J and J' are leaving groups, are employed, preferably under

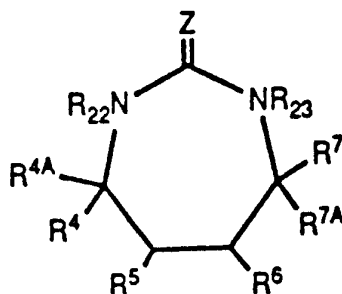
20 relatively dilute conditions (for example, less than about 0.1 M), to effect ring closure to provide compounds of formula (I). Many examples of J and J' are known; preferred are carbonyl diimidazole, thiocarbonyldiimidazole, phosgene, thiophosgene,

25 diphenyl carbonate, or diphenyl thiocarbonate. Additionally, for compounds wherein W is - $\text{N}(\text{R}^{22})\text{C}(=\text{O})\text{C}(=\text{O})\text{N}(\text{R}^{23})-$, compounds of formula (III) can be reacted with activated derivatives of oxalic acid, preferably oxalyl chloride, under the above conditions

30 to form the diamide.

For compounds of the invention where R^{20} or R^{21} is -OH, it is advantageous to protect the free hydroxyl before cyclization. Protecting groups used can include any of those listed in Greene, Protective Groups in Organic Synthesis, Chapter 2, Wiley, NY (1981). The preferred protecting groups are trimethylsilylethoxymethyl (SEM) or methoxymethyl (MOM).

Cyclization of compounds of formula (III) results in structure (IV) (i.e., structure (I) wherein W is - $N(R^{22})C(=O)C(=O)N(R^{23})$ - and n is 1).



15

(IV)

Another, preferred method to form compounds of formula (IV), in cases wherein R^{22} and R^{23} are linked to their respective nitrogens by a CH_2 residue, is to cyclize a compound of structure (III) where R^{22} and R^{23} are hydrogen, and to alkylate the nitrogens using a base and an alkylating agent, using methods well known in the art. The preferred base is sodium hydride, and the preferred alkylating agents are $R^{22}Y$ and $R^{23}Y$, wherein Y is a halogen, triflate, or mesylate, preferably a bromide or iodide. Preferred conditions are in polar aprotic solvents between 0 and 100 °C.

Cleavage of protecting groups, if employed, yields structures of formula (I) wherein R^5 and R^6 are hydroxyl.

When R⁵ and R⁶ are other than OR²⁰ and OR²¹, some chemical manipulation of functional groups may need to be performed in the preparation of the compounds of formula (III) or (IV), as is appreciated by one of skill in the art of organic synthesis. Described below are examples of such procedures.

10 Methods for obtaining compounds wherein R⁵ is OH and R⁶ is OR²¹ include protection of nitrogen, if necessary, followed by reaction of the diol with one equivalent of base and one equivalent of acyl halide, alkyl halide, alkoxyalkyl halide, alkoxycarbonyl halide, benzoyl halide, diphenyl
15 carbonate or phenylisocyanate, and purification by column chromatography of the unwanted bis-alkylated and unreacted material.

20 Methods for obtaining compounds wherein R⁵ is OH and R⁶ is H include protection of nitrogen, if necessary, and reduction of the diol to the monool using techniques known in the art (see, for example, *Chem. Comm.* 1971, 1097; *J. Org. Chem.* 1969, 3923). The preferred method is formation of
25 cyclic diol ester and reduction using hydride. Deprotection of nitrogen, if necessary, results in the desired compound.

30 Methods for obtaining compounds wherein R⁵ is OH and R⁶ is F include protection of nitrogen, if necessary, followed by formation of mono-protected diol as described above. Reaction with a fluorinating agent, preferably
35 diethylaminosulfurtrifluoride (DAST) (Reagents for Organic Synthesis, Vol. 13, p. 110, Wiley

Interscience, NY, 1988), provides the alkyl fluoride. Deprotection of nitrogen, if necessary, and hydroxyl results in the desired compound.

5 Methods for obtaining compounds wherein R^5 is OH and R^6 is =O include protection of nitrogen, if necessary, and standard conditions for oxidizing glycols to pinacols. The preferred oxidant is one equivalent of pyridinium dichromate in
10 dichloromethane, or one equivalent of NaOCl in HOAc. Deprotection of nitrogen, if necessary, results in the desired compound. Alternatively, a monohydroxy compound described above can be
15 oxidized to the ketone under standard conditions, preferably Swern oxidation using oxalyl chloride, DMSO and Et₃N, followed by alpha-hydroxylation of the ketone (see Tet. Lett. 1981, 607; Tet. Lett. 1982, 2917).

20 Methods for obtaining compounds wherein R^5 is OH and R^6 is difluoro include protection of nitrogen, if necessary, and hydroxyl of the above obtained pinacol, followed by reaction of the carbonyl with a fluorinating reagent, such as DAST. Deprotection
25 of hydroxyl and nitrogen, if necessary, results in the desired compound.

30 Methods for obtaining compounds wherein R^5 and R^6 join to form an epoxide include protection of nitrogen, if necessary, followed by standard conditions for the formation of an epoxide from a glycol (see, for example, J. Org. Chem. 1981, 3361). Preferred is the reaction of the glycol
35 with more than 2 equivalents of base and one equivalent of an activating group, such as

methanesulfonyl chloride. Deprotection if necessary results in the desired compound.

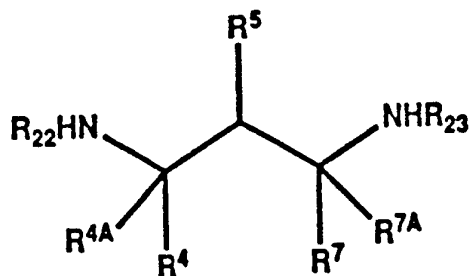
5 Methods for obtaining compounds wherein R^5 is OH and R^6 is C₁-C₃ alkyl include protection of nitrogen, if necessary, and reaction of the epoxide prepared above with C₁-C₃ alkylmetal reagents. Preferred is the reaction of lithium dialkyl cuprates in aprotic solvents at low temperatures (-10 78 to -40 °C) (see Carruthers, Some Modern Methods in Organic Synthesis, p. 64, Cambridge University Press, 1978).

15 With a judicious selection of reagents, as is well appreciated to one skilled in the art, these manipulations can be performed in a straightforward manner to yield the claimed combinations of R^5 and R^6 .

20 Compounds of the invention wherein:

W is $-N(R^{22})C(=Z)N(R^{23})-$ or $-N(R^{22})C(=O)C(=O)N(R^{23})-$, and n is 0;

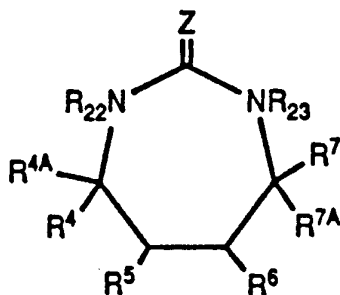
25 can be synthesized from diamines of formula (V):



(V)

which can in turn be synthesized as described in European Patent Application Publication Number 402 646 A1.

- 5 Protection, if necessary, cyclization, and functional group manipulation if desired is performed as described above to obtain compounds of structure (VI):



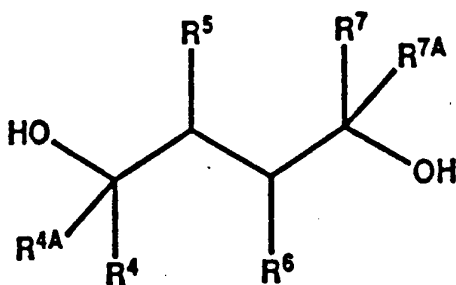
10

(VI)

Compounds of the invention wherein:

- 15 W is $-\text{OC}(=\text{O})\text{O}-$ and n is 1;

can be formed from diols of structure (VII):



20

(VII)

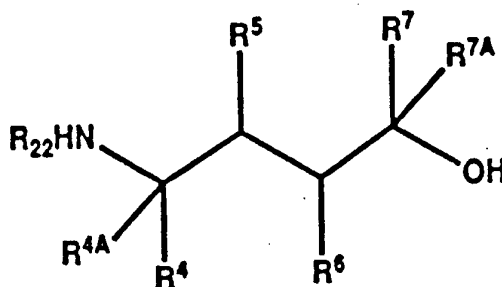
- which can in turn be synthesized as described in copending, commonly assigned U.S. patent application
25 Jadhav et al. USSN 07/714,042, filed 5/31/91.

Functional group manipulation, if desired, may be performed as described above, followed by cyclization to the carbonate using standard conditions, preferably phosgene or thiophosgene in the presence of 2 equivalents of a base such as potassium hydride, to obtain compounds of structure (I).

Compounds of the invention wherein:

W is $-N(R^{22})C(=Z)O-$ and n is 1;

can be formed from aminoalcohol of structure (VIII):



(VIII)

which can in turn be synthesized as described in a copending, commonly assigned U.S. patent application Jadhav et al. USSN 07/714,042, filed 5/31/91, by employing a single equivalent of azide in the reaction of the diol of formula (VII) to obtain the azidoalcohol, followed by reduction as described in USSN 07/714,042, to form the aminoalcohol.

Protection, if necessary, and functional group manipulation, if desired, is performed as described above, followed by cyclization to the carbamate using standard conditions, preferably phosgene or thiophosgene

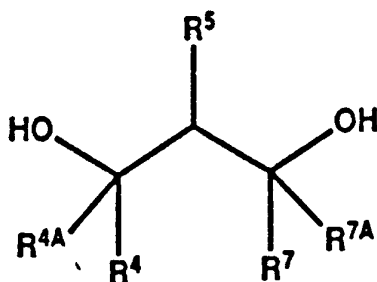
in the presence of 2 equivalents of a base, such as potassium hydride, to obtain compounds of structure (I).

5 Compounds of the invention wherein:

W is $-\text{OC}(=\text{Z})\text{O}-$ and n is 0;

can be formed from the diol of structure (IX):

10



(IX)

- 15 which can in turn be synthesized by the reaction of R^4CHO with the lithium anion of 1,3 dithiane, followed by the reaction of R^7CHO with the anion of the product (see Carruthers, Some Modern Methods in Organic Synthesis, p. 45, Cambridge University Press, 1978).
- 20 Cleavage of the dithiane with mercuric ion yields the acyclic alpha, alpha' dihydroxyketone.

- Functional group manipulation, if desired, is performed as described above, followed by cyclization to
- 25 the carbonate using standard conditions, preferably phosgene or thiophosgene, in the presence of 2 equivalents of a base such as potassium hydride, to obtain compounds of structure (I).

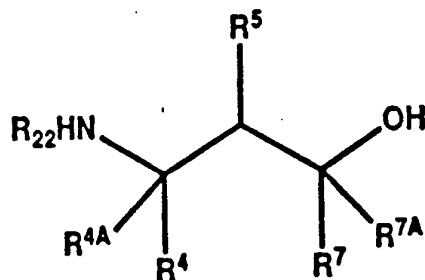
30

Compounds of the invention wherein:

W is $-N(R^{22})C(=Z)O-$ and n is 0;

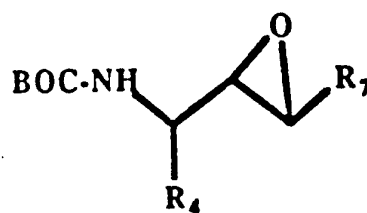
can be formed from aminoalcohol of structure (X):

5



(X)

- 10 which can in turn be synthesized by the techniques described in European Patent Application Publication Number 402 646 A1 for the synthesis of compounds of structure (V), above; however, in place of azide, in opening the oxirane (shown below), an oxygen
- 15 nucleophile, such as acetate or hydroxide ion, is reacted in the presence of a polar aprotic solvent, such as DMSO.



20

Alternatively, the oxirane is treated with a catalytic amount of a strong acid in water and a cosolvent, if necessary, which technique also removes the BOC protecting group.

25

Protection, if necessary, and functional group manipulation, if desired, is performed as described

above, followed by cyclization to the carbamate using standard conditions, preferably phosgene or thiophosgene in the presence of 2 equivalents of a base such as potassium hydride, to obtain compounds of structure (I).

5

Compounds of the present invention wherein:

W is $-C(R^{25})(R^{26})N(CH_3)(O)C(R^{27})(R^{28})-$;

10

can be synthesized from aminoalcohols (VIII) and (X) by the following steps: protection of nitrogen, if necessary, preferably with a benzyloxycarbonyl group; activation of the alcohol to displacement, preferably with a sulfonate derivative, such as mesyl chloride; removal of the nitrogen protecting group, preferably with hydrogen in the presence of a catalyst, such as palladium on carbon; and heating under dilute conditions in the presence of a base such as triethylamine to effect cyclization.

20

The secondary cyclic amine is then methylated, preferably with formic acid/formaldehyde, and oxidized, preferably with a peracid, such as MCPBA, to form compounds of formula (I), wherein W is $-C(R^{25})(R^{26})N(CH_3)(O)C(R^{27})(R^{28})-$. The secondary cyclic amine can alternatively be directly oxidized to form structure (I), where W is $-C(R^{25})(R^{26})N(OR^{29})C(R^{27})(R^{28})-$.

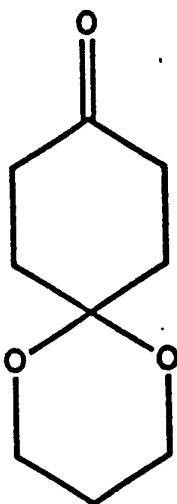
30

Compounds wherein:

W is $-C(R^{25})(R^{26})C(=Z)C(R^{27})(R^{28})-$ and n is 0;

35

can be prepared by the alkylation of protected
 cyclohexanedione (XI) with the required R^4 -LG and R^7 -LG,
 and optionally R^{4A} -LG and R^{7A} -LG groups, wherein LG
 represents a leaving group such as halogen or sulfonate
 5 ester.



(XI)

10

Reduction of the ketone to the alcohol, preferably
 with LiAlH_4 , or manipulation to other values of R^5 as
 described above, is followed by cleavage of the ketal
 (see Greene, Protective Groups in Organic Synthesis,
 15 Chapter 2, Wiley, NY, 1981). Protection of the alcohol
 or other reactive groups, followed by alkylation ketone
 and deprotection, provides compounds of structure (I),
 wherein W is
 $-\text{C}(\text{R}^{25})(\text{R}^{26})\text{C}(=\text{Z})\text{C}(\text{R}^{27})(\text{R}^{28})-$ and n is 0.

20

Compounds wherein:

W is $-\text{C}(\text{R}^{25})(\text{R}^{26})\text{C}(=\text{Z})\text{C}(\text{R}^{27})(\text{R}^{28})-$ and n is 1;

25

can be prepared from the protected hydroxyketones described immediately above by ring expansion, for example via the Tiffeneau-Demyanov reaction (March, Advanced Organic Chemistry, p. 965, Wiley, NY, 1985), or
 5 by treatment with dimethylsulfonium ylide to form the spiro-epoxide, followed by acid-catalyzed ring expansion to the cycloheptanone (ibid., pp. 871, 966).

The above routes have the advantage of producing a
 10 number of stereoisomers which, upon purification, can be evaluated for the best combination of potency, safety and in vivo availability.

15 Compounds wherein:

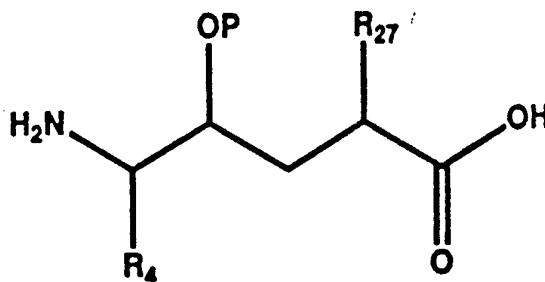
W is $-C(R^{25})(R^{26})C(F_2)C(R^{27})(R^{28})-$ and
 n is 0 or 1;

20 can be obtained from the above-described protected hydroxyketone by treatment with a fluorinating reagent, preferably DAST, as described above.

25 Compounds wherein:

W is $-N(R^{22})C(=Z)C(R^{27})(R^{28})-$ and n is 0;

can be obtained by cyclization of compound (XII) to the
 30 lactam using techniques known in the art (March, Advanced Organic Chemistry, p. 371, Wiley, NY, 1985).



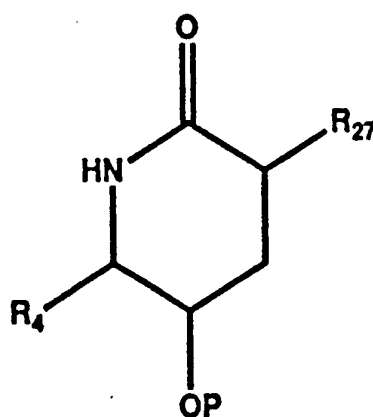
(XII)

5

Compounds of structure (XII) can in turn be obtained as described in European Patent Application Publication Number 434 365 A2, European Patent Application Publication Number 386 611 A2, European Patent Application Publication Number 389 127 A1, and CA 2005337, each of which are hereby incorporated by reference. OP in structure (XII) designates protected oxygen. Hydroxyl can be protected by the use of any of a number of groups as described in Greene, Protective Groups in Organic Synthesis, Chapter 2, Wiley, NY (1981).

10
15

If desired, the resulting lactam (XIII):



20

(XIII)

can be further functionalized, for example by the following techniques: the lactam nitrogen can be alkylated with an R^{22} -LG group, preferably employing sodium hydride in DMF; an R^{4A} , R^7 or R^{7A} group can be added by deprotection and oxidation of the alcohol, followed by alkylation of the enolate using R^{4A} -LG, R^7 -LG or R^{7A} -LG; and reduction of the ketone to hydroxyl or otherwise functionalizing to obtain the R^5 group of choice as described above.

10

Compounds wherein:

W is $-N(R^{22})C(=Z)C(R^{27})(R^{28})-$ and n is 1;

15

can be obtained through techniques known in the art from ketones of structure (I) wherein W is $-C(R^{25})(R^{26})C(=Z)C(R^{27})(R^{28})-$ and n is 0, preferably via the Beckmann rearrangement (March, Advanced Organic Chemistry, p. 987, Wiley, NY, 1985). Manipulation of the R^5 group, if desired, as described above provides R^5 and R^6 -substituted examples of (I), wherein W = $-N(R^{22})C(=Z)C(R^{27})(R^{28})-$ and n = 1.

20

Compounds wherein:

W is $-C(R^{25})(R^{26})C(=Z)O-$ and n is 0 or 1;

25

can be obtained from compounds of structure (I), wherein W = $-N(R^{22})C(=Z)C(R^{27})(R^{28})-$, n = 0 or 1, and $R^{22} = H$, for example, by hydrolysis of the lactam, followed by displacement of the primary amine by hydroxyl, and closure to the lactone (March, Advanced Organic Chemistry, p. 348, Wiley, NY, 1985).

30

35

Similarly, compounds wherein:

W is $-C(R^{25})(R^{26})C(=Z)S-$ and n is 0 or 1;

5 can be obtained from compounds of structure (I), wherein
W = $-N(R^{22})C(=Z)C(R^{27})(R^{28})-$, n = 0 or 1, and $R^{22} = H$,
for example, by hydrolysis of the lactam, followed by
conversion of the primary amine to the diazonium salt,
displacement by NaSH, and closure to the thiolactone
10 (March, Advanced Organic Chemistry, p. 601, Wiley, NY,
1985).

Compounds of structure (I) described above wherein
Z = O can be converted to the thio derivatives, Z = S,
15 using standard conditions (March, Advanced Organic
Chemistry, p. 792, Wiley, NY, 1985); preferred is the
use of the disulfide described in Bull. Soc. Chim.
Belges 1978, 223.

20 Structures (I) described above wherein Z = O can be
converted to the imino derivatives, Z = NR^{24} , using
standard conditions. When R^{24} is OH or O-alkyl, the
oximes can be formed and alkylated if desired as
described in March, Advanced Organic Chemistry, pp. 359,
25 805, Wiley, NY, 1985. The hydrazones and imines can be
formed similarly (*ibid*, pp. 533, 797).

It is expected that the compounds of the invention can
also be prepared as shown in Scheme 1 (shown below). The
30 intra-molecular coupling of the N-substituted or
unsubstituted dialdehydes may be achieved by organometal
reagents derived from vanadium, titanium, samarium etc. The
dialdehyde precursors can be prepared from the commercially
available materials by the methods known to those skilled in
35 the art of organic synthesis, preferably by the techniques

disclosed in copending commonly assigned U.S. Patent Application, Hodge, USSN 07/659,442, filed 2/21/91.

Compounds wherein W is $-N(R^{22})C(=O)N(R^{23})-$ and n is 2 can be synthesized as shown in Scheme 2 (below). The eight-membered cyclic urea in Scheme 2 can be protected, if necessary, and manipulated as described above to yield the desired compounds.

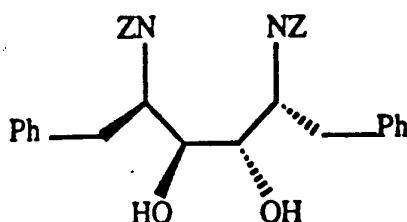
10

The synthesis of compounds of the invention is described in further detail below.

Procedure 1

15

Preparation of di-N-CBZ protected 1,4-diamino-2,3-diols (XIX):



(XIX)

20

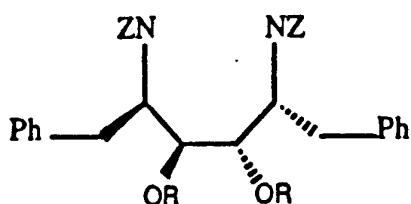
Detailed experimental procedures for the synthesis of compound (XIX) are described in copending commonly assigned patent application Jadhav et al. USSN 07/714,042, filed 5/31/91.

25

Procedure 2

Preparation of di-O protected di-N-CBZ 1,4-diamino diols (XXa) and (XXb):

30



(XXb) R=MOM

5

A. Protection as 2-(trimethylsilyl) ethoxy methyl (SEM) ether (XXa):

Compound (XIX) (60 g, .105 mmol) was dissolved in
10 dry dimethoxyethane (600 mL). Diisopropylethylamine (75
mL) and SEMCl (66.8 g, 400mmol) were added and the
mixture stirred for 16 h at room temperature under N₂.
The solution was diluted with water (1L) and extracted
with hexane (400mL). The organic layer was separated and
15 washed with water (2x100mL). The aqueous layers were
combined and extracted with hexane (2x300mL). The
organic layers were combined, washed with water
(2x100mL), dried over MgSO₄, filtered and evaporated. The
residue was chromatographed on SiO₂ and eluted with 10-
20 30% ethyl acetate/hexane to afford a white solid
(91g, 100%). NMR(CDCl₃): δ 7.0-7.4 (m, 20H, Ph), 5.01 (br
s, 4H, PhCH₂CO), 4.5-4.95 (m, 6H, NH, OCH₂O), 3.6-4.25
(m, 4H, CHOCH₂, CHNH), 3.5 (s, 4H, OCH₂CH₂), 2.76 (br d,
4H, PhCH₂), 0.8-1.0 (m, 4H, SiCH₂). MS: 846 (M+NH₄, 100),
25 695 (M-SEM, 40).

B. Protection as methoxymethyl (MOM) ether (XXb).

Compound (XIX) (.50 g, 0.88 mmol) was dissolved in
30 dry DMF (10mL). Diisopropylethylamine (.46 mL, 2.64
mmol) and methoxymethyl bromide (.165 mL, 2.02 mmol)
were added and the solution stirred at 40 °C under
nitrogen for four h. TLC (50/50 ethyl acetate /methylene

chloride) showed that the reaction was complete. The mixture was partitioned between methylene chloride (50 mL) and 5% HCl (30 mL). The organic layer was separated, washed with water (5x20 mL), brine (20 mL), dried over MgSO_4 , filtered and evaporated to a light yellow oil. Chromatography on SiO_2 and elution with 1-20% ethyl acetate/methylene chloride afforded (XXb) as a clear oil (.29 g, 53%).

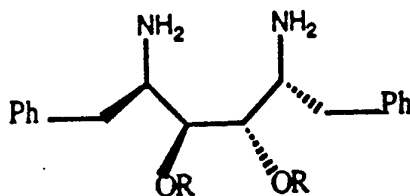
NMR (CDCl_3): δ 6.95-7.42 (m, 20H, Ph), 5.1-3.8 (m, complex), 3.35 (s, 6H, OCH_3), 2.8-2.95 (m, 4H, PhCH_2).

MS: 657 (13, $\text{M}+1$), 674 (21, $\text{M}+\text{NH}_4$), 522 (84), 414 (100), 370 (34).

Procedure 3

15

Deprotection of amines (XXa) and (XXb) via hydrogenation to afford (XXIa) and (XXIb):



20

(XXIa) R=SEM

(XXIb) R=MOM

A. Hydrogenation of SEM ether (XXa).

25

Compound (XXa) (90 g, 108.5 mmol) was dissolved in absolute ethanol (2.5 L). 5% Pd/C (6.5 g) was added and the solution was stirred under hydrogen for 1.5 h until hydrogen uptake ceased. TLC (20/80 ethyl acetate/hexane) showed that the reaction was complete. The solution was filtered through Celite and evaporated at reduced pressure to a colorless gum (60 g, 99%). NMR (CDCl_3): δ 7.1-7.35 (m, 10H, Ph), 4.72 (br d, 4H, OCH_2O), 3.5-3.9

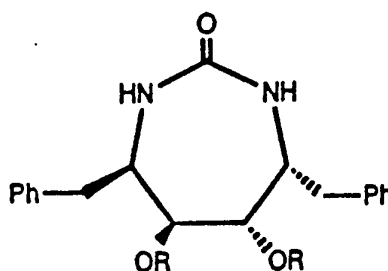
(m, 6H, NH₂, CHOCH₂), 3.15 (m, 2H, CHNH₂), 2.55-2.95 (m, 4H, PhCH₂), 0.95 (m, 4H, SiCH₂).

B. Hydrogenation of MOM ether (XXb).

5 Compound (XXb) (.29 g, .441 mmol) was dissolved in ethyl acetate (6 mL) and methanol (3 mL). 10% Pd/C (70 mg) was added and the solution stirred under hydrogen until H₂ uptake ceased. TLC (20/80 methanol/ethyl acetate) showed that the reaction was complete. The solution was filtered through Celite and evaporated at reduced pressure to afford 3b as a clear oil (.132 g, 77.4%). NMR (CDCl₃): δ 7.1-7.35 (m, 10H, Ph), 4.58 (s, 4H, OCH₂O), 3.75 (br s, 2H, CHOCH₂), 3.3-3.5 (m, 2H, CHNH₂), 3.23 (s, 6H, OCH₃), 2.85 (br d, 4H, PhCH₂). MS: 389 (M+1, 100), 345 (3.7), 280 (1.8), 120 (6.1).

Procedure 4

20 Formation of cyclic ureas (XXIIa) and (XXIIb):



(XXIIa) R=SEM

25

(XXIIb) R=MOM

A. Cyclization of SEM ether (XXIa).

30 Compound (XXIa) (40 g, 71.3 mmol) was dissolved in methylene chloride (200 mL). Carbonyl diimidazole (13.87 g, 85.6 mmol) was dissolved in methylene chloride (200

mL) in a separate flask. Each solution was then pumped into dry methylene chloride (6 L) at a rate of 90 mL/h. The mixture was then stirred for 18h at room temperature under nitrogen. TLC (60/40 ethyl acetate/hexane) showed the reaction was complete. The solvent was removed at reduced pressure and residue chromatographed on SiO₂ and eluted with 1-50% ethyl acetate/hexane to afford (XXIIa) as a white solid (38.82g, 93%). mp: 75-76°C. NMR (CDCl₃): δ 7.05-7.4 (m, 10H, Ph), 4.6-4.8 (dd, 4H, OCH₂O), 4.08 (s, 2H, CHOCH₂), 3.5-3.91 (m, 8H, NH, CHNH, OCH₂CH₂), 2.86, (br d, 4H, PhCH₂), 0.8-0.95 (m, 4H, SiCH₂). MS: 587 (M+1, 100).

B. Cyclization of MOM ether (XXIb).

Compound (XXIb) (.53 g, 1.364 mmol) was dissolved in dry methylene chloride (20 mL). In a separate flask, carbonyl diimidazole (.265 g, 1.64 mmol) was dissolved in methylene chloride (20 mL). To a third flask containing pyridine (.22 mL, 2.73 mmol) in methylene chloride (100 mL) at room temperature under nitrogen were added the first two solutions via syringe pump at a rate of 1.7 mL/h. The solution was stirred overnight at room temperature. TLC (50/50 ethyl acetate/methylene chloride) showed that the reaction was complete. The solution was washed with 5% HCl (50 mL), NaHCO₃ (50 mL), brine (50 mL), dried over MgSO₄, filtered and evaporated. The residue was chromatographed on SiO₂ and eluted with 50-75% ethyl acetate/methylene chloride to afford (XXIIb) as a colorless gum (198 mg, 35%). NMR (CDCl₃): δ 7.1-7.4 (m, 10H, Ph), 4.65 (q, 4H, OCH₂O), 4.13 (s, 2H, NH), 3.89 (t, 2H, CHNH), 3.59 (s, 2H, CHOCH₂), 3.18 (s, 6H, OCH₃), 2.87 (m, 4H, PhCH₂). MS: 415 (M+1, 100), 102 (11).

Procedure 5

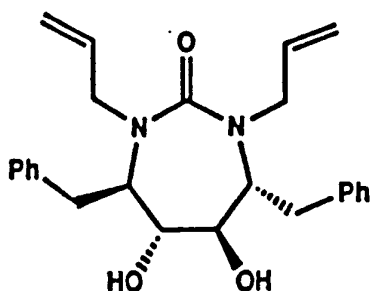
General alkylation/hydrolysis procedure:

5 Compound (XXIIa) (1 mmol) in dry DMF (5 mL) was
added to a flask containing sodium hydride (10 mmol,
that had been washed with hexane, 3x20 mL) in DMF (5
mL). The solution was stirred at room temperature under
nitrogen for 5 min. Evolution of hydrogen gas was
10 observed. The appropriate alkyl bromide (5 mmol) was
added and the solution was stirred at room temperature
under nitrogen for 1h. Hindered alkyl bromides required
heating at 40-70 °C for up to 5 h. TLC (40/60 ethyl
acetate/hexane) was used to ensure that no starting
15 material remained. The solution was quenched with
methanol (1 mL), partitioned between ether (60 mL) and
water (50 mL) and the organic layer was removed. The
aqueous layer was washed with ether (50 mL), the organic
layers combined and washed with water (4x30 mL), brine
20 (30 mL), dried over MgSO₄, filtered and evaporated. In
cases where the alkyl bromide contained nitrogen, 1 N
NaOH was used in place of water.

The crude product was hydrolyzed directly in
methanol (10 mL) and 4 N HCl/dioxane (5 mL) for up to 16
25 h at room temperature. The solution was evaporated and
chromatographed directly on SiO₂ to afford the bis-
alkylated cyclic ureas. Where nitrogen was present, the
solutions were first basified with 1 N NaOH and
extracted with ethyl acetate, dried over MgSO₄,
30 filtered, evaporated and chromatographed.

Hydrolysis of (XXIIb) under the same conditions
gave 67% yield of the N,N-unsubstituted cyclic urea
Example 1A, mp 170-174 °C.

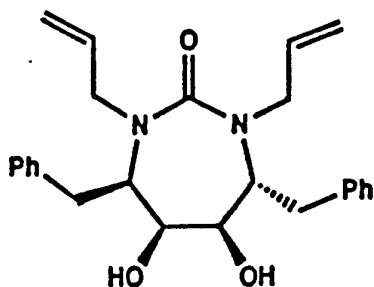
Example 1G



The experimental procedure is similar to the synthesis of Example 1E. The isomer, (2*R*,3*R*,4*R*,5*R*)-2,5-diamino-1,6-diphenyl-3,4-hexanediol, needed for the synthesis was isolated from the vanadium trichloride coupling reaction, as described in copending commonly assigned patent application Jadhav et al. USSN 07/714,042, filed 5/31/91 (see Procedure 1 above).

Example 1G: ^{13}C NMR (CDCl₃) : (75.48 MHz) 37.387, 51.51, 65.136, 72.779, 118.649, 126.540, 128.409, 129.714, 134.618, 137.757, 162.705.

Example 1F



Compound (XXIIb) (0.85g) was heated with mixture of acetic acid (9.5 mL) and water (0.5 mL) at 85 °C for 4h. After extraction with dichloromethane, followed by washing the organic extract with saturated sodium bicarbonate and brine, a mixture was provided which, on separation by column chromatography, furnished (XXIIb) (TLC 1:10 ethyl acetate/hexane R_f = 0.4; 0.54g), the desired mono-alcohol

intermediate (TLC 1:10 ethyl acetate/hexane Rf = 0.1; 0.13g), and overhydrolysed diol (0.05g).

The above mono-alcohol intermediate 0.25g (0.466 mmol),
5 triphenylphosphine 183mg (0.7 mmol), diethylazodicarboxylate
0.11 mL (0.7 mmol), and chloroacetic acid 66mg (0.7 mmol)
were stirred in 5 mL anhydrous tetrahydrofuran at 0 °C for 15
minutes and then at room temperature for 18h. The excess
reagents were quenched with 0.5 mL methanol and the mixture
10 allowed to stir for 20 minutes. The mixture was purified by
silica gel column chromatography to provide the desired
chloroacetate intermediate with inversion of configuration.
¹³C NMR (CDCl₃) : (75.48 MHz) -1.373, 14.413, 14.487, 18.253,
25.591, 33.851, 35.741, 40.505, 48.824, 49.962, 57.507,
15 58.234, 66.589, 67.885, 73.179, 77.423, 95.454, 117.296,
118.554, 126.588, 126.887, 128.518, 128.610, 129.117,
129.199, 129.479, 133.686, 134.168, 136.324, 138.285,
155.698, 166.323.

20 The above chloroacetate intermediate 73mg (0.12 mmol) in
2mL dry methanol was treated with 0.25 mL (0.5M) sodium
methoxide and stirred for 30 minutes at room temperature.
The contents were then treated with 0.3 mL (4% HCl in
methanol) and stirred for 4.5h at room temperature. The
25 residue after removal of solvent was purified on silica gel
column to provide Example 1F.

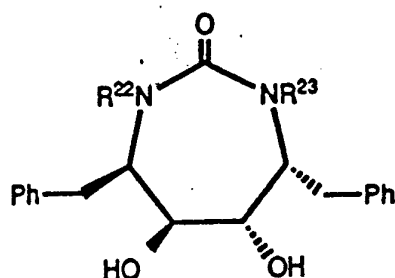
Example 1F: ¹³C NMR (CDCl₃): (75.48 MHz) 34.075,
37.672, 48.941, 48.985, 58.071, 60.640, 65.861, 73.212,
177.975, 118.669, 126.535, 126.858, 128.603, 128.815,
30 129.225, 133.605, 134.172, 137.637, 138.273, 155.497.

Examples 1A-1Z, 1AA-1AZ, and 1BA-1BD

The compounds listed in Table 1a (Examples 1A-1Z, 1AA-1AZ, and 1BA-1BD) were synthesized using the above-described procedures.

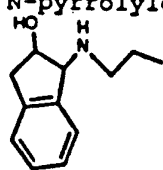
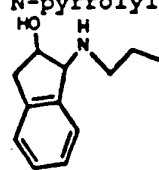
5

Table 1a



Example Number	Stereo-isomer (2,3,4,5)	R ²²	R ²³	Ki
1A	RSSR	H	H	+
1B	SRRS	H	H	+
1C	RSSR	CH ₂ CH=CH ₂	CH ₂ CH=CH ₂	+++
1D	SRRS	CH ₂ CH=CH ₂	CH ₂ CH=CH ₂	+
1E	SSSS	H	H	+
1F	RRSR	CH ₂ CH=CH ₂	CH ₂ CH=CH ₂	++
1G	RRRR	CH ₂ CH=CH ₂	CH ₂ CH=CH ₂	++
1H	SSSS	CH ₂ CH=CH ₂	CH ₂ CH=CH ₂	+
1I	SRRS	CH ₂ Ph	CH ₂ Ph	+
1J	SRRS	(CH ₂) ₂ O(CH ₂) ₂ OMe	(CH ₂) ₂ O(CH ₂) ₂ OMe	+
1K	SRRS	1-geranyl	1-geranyl	+
1L	SRRS	CH ₂ CH ₂ OH	CH ₂ CH ₂ NHCH(CH ₃) ₂ -C(=O)O-benzyl	+
1M	SRRS	CH ₂ CH ₂ (CH ₂ CH ₂ O) ₂ OCH ₃	CH ₂ CH ₂ (CH ₂ CH ₂ O) ₂ OCH ₃	+
1N	SRRS	3,7-dimethyl-1-octyl	3,7-dimethyl-1-octyl	++
1O	RSSR	CH ₃ OCH ₂ CH ₂ OCH ₂ CH ₂	CH ₃ OCH ₂ CH ₂ OCH ₂ CH ₂	+
1P	RSSR	3,7-dimethyl-1-octyl	3,7-dimethyl-1-octyl	++
1Q	RSSR	3,7-dimethyl-1-octyl	H	++
1R	RSSR	CH ₃ (OCH ₂ CH ₂) ₃	H	+

1S	RSSR	$\text{CH}_3(\text{OCH}_2\text{CH}_2)_3$	$\text{CH}_3(\text{OCH}_2\text{CH}_2)_3$	
1T	RSSR	HOCH_2CH_2	$\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)$	++
			-C(=O)O-benzyl	
1U	SRRS	$\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)$	$\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)$	+
		-C(=O)O-benzyl	-C(=O)O-benzyl	
1V	RSSR	propyl	propyl	+++
1W	RSSR	methyl	methyl	+
1X	RSSR	cyclopropyl-methyl	cyclopropyl-methyl	+++
1Y	RSSR	n-hexyl	n-hexyl	+++
1Z	RSSR	n-butyl	n-butyl	+++
1AA	RSSR	N-morpholinoethyl	N-morpholinoethyl	+
1AB	RSSR	n-heptyl	n-heptyl	++
1AC	RSSR	$\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$	$\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$	+++
1AD	RSSR	ethyl	ethyl	++
1AE	RSSR	$\text{CH}_2\text{CH}=\text{C}(\text{CH}_3)_2$	H	+++
1AF	RSSR	propyl	propyl	+++
1AG	RSSR	CH_3	CH_3	+
1AH	RSSR	i-pentyl	i-pentyl	+++
1AI	RSSR	4-pyridylmethyl	4-pyridylmethyl	++
1AJ	RSSR	2-methallyl	2-methallyl	+++
1AK	RSSR	n-pentyl	n-pentyl	+++
1AL	RSSR	i-octyl	i-octyl	++
1AM	RSSR	i-hexyl	i-hexyl	+++
1AN	RSSR	i-heptyl	i-heptyl	++
1AO	RSSR	i-butyl	i-butyl	++
1AP	RSSR	3-propargyl	3-propargyl	++
1AQ	RSSR	benzyl	benzyl	+++
1AR	RSSR	2-pyridylmethyl	2-pyridylmethyl	++
1AS	RSSR	phenylpropyl	phenylpropyl	++
1AT	RSSR	allyl	isoprenyl	+++
1AU	RSSR	1-cinnamyl	1-cinnamyl	+++
1AV		methyl	cyclopropyl-methyl	
1AW		allyl	cyclopropyl-methyl	
1AX		$\text{CH}_2\text{CH}_2\text{N}(\text{CH}_2)_2$	allyl	
1AY		methyl	benzyl	

1AZ	N-pyrrolylethyl	N-pyrrolylethyl
1BA		
1BB	2-furymethyl	2-furymethyl
1BC	CH ₂ CH ₂ OCH(CH ₂) ₂	CH ₂ CH ₂ OCH(CH ₂) ₂
1BD	isoprenyl	methyl

The K_i values in Table 1 were determined using the assay conditions described below under HIV Protease Inhibition Assay. The K_i values are indicated as follows: +++ = <10 nM; ++ = 10 nM to 1 μM; + = >1 μM.

Listed below are physical data for representative compounds of the invention.

- 10 Example 1W: mp 170-174 °C (67% yield). MS: 355 (M+1, 100). NMR (CDCl₃) δ 7.1-7.35(m, 10H, Ph), 4.03(s, 2H, CHOH), 3.5(d, 2H, NCH), 2.8-3.1(m, 6H, PhCH₂, OH), 2.58(s, 6H, NH₃).
- 15 Example 1AD: mp 214-215 °C. MS: 383(M+1, 100). NMR (CDCl₃) δ 7.1-7.35 (m, 10H, Ph), 3.95 (s, 2H, CHOH), 3.5 (d, 2H, NCH), 2.8-3.1 (m, 4H, PhCH₂, OH), 2.7 (br s, 2H, OH), 2.3 (m, 2H, NCH), .95(t, 6H, CH₃).
- 20 Example 1AF: mp 180-182 °C. MS: 411 (M+1, 100). NMR (CDCl₃) δ 7.05-7.3(m, 10H, Ph), 4.0(s, 2H, CHOH), 3.68(m, 2H, NCH₂), 3.52(d, 2H, NCH), 3.05(m, 4H, PhCH₂), 2.1(m, 2H, NCH₂), 1.6 (s, 2H, OH), 1.4 (m, 4H, MeCH₂), .79(t, 6H, CH₃).
- 25 Example 1Z: HRMS: Calc. 439.2960. Found: 439.2959.

Example 1AK: mp 125-127 °C. MS: 467 (M+1, 100).
NMR(CDCl₃) δ 7.15-7.35 (m, 10H, Ph), 3.95 (s, 2H, CHOH),
3.68 (m, 2H, NCH₂), 3.55 (d, 2H, NCH), 2.9-3.15 (m, 4H,
PhCH₂), 2.75 (s, 2H, OH), 2.18 (m, 2H, NCH₂), >8-1.45 (m,
5 complex, pentyl).

Example 1Y: mp 110-112 °C. MS: 495 (M+1, 100). NMR(CDCl₃) δ
7.1-7.35 (m, 10H, Ph), 4.0 (s, 2H, CHOH), 3.65 (m, 2H, NCH-
H), 3.52 (d, 2H, NCH), 2.8-3.2 (m, 4H, PhCH₂), 2.15 (m, 2H,
10 OH), .9-1.45 (m, 11H, hexyl).

Example 1AB: mp 100-101 °C. MS: 523 (M+1, 100). NMR(CDCl₃) δ
7.1-7.35 (m, 10H, Ph), 3.95 (s, 2H, CHOH), 3.65 (m, 2H,
NCH-H), 3.5 (d, 2H, NCH), 2.9-3.1 (m, 4H, PhCH₂), 2.6 (s,
15 2H, OH), 2.15 (m, 2H, NCH), .8-1.4 (m, complex, heptyl).

Example 1I: MS: 507 (M+1, 100). NMR(CDCl₃) δ 7.05-7.4 (m,
20H, Ph), 4.91 (d, 4H, PhCH₂N), 3.5-3.65 (m, 4H, NCH,
CHOH), 3.05 (m, 4H, PhCH₂), 2.35 (br s, 2H, OH).
20

Example 5i (R²² and R²³ = allyl; R²⁰ and R²¹ =
C(=O)CH₃): mp 164-166 °C. MS: 407 (M+1, 100). NMR(CDCl₃) δ
7.1-7.4 (m, 10H, Ph), 5.65 (m, 2H, CH₂CH), 5.01 (m, 4H,
CH₂CH), 4.26 (m, 4H, NCH₂), 3.91 (s, 2H, CHOH), 3.59 (d,
25 2H, CHN), 3.1 (m, 4H, PhCH₂), 2.7 (m, 2H, CHCH₂), 2.41 (s,
2H, OH).

Example 1AO: MS 439 (M+1, 100). NMR(CDCl₃) δ 7.15-7.35 (m,
10H, Ph), 4.05 (s, 2H, CHOH), 3.7 (m, 2H, NCH₂), 3.55 (d,
30 2H, NCH), 3.0-3.2 (m, 4H, PhCH₂), 2.65 (s, 2H, OH),
1.78 (m, 2H, NCH), 1.6 (s, 2H, CH₂CH), .82 (d, 12H, CHMe₂).

Example 1AH: mp 194-195 °C. MS: 467 (M+1, 100). NMR(CDCl₃) δ
7.15-7.35 (m, 10H, Ph), 3.95 (s, 2H, CHOH), 3.65 (m, 2H,
35 NCH), 3.49 (d, 2H, NCH), 2.9-3.1 (m, 4H, PhCH₂), 2.61 (s,

2H, OH), 2.2(m, 2H, NCH), 1.1-1.5(m, complex), .9(m, 12H, CHMe₂).

Example 1AM: mp 120-122 °C. MS: 495(M+1,100). NMR(CDCl₃) δ
 5 7.1-7.35(m, 10H, Ph), 3.95(s, 2H, NCH), 3.45-3.7(m, 4H, NCH₂, NCH), 2.9-3.2(m, 4H, PhCH₂), 2.1(m, 2H, NCH₂), .78-1.45(m, complex, hexyl).

Example 1AN: mp 105-107 °C. MS: 523(M+1,100). NMR(CDCl₃) δ
 10 7.18-7.31(m, 10H, Ph), 3.95(s, 2H, CHOH), 3.7(m, 2H, NCH₂), 3.56(d, 2H, NCH), 2.9-3.15(m, 4H, PhCH₂), 2.18(m, 2H, NCH₂), .9-1.45(m, complex, hexyl).

Example 1AL: mp 144-145 °C. MS: 551(M+1,100). NMR(CDCl₃) δ
 15 7.15-7.35(m, 10H, Ph), 3.95(s, 2H, CHOH), 3.65(m, 2H, NCH₂), 3.55(d, 2H, NCH), 2.9-3.15(m, 6H, PhCH₂, OH), 2.15(m, 2H, NCH₂), .9-1.5(m, complex, heptyl).

Example 1AC: mp 160-163 °C. MS: 463(M+1,100). NMR(CDCl₃) δ
 20 7.15-7.35(m, 10H, Ph), 5.06(br t, 2H, NCH₂CH), 4.1(dd, 2H, NCH₂), 3.9(s, 2H, CHOH), 3.5(d, 2H, NCH), 2.8-3.1(m, 4H, PhCH₂), 1.65(s, 6H, CHCH₃), 1.38(s, 6H, CHCH₃).

Example 1AJ: mp 205-207 °C. MS: 435(M+1,100). NMR(CDCl₃) δ
 25 7.1-7.35(m, 10H, Ph), 4.85(s, 2H, C=CH), 4.58(s, 2H, C=CH), 4.28(d, 2H, NCH₂), 3.95(s, 2H, CHOH), 3.7(br d, 2H, CHOH), 2.9-3.2(m, 4H, PhCH₂), 2.5(d, 2H, NCH₂), 1.75(s, 6H, CH₃).

30 Example 1AI: MS: 509(M+1,100). NMR(CDCl₃) δ 7.0-8.4(m, 18H, Ph, pyr.), 4.8-5.0(m, 4H, NCH₂), 3.7(s, 2H, CHOH), 3.5(d, 2H, NCH), 2.9-3.2(m, 8H, PhCH₂, pyrCH₂).

Example 1AP: mp 198-200 °C. MS: 403(M+1,100). NMR(CDCl₃) δ
 35 7.2-7.35(m, 10H, Ph), 4.5(s, 2H, CCH), 4.42(s, 2H, NCH),

4.1(s, 2H, CHOH), 3.8(d, 2H, NCH), 2.9-3.2(m, 4H, PhCH₂), 2.7-2.85(m, 4H, NCH₂).

Example 10: mp 105-106 °C. MS: 531(M+1,100). NMR(CDCl₃)δ
 5 7.1-7.35(m, 10H, Ph), 3.0-4.15(m, complex), 2.25(m, 2H, OH).

Example 1S: MS: 619(M+1,100). NMR(CDCl₃)δ 7.18-7.3(m, 10H, Ph), 3.0-4.2(m, complex), 2.25(m, 2H, OH).

10

Example 1P: mp 80-82 °C. MS: 607(M+1,100), 257(9.6). NMR(CDCl₃)δ 7.05-7.35(m, 10H, Ph), 3.95(s, 2H, CHOH), 3.4-3.75(m, 4H, NCH, NCH₂), 2.9-3.15(m, 4H, PhCH₂), 2.1(m, 2H, OH), .85-1.6(m, complex).

15

Example 1AA: mp 70-75 °C. MS: 553(M+1,100). NMR(CDCl₃)δ 7.05-7.4(m, 10H, Ph), 3.4-4.25(m, complex), 2.9-3.15(m, 4H, PhCH₂), 2.2-2.8(m, complex).

20 Example 1X: mp 210-212 °C. MS: 435(M+1,100). NMR(CDCl₃)δ 7.18-7.35(m, 10H, Ph), 4.06(s, 2H, CHOH), 3.68(br d, 2H, NCH), 3.55(q, 2H, NCHCH), 3.1(m, 4H, PhCH₂), 2.55(s, 2H, OH), 2.05(q, 2H, CHCH), .9(m, 2H, NCH₂CH), .42(m, 4H, -CH₂-), .008(m, 4H, -CH₂-).

25

Example

	<u>Number</u>	<u>MS (M+1, 100%)</u>
	1B	327.9
	1D	406.5
30	1H	407
	1J	531
	1K	463
	1L	604.5
	1M	619
35	1N	607

	1O	467
	1R	473
	1T	604
	1U	793
5	1V	411
	1AE	395
	1AG	355
	1AS	563
	1AT	435
10	1BD	409
	1AQ	507.26
	1AU	559.29

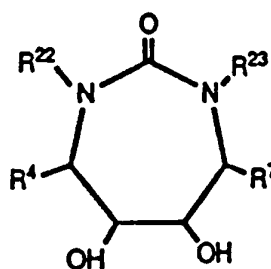
Example 1AR: mp 85-87 °C.

15 Example 1C: mp 164-166 °C.

Example 1A: mp 170-174 °C.

Using the above-described techniques or variations thereon appreciated by those of skill in the art of
 20 chemical synthesis, the compounds of Tables 1b can be prepared.

Table 1b



25

Example R22
Number

R23

R4

R7

1BE	methyl	phenylmethyl	4-F-phenylmethyl	4-F-phenylmethyl
1BF	allyl	cyclopropyl-methyl	4-F-phenylmethyl	4-F-phenylmethyl
1BG	allyl	cyclopropyl-methyl	4-Cl-phenylmethyl	4-Cl-phenylmethyl
1BH	allyl	cyclopropyl-methyl	1-pyrrolyl-methyl	1-pyrrolyl-methyl
1BI	allyl	ethyl	4-F-phenylmethyl	4-F-phenylmethyl
1BJ	isoprenyl	isoprenyl	1-pyrrolyl-methyl	1-pyrrolyl-methyl
1BK	n-butyl	n-butyl	4-hydroxy-benzyl	4-hydroxy-benzyl
1BL	N-2-acetoamido-3-methyl-butane	cyclopropyl-methyl	benzyl	1-pyrazolyl-methyl
1BM	benzyl	cyclopropyl-methyl	benzyl	1-pyrazolyl-methyl
1BN	cyclopropyl-methyl	cyclopropyl-methyl	4-phenyl-benzyl	1-pyrrolyl-methyl
1BO	cyclopropyl-methyl	cyclopropyl-methyl	benzyl	1-imidazolyl-methyl
1BP	cyclopropyl-methyl	cyclopropyl-methyl	benzyl	1-pyrrolyl-methyl
1BQ	n-butyl	cyclopropyl-methyl	benzyl	1-pyrrolyl-methyl
1BR	cyclopropyl-methyl	cyclopropyl-methyl	benzyl	1-pyrazolyl-methyl
1BS		cyclopropyl-methyl	1-pyrrolyl-methyl	1-pyrrolyl-methyl
1BT	allyl	allyl	benzyl	4-pyridinyl-methyl
1BU	N-butyl	cyclopropyl-methyl	benzyl	4-pyridinyl-methyl

Using the above-described techniques or variations thereon appreciated by those of skill in the art of chemical synthesis, the compounds of Tables 3-13 (shown
5 below) can also be prepared.

Utility

The compounds of formula (I) possess retroviral
10 protease inhibitory activity and are therefore useful as antiviral agents for the treatment of viral diseases. More particularly, the compounds of formula (I) possess HIV protease inhibitory activity and are effective as
15 inhibitors of HIV growth. The protease inhibitory activity of the compounds of the present invention is demonstrated using standard assays of protease activity, for example, using the assay described below for assaying inhibitors of HIV protease activity. The
20 ability of the compounds of the present invention to inhibit viral growth or infectivity is demonstrated in standard assay of viral growth or infectivity, for example, using the assays described below.

A compound is considered to be active if it has an
25 IC₅₀ or K_i value of less than about 1 mM for the inhibition of HIV protease or HIV viral growth or infectivity.

HIV Protease Inhibition Assay

30

Materials:

Protease: Inclusion bodies of E. coli harboring plasmid containing HIV protease under the control of an

inducible T7 promoter were prepared according to Cheng et. al (1990) Gene 87: 243. Inclusion bodies were solubilized in 8 M urea, 50 mM tris pH 8.0. Protease activity was recovered by dilution 20-fold into buffer
5 containing 50 mM sodium acetate pH 5.5, 1 mM EDTA, 10% glycerol and 5% ethylene glycol. Enzyme was used at a final concentration of 1.0-10 µg/ml.

Substrate: Peptide of sequence: Ala-Thr-His-Gln-Val-Tyr-Phe(NO₂)-Val-Arg-Lys-Ala, containing p-
10 nitrophenylalanine (Phe(NO₂)), was prepared by solid phase peptide synthesis as previously described by Cheng et al. (1990) Proc. Natl. Acad. Sci. USA 87: 9660. Stock solutions of 10 mM were prepared in DMSO.

Inhibitory compounds were dissolved in sufficient
15 DMSO to make 2.5 or 25 mM stock solutions. All further dilutions were done in DMSO.

Reactions:

Compound (1-5 µL) and HIV protease were mixed in
20 buffer containing 50 mM MES, pH 6.5, 1 M NaCl, 1 mM EDTA, 1 mM dithiothreitol, 10% glycerol. Reactions were initiated by the addition of peptide substrate to a final concentration of 240 µM, and absorbance at 300 nm monitored for 10 min. Values of K_i for inhibitor
25 binding were determined from percent activity measurements in the presence and absence of known concentration of inhibitor, using a value of 0.07 mM for the K_m of the substrate (Cheng et al. (1990) Proc. Natl. Acad. Sci. USA 87: 9660).

30 The HIV-1 protease inhibitory activity of representative compounds of the invention is shown in Table 1 (above).

HIV Yield Reduction Cell Assay

Materials: MT-2, a human T-cell line, was cultured in RPMI medium supplemented with 5% (v/v) heat
5 inactivated fetal calf serum (FCS), L-glutamine and gentamycin. Human immunodeficiency virus strains, HIV (3B) and HIV(RF) were propagated in H-9 cells in RPMI with 5% FCS. Poly-L-lysine (Sigma) coated cell culture
10 plates were prepared according to the method of Harada et al. (1985) Science 229: 563-566. MTT, 3-(4,5-dimethyl-thiazol-2yl)-2,5-diphenyltetrazolium bromide, was obtained from Sigma.

Method: Test compounds were dissolved in dimethylsulfoxide to 5 mg/mL and serially diluted into
15 RPMI medium to ten times the desired final concentration. MT-2 cells (5×10^5 /mL) in 2.3 mL were mixed with 0.3 ml of the appropriate test compound solution and allowed to sit for 30 minutes at room temperature. HIV (3B) or HIV (RF) ($\sim 5 \times 10^5$ plaque
20 forming units/mL) in 0.375 ml was added to the cell and compound mixtures and incubated for one hour at 36°C. The mixtures were centrifuged at 1000 rpm for 10 minutes and the supernatants containing unattached virus were discarded. The cell pellets were suspended in fresh RPMI
25 containing the appropriate concentrations of test compound and placed in a 36°C, 4% CO₂ incubator. Virus was allowed to replicate for 3 days. Cultures were centrifuged for 10 minutes at 1000 rpm and the supernatants containing cell free progeny virus were
30 removed for plaque assay.

The virus titers of the progeny virus produced in the presence or absence of test compounds were determined by plaque assay. Progeny virus suspensions were serially diluted in RPMI and 1.0 mL of each
35 dilution was added to 9 ml of MT-2 cells in RPMI. Cells

and virus were incubated for 3 hours at 36°C to allow for efficient attachment of the virus to cells. Each virus and cell mixture was aliquoted equally to two wells of a six well poly-L-lysine coated culture plate and incubated overnight at 36°C, 4% CO₂. Liquid and unattached cells were removed prior to the addition of 1.5 mL of RPMI with 0.75% (w/v) Seaplaque agarose (FMC Corp.) and 5% FCS. Plates were incubated for 3 days and a second RPMI/agarose overlay was added. After an additional 3 days at 36°C, 4% CO₂, a final overlay of phosphate-buffered saline with 0.75% Seaplaque agarose and 1 mg MTT/mL was added. The plates were incubated overnight at 36°C. Clear plaques on a purple background were counted and the number of plaque forming units of virus was calculated for each sample. The antiviral activity of test compounds was determined by the percent reduction in the virus titer with respect to virus grown in the absence of any inhibitors.

20 HIV Low Multiplicity Assay

Materials: MT-2, a human T-cell line, was cultured in RPMI medium supplemented with 5% (v/v) heat inactivated fetal calf serum (FCS), L-glutamine and gentamycin (GIBCO). Human immunodeficiency virus strains HIV (3B) and HIV (RF) were propagated in H-9 cells in RPMI with 5% FCS. XTT, benzene-sulfonic acid, 3,3'-[1-[(phenyl-amino)carbonyl]-3,4-tetrazolium]bis(4-methoxy-6-nitro)-, sodium salt, was obtained from Starks Associates, Inc.

Method: Test compounds were dissolved in dimethylsulfoxide to 5 mg/ml and serially diluted into RPMI medium to ten times the desired final concentration. MT-2 cells (5×10^4 /0.1 mL) were added to each well of a 96 well culture plate and 0.02 mL of the appropriate

test compound solution was added to the cells such that each compound concentration was present in two wells. The cells and compounds were allowed to sit for 30 minutes at room temperature. HIV(3B) or HIV(RF) ($\sim 5 \times 10^5$ plaque forming units/mL) was diluted in medium and added to the cell and compound mixtures to give a multiplicity of infection of 0.01 plaque forming unit/cell. The mixtures were incubated for 7 days at 36°C, during which time the virus replicated and caused the death of unprotected cells. The percentage of cells protected from virus induced cell death was determined by the degree of metabolism of the tetrazolium dye, XTT. In living cells, XTT was metabolized to a colored formazan product which was quantitated spectrophotometrically at 450 nm. The amount of colored formazan was proportional to the number of cells protected from virus by the test compound. The concentration of compound protecting either 50% (IC₅₀) or 90% (IC₉₀) with respect to an uninfected cell culture was determined.

The HIV inhibitory activity of representative compounds of the present invention in the whole cell infectivity assay described above is shown in Table 2.

25

Table 2

	<u>Example Number</u>	<u>IC₉₀</u>
	1C	+++
	1X	+++
30	1Z	+++
	1AC	+++
	1AF	+++
	1AH	+++
	1AQ	+++

The IC_{90} values in Table 2 are indicated as: +++ = <10 $\mu\text{g/mL}$.

Dosage and Formulation

5

The antiviral compounds of this invention can be administered as treatment for viral infections by any means that produces contact of the active agent with the agent's site of action, the viral protease, in the body
10 of a mammal. They can be administered by any conventional means available for use in conjunction with pharmaceuticals, either as individual therapeutic agents or in a combination of therapeutic agents. They can be administered alone, but generally administered with a
15 pharmaceutical carrier selected on the basis of the chosen route of administration and standard pharmaceutical practice.

The dosage administered will, of course, vary depending upon known factors, such as the
20 pharmacodynamic characteristics of the particular agent and its mode and route of administration; the age, health and weight of the recipient; the nature and extent of the symptoms; the kind of concurrent treatment; the frequency of treatment; and the effect
25 desired. A daily dosage of active ingredient can be expected to be about 0.001 to 1000 milligrams per kilogram of body weight, with the preferred dose being 0.1 to about 30 mg/kg.

Dosage forms (compositions suitable for
30 administration contain from about 1 milligram to about 100 milligrams of active ingredient per unit. In these pharmaceutical compositions the active ingredient will ordinarily be present in an amount of about 0.5-95% by weight based on the total weight of the composition.

The active ingredient can be administered orally in solid dosage forms, such as capsules, tablets, and powders, or in liquid dosage forms, such as elixirs, syrups, and suspensions. It can also be administered
5 parenterally, in sterile liquid dosage forms.

Gelatin capsules contain the active ingredient and powdered carriers, such as lactose, starch, cellulose derivatives, magnesium stearate, stearic acid, and the like. Similar diluents can be used to make compressed
10 tablets. Both tablets and capsules can be manufactured as sustained release products to provide for continuous release of medication over a period of hours. Compressed tablets can be sugar coated or film coated to mask any unpleasant taste and protect the tablet from
15 the atmosphere, or enteric coated for selective disintegration in the gastrointestinal tract.

Liquid dosage forms for oral administration can contain coloring and flavoring to increase patient acceptance.

20 In general, water, a suitable oil, saline, aqueous dextrose (glucose), and related sugar solutions and glycols such as propylene glycol or polyethylene glycols are suitable carriers for parenteral solutions. Solutions for parenteral administration preferably
25 contain a water soluble salt of the active ingredient, suitable stabilizing agents, and if necessary, buffer substances. Antioxidizing agents such as sodium bisulfite, sodium sulfite, or ascorbic acid, either alone or combined, are suitable stabilizing agents.
30 Also used are citric acid and its salts and sodium EDTA. In addition, parenteral solutions can contain preservatives, such as benzalkonium chloride, methyl- or propyl-paraben, and chlorobutanol.

Suitable pharmaceutical carriers are described in Remington's Pharmaceutical Sciences, Mack Publishing Company, a standard reference text in this field.

Useful pharmaceutical dosage-forms for
5 administration of the compounds of this invention can be illustrated as follows:

Capsules

A large number of unit capsules are prepared by
10 filling standard two-piece hard gelatin capsules each with 100 milligrams of powdered active ingredient, 150 milligrams of lactose, 50 milligrams of cellulose, and 6 milligrams magnesium stearate.

15 Soft Gelatin Capsules

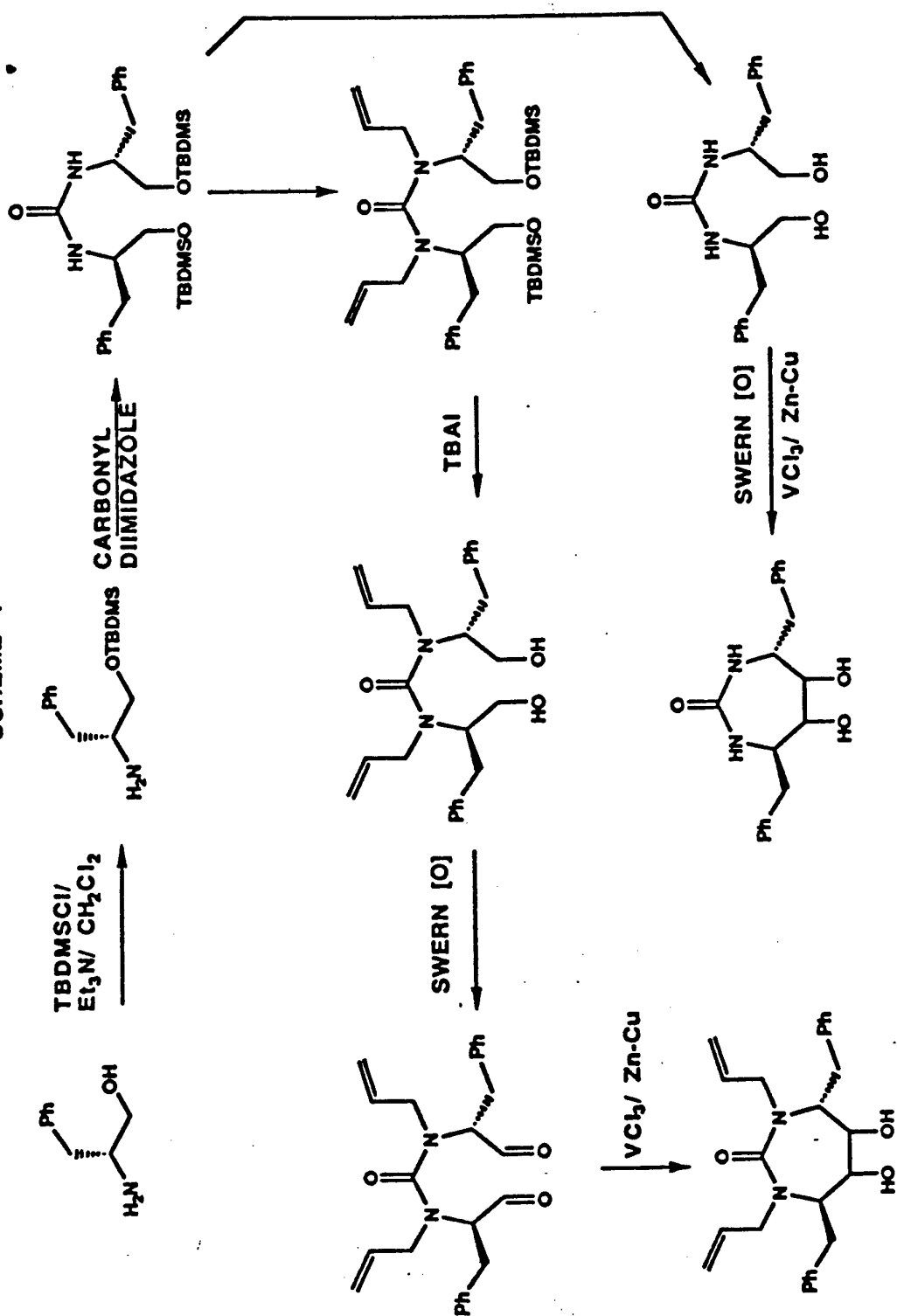
A mixture of active ingredient in a digestable oil such as soybean oil, cottonseed oil or olive oil is prepared and injected by means of a positive displacement pump into gelatin to form soft gelatin
20 capsules containing 100 milligrams of the active ingredient. The capsules are washed and dried.

Tablets

A large number of tablets are prepared by
25 conventional procedures so that the dosage unit was 100 milligrams of active ingredient, 0.2 milligrams of colloidal silicon dioxide, 5 milligrams of magnesium stearate, 275 milligrams of microcrystalline cellulose, 11 milligrams of starch and 98.8 milligrams of lactose.
30 Appropriate coatings may be applied to increase palatability or delay absorption.

Tables 3-16 below set forth representative compounds of the present invention.

SCHEME 1



Scheme 2

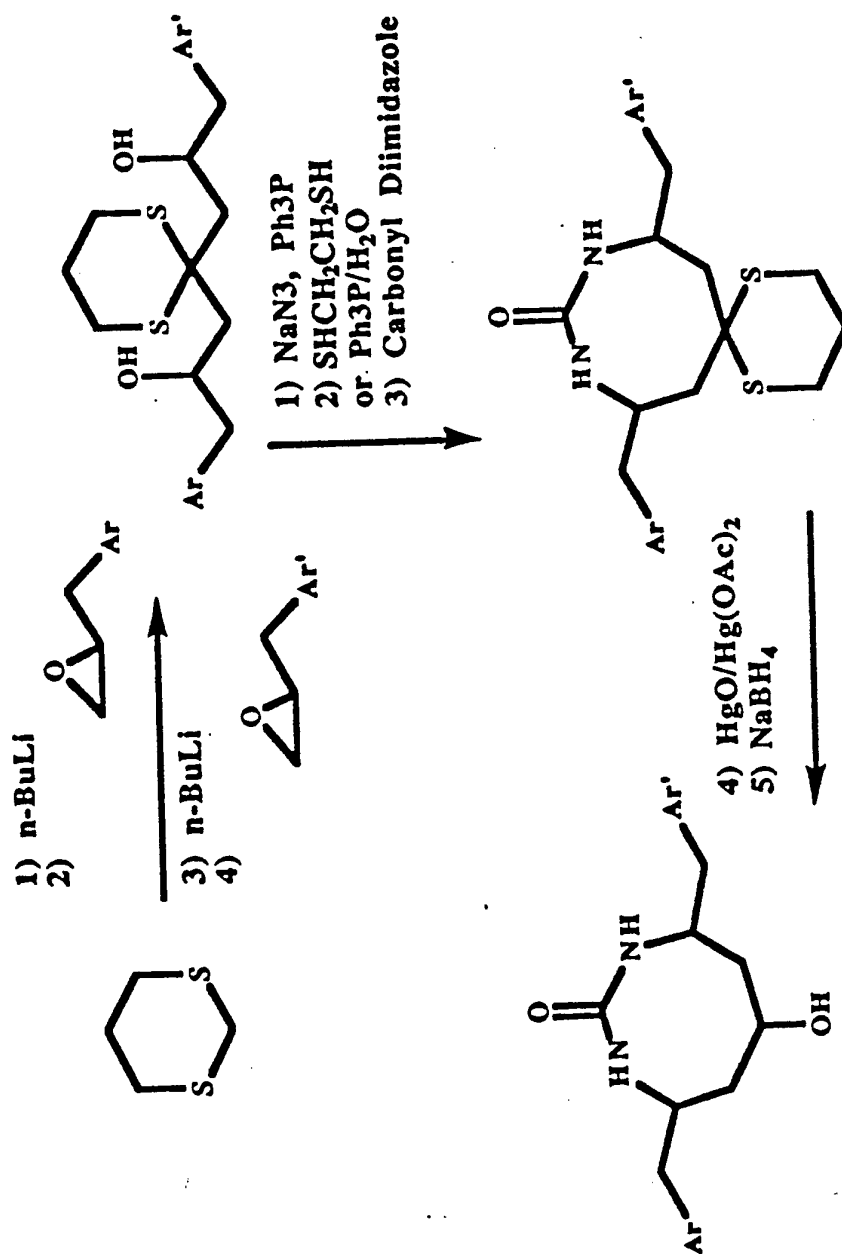
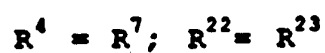
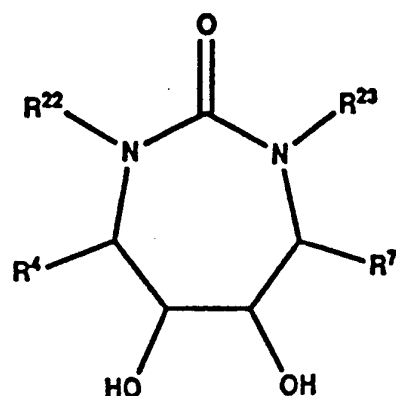


Table 3

TABLE 3



Example Number	$R^4 = R^7$	$R^{22} = R^{23}$
1	benzyl	allyl
2	1-pyrrolylmethyl	allyl
3	1-pyrazolylmethyl	allyl
4	1-imidazolylmethyl	allyl
5	1-indolylmethyl	allyl
6	1-triazolylmethyl	allyl
7	1-tetrazolylmethyl	allyl
8	2-pyridylmethyl	allyl
9	3-pyridylmethyl	allyl
10	4-pyridylmethyl	allyl
11	cyclohexylmethyl	allyl
12	2-naphthylmethyl	allyl
13	3-naphthylmethyl	allyl
14	2-thiophenylmethyl	allyl
15	4-(1-methyl)piperidinyl- methyl	allyl
16	"(3,4- methylenedioxyphenyl)methyl"	allyl
17	2-thienylmethyl	allyl
18	4-biphenylmethyl	allyl
19	pyrimidinylmethyl	allyl
20	2-benzothiazolylmethyl	allyl
21	2-benzothiophenylmethyl	allyl
22	2-thiomethylethyl	allyl
23	2-thiomethylmethyl	allyl
24	2-methylpropyl	allyl
25	2-methylbutyl	allyl

Table 3

26	3-methylbutyl	allyl
27	cyclopropylmethyl	allyl
28	cyclobutylmethyl	allyl
29	cyclopentylmethyl	allyl
30	p-hydroxyphenylmethyl	allyl
31	p-nitrophenylmethyl	allyl
32	p-aminophenylmethyl	allyl
33	"4-(N,N-dimethylamino)phenylmethyl"	allyl
34	benzyl	propyl
35	1-pyrolylmethyl	propyl
36	1-pyrazolylmethyl	propyl
37	1-imidazolylmethyl	propyl
38	1-indolylmethyl	propyl
39	1-triazolylmethyl	propyl
40	1-tetrazolylmethyl	propyl
41	2-pyridylmethyl	propyl
42	3-pyridylmethyl	propyl
43	4-pyridylmethyl	propyl
44	cyclohexylmethyl	propyl
45	2-naphthylmethyl	propyl
46	3-naphthylmethyl	propyl
47	2-thiophenylmethyl	propyl
48	4-(1-methyl)piperidinyl-methyl	propyl
49	"(3,4-methylenedioxyphenyl)methyl"	propyl
50	2-thienylmethyl	propyl
51	4-biphenylmethyl	propyl
52	pyrimidinylmethyl	propyl
53	2-benzothiazolylmethyl	propyl
54	2-benzothiophenylmethyl	propyl
55	2-thiomethylethyl	propyl
56	2-thiomethylmethyl	propyl
57	2-methylpropyl	propyl
58	2-methylbutyl	propyl
59	3-methylbutyl	propyl
60	cyclopropylmethyl	propyl
61	cyclobutylmethyl	propyl
62	cyclopentylmethyl	propyl
63	p-hydroxyphenylmethyl	propyl
64	p-nitrophenylmethyl	propyl
65	p-aminophenylmethyl	propyl
66	"4-(N,N-dimethylamino)phenylmethyl"	propyl
67	benzyl	n-butyl
68	1-pyrolylmethyl	n-butyl
69	1-pyrazolylmethyl	n-butyl
70	1-imidazolylmethyl	n-butyl
71	1-indolylmethyl	n-butyl
72	1-triazolylmethyl	n-butyl
73	1-tetrazolylmethyl	n-butyl
74	2-pyridylmethyl	n-butyl
75	3-pyridylmethyl	n-butyl

Table 3

76	4-pyridylmethyl	n-butyl
77	cyclohexylmethyl	n-butyl
78	2-naphthylmethyl	n-butyl
79	3-naphthylmethyl	n-butyl
80	2-thiophenylmethyl	n-butyl
81	4-(1-methyl)piperidinyl- methyl	n-butyl
82	"(3,4- methylenedioxyphenyl)methyl"	n-butyl
83	2-thienylmethyl	n-butyl
84	4-biphenylmethyl	n-butyl
85	pyrimidinylmethyl	n-butyl
86	2-benzothiazolylmethyl	n-butyl
87	2-benzothiophenylmethyl	n-butyl
88	2-thiomethylethyl	n-butyl
89	2-thiomethylmethyl	n-butyl
90	2-methylpropyl	n-butyl
91	2-methylbutyl	n-butyl
92	3-methylbutyl	n-butyl
93	cyclopropylmethyl	n-butyl
94	cyclobutylmethyl	n-butyl
95	cyclopentylmethyl	n-butyl
96	p-hydroxyphenylmethyl	n-butyl
97	p-nitrophenylmethyl	n-butyl
98	p-aminophenylmethyl	n-butyl
99	"4-(N,N- dimethylamino)phenylmethyl"	n-butyl
100	benzyl	isobutyl
101	1-pyrollylmethyl	isobutyl
102	1-pyrazolylmethyl	isobutyl
103	1-imidazolylmethyl	isobutyl
104	1-indolylmethyl	isobutyl
105	1-triazolylmethyl	isobutyl
106	1-tetrazolylmethyl	isobutyl
107	2-pyridylmethyl	isobutyl
108	3-pyridylmethyl	isobutyl
109	4-pyridylmethyl	isobutyl
110	cyclohexylmethyl	isobutyl
111	2-naphthylmethyl	isobutyl
112	3-naphthylmethyl	isobutyl
113	2-thiophenylmethyl	isobutyl
114	4-(1-methyl)piperidinyl- methyl	isobutyl
115	"(3,4- methylenedioxyphenyl)methyl"	isobutyl
116	2-thienylmethyl	isobutyl
117	4-biphenylmethyl	isobutyl
118	pyrimidinylmethyl	isobutyl
119	2-benzothiazolylmethyl	isobutyl
120	2-benzothiophenylmethyl	isobutyl
121	2-thiomethylethyl	isobutyl
122	2-thiomethylmethyl	isobutyl
123	2-methylpropyl	isobutyl
124	2-methylbutyl	isobutyl

Table 3

125	3-methylbutyl	isobutyl
126	cyclopropylmethyl	isobutyl
127	cyclobutylmethyl	isobutyl
128	cyclopentylmethyl	isobutyl
129	p-hydroxyphenylmethyl	isobutyl
130	p-nitrophenylmethyl	isobutyl
131	p-aminophenylmethyl	isobutyl
132	"4-(N,N-dimethylamino)phenylmethyl"	isobutyl
133	benzyl	2-butyl
134	1-pyrolylmethyl	2-butyl
135	1-pyrazolylmethyl	2-butyl
136	1-imidazolylmethyl	2-butyl
137	1-indolylmethyl	2-butyl
138	1-triazolylmethyl	2-butyl
139	1-tetrazolylmethyl	2-butyl
140	2-pyridylmethyl	2-butyl
141	3-pyridylmethyl	2-butyl
142	4-pyridylmethyl	2-butyl
143	cyclohexylmethyl	2-butyl
144	2-naphthylmethyl	2-butyl
145	3-naphthylmethyl	2-butyl
146	2-thiophenylmethyl	2-butyl
147	4-(1-methyl)piperidinyl-methyl	2-butyl
148	"(3,4-methylenedioxyphenyl)methyl"	2-butyl
149	2-thienylmethyl	2-butyl
150	4-biphenylmethyl	2-butyl
151	pyrimidinylmethyl	2-butyl
152	2-benzothiazolylmethyl	2-butyl
153	2-benzothiophenylmethyl	2-butyl
154	2-thiomethylethyl	2-butyl
155	2-thiomethylmethyl	2-butyl
156	2-methylpropyl	2-butyl
157	2-methylbutyl	2-butyl
158	3-methylbutyl	2-butyl
159	cyclopropylmethyl	2-butyl
160	cyclobutylmethyl	2-butyl
161	cyclopentylmethyl	2-butyl
162	p-hydroxyphenylmethyl	2-butyl
163	p-nitrophenylmethyl	2-butyl
164	p-aminophenylmethyl	2-butyl
165	"4-(N,N-dimethylamino)phenylmethyl"	2-butyl
166	benzyl	"3,3-dimethallyl"
167	1-pyrolylmethyl	"3,3-dimethallyl"
168	1-pyrazolylmethyl	"3,3-dimethallyl"
169	1-imidazolylmethyl	"3,3-dimethallyl"
170	1-indolylmethyl	"3,3-dimethallyl"
171	1-triazolylmethyl	"3,3-dimethallyl"
172	1-tetrazolylmethyl	"3,3-dimethallyl"
173	2-pyridylmethyl	"3,3-dimethallyl"
174	3-pyridylmethyl	"3,3-dimethallyl"

Table 3

175	4-pyridylmethyl	"3,3-dimethallyl"
176	cyclohexylmethyl	"3,3-dimethallyl"
177	2-naphthylmethyl	"3,3-dimethallyl"
178	3-naphthylmethyl	"3,3-dimethallyl"
179	2-thiophenylmethyl	"3,3-dimethallyl"
180	4-(1-methyl)piperidinyl-methyl	"3,3-dimethallyl"
181	"(3,4-methylenedioxyphenyl)methyl"	"3,3-dimethallyl"
182	2-thienylmethyl	"3,3-dimethallyl"
183	4-biphenylmethyl	"3,3-dimethallyl"
184	pyrimidinylmethyl	"3,3-dimethallyl"
185	2-benzothiazolylmethyl	"3,3-dimethallyl"
186	2-benzothiophenylmethyl	"3,3-dimethallyl"
187	2-thiomethylethyl	"3,3-dimethallyl"
188	2-thiomethylmethyl	"3,3-dimethallyl"
189	2-methylpropyl	"3,3-dimethallyl"
190	2-methylbutyl	"3,3-dimethallyl"
191	3-methylbutyl	"3,3-dimethallyl"
192	cyclopropylmethyl	"3,3-dimethallyl"
193	cyclobutylmethyl	"3,3-dimethallyl"
194	cyclopentylmethyl	"3,3-dimethallyl"
195	p-hydroxyphenylmethyl	"3,3-dimethallyl"
196	p-nitrophenylmethyl	"3,3-dimethallyl"
197	p-aminophenylmethyl	"3,3-dimethallyl"
198	"4-(N,N-dimethylamino)phenylmethyl"	"3,3-dimethallyl"
199	benzyl	3-methallyl
200	1-pyrollylmethyl	3-methallyl
201	1-pyrazolylmethyl	3-methallyl
202	1-imidazolylmethyl	3-methallyl
203	1-indolylmethyl	3-methallyl
204	1-triazolylmethyl	3-methallyl
205	1-tetrazolylmethyl	3-methallyl
206	2-pyridylmethyl	3-methallyl
207	3-pyridylmethyl	3-methallyl
208	4-pyridylmethyl	3-methallyl
209	cyclohexylmethyl	3-methallyl
210	2-naphthylmethyl	3-methallyl
211	3-naphthylmethyl	3-methallyl
212	2-thiophenylmethyl	3-methallyl
213	4-(1-methyl)piperidinyl-methyl	3-methallyl
214	"(3,4-methylenedioxyphenyl)methyl"	3-methallyl
215	2-thienylmethyl	3-methallyl
216	4-biphenylmethyl	3-methallyl
217	pyrimidinylmethyl	3-methallyl
218	2-benzothiazolylmethyl	3-methallyl
219	2-benzothiophenylmethyl	3-methallyl
220	2-thiomethylethyl	3-methallyl
221	2-thiomethylmethyl	3-methallyl
222	2-methylpropyl	3-methallyl
223	2-methylbutyl	3-methallyl

Table 3

224	3-methylbutyl	3-methallyl
225	cyclopropylmethyl	3-methallyl
226	cyclobutylmethyl	3-methallyl
227	cyclopentylmethyl	3-methallyl
228	p-hydroxyphenylmethyl	3-methallyl
229	p-nitrophenylmethyl	3-methallyl
230	p-aminophenylmethyl	3-methallyl
231	"4-(N,N-dimethylamino)phenylmethyl"	3-methallyl
232	benzyl	2-methallyl
233	1-pyrolylmethyl	2-methallyl
234	1-pyrazolylmethyl	2-methallyl
235	1-imidazolylmethyl	2-methallyl
236	1-indolylmethyl	2-methallyl
237	1-triazolylmethyl	2-methallyl
238	1-tetrazolylmethyl	2-methallyl
239	2-pyridylmethyl	2-methallyl
240	3-pyridylmethyl	2-methallyl
241	4-pyridylmethyl	2-methallyl
242	cyclohexylmethyl	2-methallyl
243	2-naphthylmethyl	2-methallyl
244	3-naphthylmethyl	2-methallyl
245	2-thiophenylmethyl	2-methallyl
246	4-(1-methyl)piperidinyl-methyl	2-methallyl
247	"(3,4-methylenedioxyphenyl)methyl"	2-methallyl
248	2-thienylmethyl	2-methallyl
249	4-biphenylmethyl	2-methallyl
250	pyrimidinylmethyl	2-methallyl
251	2-benzothiazolylmethyl	2-methallyl
252	2-benzothiophenylmethyl	2-methallyl
253	2-thiomethylethyl	2-methallyl
254	2-thiomethylmethyl	2-methallyl
255	2-methylpropyl	2-methallyl
256	2-methylbutyl	2-methallyl
257	3-methylbutyl	2-methallyl
258	cyclopropylmethyl	2-methallyl
259	cyclobutylmethyl	2-methallyl
260	cyclopentylmethyl	2-methallyl
261	p-hydroxyphenylmethyl	2-methallyl
262	p-nitrophenylmethyl	2-methallyl
263	p-aminophenylmethyl	2-methallyl
264	"4-(N,N-dimethylamino)phenylmethyl"	2-methallyl
265	benzyl	2-propyl
266	1-pyrolylmethyl	2-propyl
267	1-pyrazolylmethyl	2-propyl
268	1-imidazolylmethyl	2-propyl
269	1-indolylmethyl	2-propyl
270	1-triazolylmethyl	2-propyl
271	1-tetrazolylmethyl	2-propyl
272	2-pyridylmethyl	2-propyl
273	3-pyridylmethyl	2-propyl

Table 3

274	4-pyridylmethyl	2-propyl
275	cyclohexylmethyl	2-propyl
276	2-naphthylmethyl	2-propyl
277	3-naphthylmethyl	2-propyl
278	2-thiophenylmethyl	2-propyl
279	4-(1-methyl)piperidinyl-	2-propyl
	methyl	
280	"(3,4-	2-propyl
	methylenedioxyphenyl)methyl"	
281	2-thienylmethyl	2-propyl
282	4-biphenylmethyl	2-propyl
283	pyrimidinylmethyl	2-propyl
284	2-benzothiazolylmethyl	2-propyl
285	2-benzothiophenylmethyl	2-propyl
286	2-thiomethylethyl	2-propyl
287	2-thiomethylmethyl	2-propyl
288	2-methylpropyl	2-propyl
289	2-methylbutyl	2-propyl
290	3-methylbutyl	2-propyl
291	cyclopropylmethyl	2-propyl
292	cyclobutylmethyl	2-propyl
293	cyclopentylmethyl	2-propyl
294	p-hydroxyphenylmethyl	2-propyl
295	p-nitrophenylmethyl	2-propyl
296	p-aminophenylmethyl	2-propyl
297	"4-(N,N-	2-propyl
	dimethylamino)phenylmethyl"	
298	benzyl	cyclopropyl
299	1-pyrollylmethyl	cyclopropyl
300	1-pyrazolylmethyl	cyclopropyl
301	1-imidazolylmethyl	cyclopropyl
302	1-indolylmethyl	cyclopropyl
303	1-triazolylmethyl	cyclopropyl
304	1-tetrazolylmethyl	cyclopropyl
305	2-pyridylmethyl	cyclopropyl
306	3-pyridylmethyl	cyclopropyl
307	4-pyridylmethyl	cyclopropyl
308	cyclohexylmethyl	cyclopropyl
309	2-naphthylmethyl	cyclopropyl
310	3-naphthylmethyl	cyclopropyl
311	2-thiophenylmethyl	cyclopropyl
312	4-(1-methyl)piperidinyl-	cyclopropyl
	methyl	
313	"(3,4-	cyclopropyl
	methylenedioxyphenyl)methyl"	
314	2-thienylmethyl	cyclopropyl
315	4-biphenylmethyl	cyclopropyl
316	pyrimidinylmethyl	cyclopropyl
317	2-benzothiazolylmethyl	cyclopropyl
318	2-benzothiophenylmethyl	cyclopropyl
319	2-thiomethylethyl	cyclopropyl
320	2-thiomethylmethyl	cyclopropyl
321	2-methylpropyl	cyclopropyl
322	2-methylbutyl	cyclopropyl

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323	3-methylbutyl	cyclopropyl
324	cyclopropylmethyl	cyclopropyl
325	cyclobutylmethyl	cyclopropyl
326	cyclopentylmethyl	cyclopropyl
327	p-hydroxyphenylmethyl	cyclopropyl
328	p-nitrophenylmethyl	cyclopropyl
329	p-aminophenylmethyl	cyclopropyl
330	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropyl
331	benzyl	cyclopropylmethyl
332	1-pyrolylmethyl	cyclopropylmethyl
333	1-pyrazolylmethyl	cyclopropylmethyl
334	1-imidazolylmethyl	cyclopropylmethyl
335	1-indolylmethyl	cyclopropylmethyl
336	1-triazolylmethyl	cyclopropylmethyl
337	1-tetrazolylmethyl	cyclopropylmethyl
338	2-pyridylmethyl	cyclopropylmethyl
339	3-pyridylmethyl	cyclopropylmethyl
340	4-pyridylmethyl	cyclopropylmethyl
341	cyclohexylmethyl	cyclopropylmethyl
342	2-naphthylmethyl	cyclopropylmethyl
343	3-naphthylmethyl	cyclopropylmethyl
344	2-thiophenylmethyl	cyclopropylmethyl
345	4-(1-methyl)piperidinyl-methyl	cyclopropylmethyl
346	"(3,4-methylenedioxyphenyl)methyl"	cyclopropylmethyl
347	2-thienylmethyl	cyclopropylmethyl
348	4-biphenylmethyl	cyclopropylmethyl
349	pyrimidinylmethyl	cyclopropylmethyl
350	2-benzothiazolylmethyl	cyclopropylmethyl
351	2-benzothiophenylmethyl	cyclopropylmethyl
352	2-thiomethylethyl	cyclopropylmethyl
353	2-thiomethylmethyl	cyclopropylmethyl
354	2-methylpropyl	cyclopropylmethyl
355	2-methylbutyl	cyclopropylmethyl
356	3-methylbutyl	cyclopropylmethyl
357	cyclopropylmethyl	cyclopropylmethyl
358	cyclobutylmethyl	cyclopropylmethyl
359	cyclopentylmethyl	cyclopropylmethyl
360	p-hydroxyphenylmethyl	cyclopropylmethyl
361	p-nitrophenylmethyl	cyclopropylmethyl
362	p-aminophenylmethyl	cyclopropylmethyl
363	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropylmethyl
364	benzyl	n-pentyl
365	1-pyrolylmethyl	n-pentyl
366	1-pyrazolylmethyl	n-pentyl
367	1-imidazolylmethyl	n-pentyl
368	1-indolylmethyl	n-pentyl
369	1-triazolylmethyl	n-pentyl
370	1-tetrazolylmethyl	n-pentyl
371	2-pyridylmethyl	n-pentyl
372	3-pyridylmethyl	n-pentyl

Table 3

373	4-pyridylmethyl	n-pentyl
374	cyclohexylmethyl	n-pentyl
375	2-naphthylmethyl	n-pentyl
376	3-naphthylmethyl	n-pentyl
377	2-thiophenylmethyl	n-pentyl
378	4-(1-methyl)piperidinyl- methyl	n-pentyl
379	"(3,4- methylenedioxyphenyl)methyl"	n-pentyl
380	2-thienylmethyl	n-pentyl
381	4-biphenylmethyl	n-pentyl
382	pyrimidinylmethyl	n-pentyl
383	2-benzothiazolylmethyl	n-pentyl
384	2-benzothiophenylmethyl	n-pentyl
385	2-thiomethylethyl	n-pentyl
386	2-thiomethylmethyl	n-pentyl
387	2-methylpropyl	n-pentyl
388	2-methylbutyl	n-pentyl
389	3-methylbutyl	n-pentyl
390	cyclopropylmethyl	n-pentyl
391	cyclobutylmethyl	n-pentyl
392	cyclopentylmethyl	n-pentyl
393	p-hydroxyphenylmethyl	n-pentyl
394	p-nitrophenylmethyl	n-pentyl
395	p-aminophenylmethyl	n-pentyl
396	"4-(N,N- dimethylamino)phenylmethyl"	n-pentyl
397	benzyl	2-pentyl
398	1-pyrollylmethyl	2-pentyl
399	1-pyrazolylmethyl	2-pentyl
400	1-imidazolylmethyl	2-pentyl
401	1-indolylmethyl	2-pentyl
402	1-triazolylmethyl	2-pentyl
403	1-tetrazolylmethyl	2-pentyl
404	2-pyridylmethyl	2-pentyl
405	3-pyridylmethyl	2-pentyl
406	4-pyridylmethyl	2-pentyl
407	cyclohexylmethyl	2-pentyl
408	2-naphthylmethyl	2-pentyl
409	3-naphthylmethyl	2-pentyl
410	2-thiophenylmethyl	2-pentyl
411	4-(1-methyl)piperidinyl- methyl	2-pentyl
412	"(3,4- methylenedioxyphenyl)methyl"	2-pentyl
413	2-thienylmethyl	2-pentyl
414	4-biphenylmethyl	2-pentyl
415	pyrimidinylmethyl	2-pentyl
416	2-benzothiazolylmethyl	2-pentyl
417	2-benzothiophenylmethyl	2-pentyl
418	2-thiomethylethyl	2-pentyl
419	2-thiomethylmethyl	2-pentyl
420	2-methylpropyl	2-pentyl
421	2-methylbutyl	2-pentyl

Table 3

472	4-pyridylmethyl	3-methylbutyl
473	cyclohexylmethyl	3-methylbutyl
474	2-naphthylmethyl	3-methylbutyl
475	3-naphthylmethyl	3-methylbutyl
476	2-thiophenylmethyl	3-methylbutyl
477	4-(1-methyl)piperidinyl- methyl	3-methylbutyl
478	"(3,4- methylenedioxyphenyl)methyl"	3-methylbutyl
479	2-thienylmethyl	3-methylbutyl
480	4-biphenylmethyl	3-methylbutyl
481	pyrimidinylmethyl	3-methylbutyl
482	2-benzothiazolylmethyl	3-methylbutyl
483	2-benzothiophenylmethyl	3-methylbutyl
484	2-thiomethylethyl	3-methylbutyl
485	2-thiomethylmethyl	3-methylbutyl
486	2-methylpropyl	3-methylbutyl
487	2-methylbutyl	3-methylbutyl
488	3-methylbutyl	3-methylbutyl
489	cyclopropylmethyl	3-methylbutyl
490	cyclobutylmethyl	3-methylbutyl
491	cyclopentylmethyl	3-methylbutyl
492	p-hydroxyphenylmethyl	3-methylbutyl
493	p-nitrophenylmethyl	3-methylbutyl
494	p-aminophenylmethyl	3-methylbutyl
495	"4-(N,N- dimethylamino)phenylmethyl"	3-methylbutyl
496	benzyl	2-methylbutyl
497	1-pyrollylmethyl	2-methylbutyl
498	1-pyrazolylmethyl	2-methylbutyl
499	1-imidazolylmethyl	2-methylbutyl
500	1-indolylmethyl	2-methylbutyl
501	1-triazolylmethyl	2-methylbutyl
502	1-tetrazolylmethyl	2-methylbutyl
503	2-pyridylmethyl	2-methylbutyl
504	3-pyridylmethyl	2-methylbutyl
505	4-pyridylmethyl	2-methylbutyl
506	cyclohexylmethyl	2-methylbutyl
507	2-naphthylmethyl	2-methylbutyl
508	3-naphthylmethyl	2-methylbutyl
509	2-thiophenylmethyl	2-methylbutyl
510	4-(1-methyl)piperidinyl- methyl	2-methylbutyl
511	"(3,4- methylenedioxyphenyl)methyl"	2-methylbutyl
512	2-thienylmethyl	2-methylbutyl
513	4-biphenylmethyl	2-methylbutyl
514	pyrimidinylmethyl	2-methylbutyl
515	2-benzothiazolylmethyl	2-methylbutyl
516	2-benzothiophenylmethyl	2-methylbutyl
517	2-thiomethylethyl	2-methylbutyl
518	2-thiomethylmethyl	2-methylbutyl
519	2-methylpropyl	2-methylbutyl
520	2-methylbutyl	2-methylbutyl

Table 3

521	3-methylbutyl	2-methylbutyl
522	cyclopropylmethyl	2-methylbutyl
523	cyclobutylmethyl	2-methylbutyl
524	cyclopentylmethyl	2-methylbutyl
525	p-hydroxyphenylmethyl	2-methylbutyl
526	p-nitrophenylmethyl	2-methylbutyl
527	p-aminophenylmethyl	2-methylbutyl
528	"4-(N,N-dimethylamino)phenylmethyl"	2-methylbutyl
529	benzyl	propargyl
530	1-pyrolylmethyl	propargyl
531	1-pyrazolylmethyl	propargyl
532	1-imidazolylmethyl	propargyl
533	1-indolylmethyl	propargyl
534	1-triazolylmethyl	propargyl
535	1-tetrazolylmethyl	propargyl
536	2-pyridylmethyl	propargyl
537	3-pyridylmethyl	propargyl
538	4-pyridylmethyl	propargyl
539	cyclohexylmethyl	propargyl
540	2-naphthylmethyl	propargyl
541	3-naphthylmethyl	propargyl
542	2-thiophenylmethyl	propargyl
543	4-(1-methyl)piperidinyl-methyl	propargyl
544	"(3,4-methylenedioxyphenyl)methyl"	propargyl
545	2-thienylmethyl	propargyl
546	4-biphenylmethyl	propargyl
547	pyrimidinylmethyl	propargyl
548	2-benzothiazolylmethyl	propargyl
549	2-benzothiophenylmethyl	propargyl
550	2-thiomethylethyl	propargyl
551	2-thiomethylmethyl	propargyl
552	2-methylpropyl	propargyl
553	2-methylbutyl	propargyl
554	3-methylbutyl	propargyl
555	cyclopropylmethyl	propargyl
556	cyclobutylmethyl	propargyl
557	cyclopentylmethyl	propargyl
558	p-hydroxyphenylmethyl	propargyl
559	p-nitrophenylmethyl	propargyl
560	p-aminophenylmethyl	propargyl
561	"4-(N,N-dimethylamino)phenylmethyl"	propargyl
562	benzyl	cyclobutyl
563	1-pyrolylmethyl	cyclobutyl
564	1-pyrazolylmethyl	cyclobutyl
565	1-imidazolylmethyl	cyclobutyl
566	1-indolylmethyl	cyclobutyl
567	1-triazolylmethyl	cyclobutyl
568	1-tetrazolylmethyl	cyclobutyl
569	2-pyridylmethyl	cyclobutyl
570	3-pyridylmethyl	cyclobutyl

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571	4-pyridylmethyl	cyclobutyl
572	cyclohexylmethyl	cyclobutyl
573	2-naphthylmethyl	cyclobutyl
574	3-naphthylmethyl	cyclobutyl
575	2-thiophenylmethyl	cyclobutyl
576	4-(1-methyl)piperidinyl- methyl	cyclobutyl
577	"(3,4- methylenedioxyphenyl)methyl"	cyclobutyl
578	2-thienylmethyl	cyclobutyl
579	4-biphenylmethyl	cyclobutyl
580	pyrimidinylmethyl	cyclobutyl
581	2-benzothiazolylmethyl	cyclobutyl
582	2-benzothiophenylmethyl	cyclobutyl
583	2-thiomethylethyl	cyclobutyl
584	2-thiomethylmethyl	cyclobutyl
585	2-methylpropyl	cyclobutyl
586	2-methylbutyl	cyclobutyl
587	3-methylbutyl	cyclobutyl
588	cyclopropylmethyl	cyclobutyl
589	cyclobutylmethyl	cyclobutyl
590	cyclopentylmethyl	cyclobutyl
591	p-hydroxyphenylmethyl	cyclobutyl
592	p-nitrophenylmethyl	cyclobutyl
593	p-aminophenylmethyl	cyclobutyl
594	"4-(N,N- dimethylamino)phenylmethyl"	cyclobutyl
595	benzyl	cyclobutylmethyl
596	1-pyrollylmethyl	cyclobutylmethyl
597	1-pyrazolylmethyl	cyclobutylmethyl
598	1-imidazolylmethyl	cyclobutylmethyl
599	1-indolylmethyl	cyclobutylmethyl
600	1-triazolylmethyl	cyclobutylmethyl
601	1-tetrazolylmethyl	cyclobutylmethyl
602	2-pyridylmethyl	cyclobutylmethyl
603	3-pyridylmethyl	cyclobutylmethyl
604	4-pyridylmethyl	cyclobutylmethyl
605	cyclohexylmethyl	cyclobutylmethyl
606	2-naphthylmethyl	cyclobutylmethyl
607	3-naphthylmethyl	cyclobutylmethyl
608	2-thiophenylmethyl	cyclobutylmethyl
609	4-(1-methyl)piperidinyl- methyl	cyclobutylmethyl
610	"(3,4- methylenedioxyphenyl)methyl"	cyclobutylmethyl
611	2-thienylmethyl	cyclobutylmethyl
612	4-biphenylmethyl	cyclobutylmethyl
613	pyrimidinylmethyl	cyclobutylmethyl
614	2-benzothiazolylmethyl	cyclobutylmethyl
615	2-benzothiophenylmethyl	cyclobutylmethyl
616	2-thiomethylethyl	cyclobutylmethyl
617	2-thiomethylmethyl	cyclobutylmethyl
618	2-methylpropyl	cyclobutylmethyl
619	2-methylbutyl	cyclobutylmethyl

Table 3

620	3-methylbutyl	cyclobutylmethyl
621	cyclopropylmethyl	cyclobutylmethyl
622	cyclobutylmethyl	cyclobutylmethyl
623	cyclopentylmethyl	cyclobutylmethyl
624	p-hydroxyphenylmethyl	cyclobutylmethyl
625	p-nitrophenylmethyl	cyclobutylmethyl
626	p-aminophenylmethyl	cyclobutylmethyl
627	"4-(N,N-dimethylamino)phenylmethyl"	cyclobutylmethyl
628	benzyl	cyclopentyl
629	1-pyrolylmethyl	cyclopentyl
630	1-pyrazolylmethyl	cyclopentyl
631	1-imidazolylmethyl	cyclopentyl
632	1-indolylmethyl	cyclopentyl
633	1-triazolylmethyl	cyclopentyl
634	1-tetrazolylmethyl	cyclopentyl
635	2-pyridylmethyl	cyclopentyl
636	3-pyridylmethyl	cyclopentyl
637	4-pyridylmethyl	cyclopentyl
638	cyclohexylmethyl	cyclopentyl
639	2-naphthylmethyl	cyclopentyl
640	3-naphthylmethyl	cyclopentyl
641	2-thiophenylmethyl	cyclopentyl
642	4-(1-methyl)piperidinyl-methyl	cyclopentyl
643	"(3,4-methylenedioxyphenyl)methyl"	cyclopentyl
644	2-thienylmethyl	cyclopentyl
645	4-biphenylmethyl	cyclopentyl
646	pyrimidinylmethyl	cyclopentyl
647	2-benzothiazolylmethyl	cyclopentyl
648	2-benzothiophenylmethyl	cyclopentyl
649	2-thiomethylethyl	cyclopentyl
650	2-thiomethylmethyl	cyclopentyl
651	2-methylpropyl	cyclopentyl
652	2-methylbutyl	cyclopentyl
653	3-methylbutyl	cyclopentyl
654	cyclopropylmethyl	cyclopentyl
655	cyclobutylmethyl	cyclopentyl
656	cyclopentylmethyl	cyclopentyl
657	p-hydroxyphenylmethyl	cyclopentyl
658	p-nitrophenylmethyl	cyclopentyl
659	p-aminophenylmethyl	cyclopentyl
660	"4-(N,N-dimethylamino)phenylmethyl"	cyclopentyl
661	benzyl	cyclopentylmethyl
662	1-pyrolylmethyl	cyclopentylmethyl
663	1-pyrazolylmethyl	cyclopentylmethyl
664	1-imidazolylmethyl	cyclopentylmethyl
665	1-indolylmethyl	cyclopentylmethyl
666	1-triazolylmethyl	cyclopentylmethyl
667	1-tetrazolylmethyl	cyclopentylmethyl
668	2-pyridylmethyl	cyclopentylmethyl
669	3-pyridylmethyl	cyclopentylmethyl

Table 3

670	4-pyridylmethyl	cyclopentylmethyl
671	cyclohexylmethyl	cyclopentylmethyl
672	2-naphthylmethyl	cyclopentylmethyl
673	3-naphthylmethyl	cyclopentylmethyl
674	2-thiophenylmethyl	cyclopentylmethyl
675	4-(1-methyl)piperidinyl-	cyclopentylmethyl
	methyl	
676	"(3,4-	cyclopentylmethyl
	methylenedioxyphenyl)methyl"	
677	2-thienylmethyl	cyclopentylmethyl
678	4-biphenylmethyl	cyclopentylmethyl
679	pyrimidinylmethyl	cyclopentylmethyl
680	2-benzothiazolylmethyl	cyclopentylmethyl
681	2-benzothiophenylmethyl	cyclopentylmethyl
682	2-thiomethylethyl	cyclopentylmethyl
683	2-thiomethylmethyl	cyclopentylmethyl
684	2-methylpropyl	cyclopentylmethyl
685	2-methylbutyl	cyclopentylmethyl
686	3-methylbutyl	cyclopentylmethyl
687	cyclopropylmethyl	cyclopentylmethyl
688	cyclobutylmethyl	cyclopentylmethyl
689	cyclopentylmethyl	cyclopentylmethyl
690	p-hydroxyphenylmethyl	cyclopentylmethyl
691	p-nitrophenylmethyl	cyclopentylmethyl
692	p-aminophenylmethyl	cyclopentylmethyl
693	"4-(N,N-	cyclopentylmethyl
	dimethylamino)phenylmethyl"	
694	benzyl	1-hexyl
695	1-pyrollylmethyl	1-hexyl
696	1-pyrazolylmethyl	1-hexyl
697	1-imidazolylmethyl	1-hexyl
698	1-indolylmethyl	1-hexyl
699	1-triazolylmethyl	1-hexyl
700	1-tetrazolylmethyl	1-hexyl
701	2-pyridylmethyl	1-hexyl
702	3-pyridylmethyl	1-hexyl
703	4-pyridylmethyl	1-hexyl
704	cyclohexylmethyl	1-hexyl
705	2-naphthylmethyl	1-hexyl
706	3-naphthylmethyl	1-hexyl
707	2-thiophenylmethyl	1-hexyl
708	4-(1-methyl)piperidinyl-	1-hexyl
	methyl	
709	"(3,4-	1-hexyl
	methylenedioxyphenyl)methyl"	
710	2-thienylmethyl	1-hexyl
711	4-biphenylmethyl	1-hexyl
712	pyrimidinylmethyl	1-hexyl
713	2-benzothiazolylmethyl	1-hexyl
714	2-benzothiophenylmethyl	1-hexyl
715	2-thiomethylethyl	1-hexyl
716	2-thiomethylmethyl	1-hexyl
717	2-methylpropyl	1-hexyl
718	2-methylbutyl	1-hexyl

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719	3-methylbutyl	1-hexyl
720	cyclopropylmethyl	1-hexyl
721	cyclobutylmethyl	1-hexyl
722	cyclopentylmethyl	1-hexyl
723	p-hydroxyphenylmethyl	1-hexyl
724	p-nitrophenylmethyl	1-hexyl
725	p-aminophenylmethyl	1-hexyl
726	"4-(N,N-dimethylamino)phenylmethyl"	1-hexyl
727	benzyl	4-methylpentyl
728	1-pyrolylmethyl	4-methylpentyl
729	1-pyrazolylmethyl	4-methylpentyl
730	1-imidazolylmethyl	4-methylpentyl
731	1-indolylmethyl	4-methylpentyl
732	1-triazolylmethyl	4-methylpentyl
733	1-tetrazolylmethyl	4-methylpentyl
734	2-pyridylmethyl	4-methylpentyl
735	3-pyridylmethyl	4-methylpentyl
736	4-pyridylmethyl	4-methylpentyl
737	cyclohexylmethyl	4-methylpentyl
738	2-naphthylmethyl	4-methylpentyl
739	3-naphthylmethyl	4-methylpentyl
740	2-thiophenylmethyl	4-methylpentyl
741	4-(1-methyl)piperidinyl-methyl	4-methylpentyl
742	"(3,4-methylenedioxyphenyl)methyl"	4-methylpentyl
743	2-thienylmethyl	4-methylpentyl
744	4-biphenylmethyl	4-methylpentyl
745	pyrimidinylmethyl	4-methylpentyl
746	2-benzothiazolylmethyl	4-methylpentyl
747	2-benzothiophenylmethyl	4-methylpentyl
748	2-thiomethylethyl	4-methylpentyl
749	2-thiomethylmethyl	4-methylpentyl
750	2-methylpropyl	4-methylpentyl
751	2-methylbutyl	4-methylpentyl
752	3-methylbutyl	4-methylpentyl
753	cyclopropylmethyl	4-methylpentyl
754	cyclobutylmethyl	4-methylpentyl
755	cyclopentylmethyl	4-methylpentyl
756	p-hydroxyphenylmethyl	4-methylpentyl
757	p-nitrophenylmethyl	4-methylpentyl
758	p-aminophenylmethyl	4-methylpentyl
759	"4-(N,N-dimethylamino)phenylmethyl"	4-methylpentyl
760	benzyl	3-methylpentyl
761	1-pyrolylmethyl	3-methylpentyl
762	1-pyrazolylmethyl	3-methylpentyl
763	1-imidazolylmethyl	3-methylpentyl
764	1-indolylmethyl	3-methylpentyl
765	1-triazolylmethyl	3-methylpentyl
766	1-tetrazolylmethyl	3-methylpentyl
767	2-pyridylmethyl	3-methylpentyl
768	3-pyridylmethyl	3-methylpentyl

Table 3

818	3-methylbutyl	isopropyl
819	cyclopropylmethyl	isopropyl
820	cyclobutylmethyl	isopropyl
821	cyclopentylmethyl	isopropyl
822	p-hydroxyphenylmethyl	isopropyl
823	p-nitrophenylmethyl	isopropyl
824	p-aminophenylmethyl	isopropyl
825	"4-(N,N-dimethylamino)phenylmethyl"	isopropyl
826	benzyl	3-methylbutyl
827	1-pyrolylmethyl	3-methylbutyl
828	1-pyrazolylmethyl	3-methylbutyl
829	1-imidazolylmethyl	3-methylbutyl
830	1-indolylmethyl	3-methylbutyl
831	1-triazolylmethyl	3-methylbutyl
832	1-tetrazolylmethyl	3-methylbutyl
833	2-pyridylmethyl	3-methylbutyl
834	3-pyridylmethyl	3-methylbutyl
835	4-pyridylmethyl	3-methylbutyl
836	cyclohexylmethyl	3-methylbutyl
837	2-naphthylmethyl	3-methylbutyl
838	3-naphthylmethyl	3-methylbutyl
839	2-thiophenylmethyl	3-methylbutyl
840	4-(1-methyl)piperidinyl-methyl	3-methylbutyl
841	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl
842	2-thienylmethyl	3-methylbutyl
843	4-biphenylmethyl	3-methylbutyl
844	pyrimidinylmethyl	3-methylbutyl
845	2-benzothiazolylmethyl	3-methylbutyl
846	2-benzothiophenylmethyl	3-methylbutyl
847	2-thiomethylethyl	3-methylbutyl
848	2-thiomethylmethyl	3-methylbutyl
849	2-methylpropyl	3-methylbutyl
850	2-methylbutyl	3-methylbutyl
851	3-methylbutyl	3-methylbutyl
852	cyclopropylmethyl	3-methylbutyl
853	cyclobutylmethyl	3-methylbutyl
854	cyclopentylmethyl	3-methylbutyl
855	p-hydroxyphenylmethyl	3-methylbutyl
856	p-nitrophenylmethyl	3-methylbutyl
857	p-aminophenylmethyl	3-methylbutyl
858	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl
859	benzyl	2-phenylethyl
860	1-pyrolylmethyl	2-phenylethyl
861	1-pyrazolylmethyl	2-phenylethyl
862	1-imidazolylmethyl	2-phenylethyl
863	1-indolylmethyl	2-phenylethyl
864	1-triazolylmethyl	2-phenylethyl
865	1-tetrazolylmethyl	2-phenylethyl
866	2-pyridylmethyl	2-phenylethyl
867	3-pyridylmethyl	2-phenylethyl

Table 3

868	4-pyridylmethyl	2-phenylethyl
869	cyclohexylmethyl	2-phenylethyl
870	2-naphthylmethyl	2-phenylethyl
871	3-naphthylmethyl	2-phenylethyl
872	2-thiophenylmethyl	2-phenylethyl
873	4-(1-methyl)piperidinyl- methyl	2-phenylethyl
874	"(3,4- methylenedioxyphenyl)methyl"	2-phenylethyl
875	2-thienylmethyl	2-phenylethyl
876	4-biphenylmethyl	2-phenylethyl
877	pyrimidinylmethyl	2-phenylethyl
878	2-benzothiazolylmethyl	2-phenylethyl
879	2-benzothiophenylmethyl	2-phenylethyl
880	2-thiomethylethyl	2-phenylethyl
881	2-thiomethylmethyl	2-phenylethyl
882	2-methylpropyl	2-phenylethyl
883	2-methylbutyl	2-phenylethyl
884	3-methylbutyl	2-phenylethyl
885	cyclopropylmethyl	2-phenylethyl
886	cyclobutylmethyl	2-phenylethyl
887	cyclopentylmethyl	2-phenylethyl
888	p-hydroxyphenylmethyl	2-phenylethyl
889	p-nitrophenylmethyl	2-phenylethyl
890	p-aminophenylmethyl	2-phenylethyl
891	"4-(N,N- dimethylamino)phenylmethyl"	2-phenylethyl
892	benzyl	3-phenylpropyl
893	1-pyrollylmethyl	3-phenylpropyl
894	1-pyrazolylmethyl	3-phenylpropyl
895	1-imidazolylmethyl	3-phenylpropyl
896	1-indolylmethyl	3-phenylpropyl
897	1-triazolylmethyl	3-phenylpropyl
898	1-tetrazolylmethyl	3-phenylpropyl
899	2-pyridylmethyl	3-phenylpropyl
900	3-pyridylmethyl	3-phenylpropyl
901	4-pyridylmethyl	3-phenylpropyl
902	cyclohexylmethyl	3-phenylpropyl
903	2-naphthylmethyl	3-phenylpropyl
904	3-naphthylmethyl	3-phenylpropyl
905	2-thiophenylmethyl	3-phenylpropyl
906	4-(1-methyl)piperidinyl- methyl	3-phenylpropyl
907	"(3,4- methylenedioxyphenyl)methyl"	3-phenylpropyl
908	2-thienylmethyl	3-phenylpropyl
909	4-biphenylmethyl	3-phenylpropyl
910	pyrimidinylmethyl	3-phenylpropyl
911	2-benzothiazolylmethyl	3-phenylpropyl
912	2-benzothiophenylmethyl	3-phenylpropyl
913	2-thiomethylethyl	3-phenylpropyl
914	2-thiomethylmethyl	3-phenylpropyl
915	2-methylpropyl	3-phenylpropyl
916	2-methylbutyl	3-phenylpropyl

Table 3

917	3-methylbutyl	3-phenylpropyl
918	cyclopropylmethyl	3-phenylpropyl
919	cyclobutylmethyl	3-phenylpropyl
920	cyclopentylmethyl	3-phenylpropyl
921	p-hydroxyphenylmethyl	3-phenylpropyl
922	p-nitrophenylmethyl	3-phenylpropyl
923	p-aminophenylmethyl	3-phenylpropyl
924	"4-(N,N-dimethylamino)phenylmethyl"	3-phenylpropyl
925	benzyl	"2-(N,N-dimethylamino)ethyl"
926	1-pyrollylmethyl	"2-(N,N-dimethylamino)ethyl"
927	1-pyrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
928	1-imidazolylmethyl	"2-(N,N-dimethylamino)ethyl"
929	1-indolylmethyl	"2-(N,N-dimethylamino)ethyl"
930	1-triazolylmethyl	"2-(N,N-dimethylamino)ethyl"
931	1-tetrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
932	2-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
933	3-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
934	4-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
935	cyclohexylmethyl	"2-(N,N-dimethylamino)ethyl"
936	2-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
937	3-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
938	2-thiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
939	4-(1-methyl)piperidinyl-methyl	"2-(N,N-dimethylamino)ethyl"
940	"(3,4-methylenedioxyphenyl)methyl"	"2-(N,N-dimethylamino)ethyl"
941	2-thienylmethyl	"2-(N,N-dimethylamino)ethyl"
942	4-biphenylmethyl	"2-(N,N-dimethylamino)ethyl"
943	pyrimidinylmethyl	"2-(N,N-dimethylamino)ethyl"
944	2-benzothiazolylmethyl	"2-(N,N-dimethylamino)ethyl"
945	2-benzothiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
946	2-thiomethylethyl	"2-(N,N-dimethylamino)ethyl"
947	2-thiomethylmethyl	"2-(N,N-dimethylamino)ethyl"
948	2-methylpropyl	"2-(N,N-dimethylamino)ethyl"
949	2-methylbutyl	"2-(N,N-dimethylamino)ethyl"
950	3-methylbutyl	"2-(N,N-dimethylamino)ethyl"
951	cyclopropylmethyl	"2-(N,N-dimethylamino)ethyl"
952	cyclobutylmethyl	"2-(N,N-dimethylamino)ethyl"
953	cyclopentylmethyl	"2-(N,N-dimethylamino)ethyl"
954	p-hydroxyphenylmethyl	"2-(N,N-dimethylamino)ethyl"
955	p-nitrophenylmethyl	"2-(N,N-dimethylamino)ethyl"
956	p-aminophenylmethyl	"2-(N,N-dimethylamino)ethyl"
957	"4-(N,N-dimethylamino)phenylmethyl"	"2-(N,N-dimethylamino)ethyl"
958	benzyl	3-oxetanylmethyl
959	1-pyrollylmethyl	3-oxetanylmethyl
960	1-pyrazolylmethyl	3-oxetanylmethyl
961	1-imidazolylmethyl	3-oxetanylmethyl
962	1-indolylmethyl	3-oxetanylmethyl
963	1-triazolylmethyl	3-oxetanylmethyl
964	1-tetrazolylmethyl	3-oxetanylmethyl
965	2-pyridylmethyl	3-oxetanylmethyl
966	3-pyridylmethyl	3-oxetanylmethyl

Table 3

967	4-pyridylmethyl	3-oxetanylmethyl
968	cyclohexylmethyl	3-oxetanylmethyl
969	2-naphthylmethyl	3-oxetanylmethyl
970	3-naphthylmethyl	3-oxetanylmethyl
971	2-thiophenylmethyl	3-oxetanylmethyl
972	4-(1-methyl)piperidinyl- methyl	3-oxetanylmethyl
973	"(3,4- methylenedioxyphenyl)methyl"	3-oxetanylmethyl
974	2-thienylmethyl	3-oxetanylmethyl
975	4-biphenylmethyl	3-oxetanylmethyl
976	pyrimidinylmethyl	3-oxetanylmethyl
977	2-benzothiazolylmethyl	3-oxetanylmethyl
978	2-benzothiophenylmethyl	3-oxetanylmethyl
979	2-thiomethylethyl	3-oxetanylmethyl
980	2-thiomethylmethyl	3-oxetanylmethyl
981	2-methylpropyl	3-oxetanylmethyl
982	2-methylbutyl	3-oxetanylmethyl
983	3-methylbutyl	3-oxetanylmethyl
984	cyclopropylmethyl	3-oxetanylmethyl
985	cyclobutylmethyl	3-oxetanylmethyl
986	cyclopentylmethyl	3-oxetanylmethyl
987	p-hydroxyphenylmethyl	3-oxetanylmethyl
988	p-nitrophenylmethyl	3-oxetanylmethyl
989	p-aminophenylmethyl	3-oxetanylmethyl
990	"4-(N,N- dimethylamino)phenylmethyl"	3-oxetanylmethyl
991	benzyl	2-tetrahydrofuranyl
992	1-pyrollylmethyl	2-tetrahydrofuranyl
993	1-pyrazolylmethyl	2-tetrahydrofuranyl
994	1-imidazolylmethyl	2-tetrahydrofuranyl
995	1-indolylmethyl	2-tetrahydrofuranyl
996	1-triazolylmethyl	2-tetrahydrofuranyl
997	1-tetrazolylmethyl	2-tetrahydrofuranyl
998	2-pyridylmethyl	2-tetrahydrofuranyl
999	3-pyridylmethyl	2-tetrahydrofuranyl
1000	4-pyridylmethyl	2-tetrahydrofuranyl
1001	cyclohexylmethyl	2-tetrahydrofuranyl
1002	2-naphthylmethyl	2-tetrahydrofuranyl
1003	3-naphthylmethyl	2-tetrahydrofuranyl
1004	2-thiophenylmethyl	2-tetrahydrofuranyl
1005	4-(1-methyl)piperidinyl- methyl	2-tetrahydrofuranyl
1006	"(3,4- methylenedioxyphenyl)methyl"	2-tetrahydrofuranyl
1007	2-thienylmethyl	2-tetrahydrofuranyl
1008	4-biphenylmethyl	2-tetrahydrofuranyl
1009	pyrimidinylmethyl	2-tetrahydrofuranyl
1010	2-benzothiazolylmethyl	2-tetrahydrofuranyl
1011	2-benzothiophenylmethyl	2-tetrahydrofuranyl
1012	2-thiomethylethyl	2-tetrahydrofuranyl
1013	2-thiomethylmethyl	2-tetrahydrofuranyl
1014	2-methylpropyl	2-tetrahydrofuranyl
1015	2-methylbutyl	2-tetrahydrofuranyl

Table 3

1016	3-methylbutyl	2-tetrahydrofuranyl
1017	cyclopropylmethyl	2-tetrahydrofuranyl
1018	cyclobutylmethyl	2-tetrahydrofuranyl
1019	cyclopentylmethyl	2-tetrahydrofuranyl
1020	p-hydroxyphenylmethyl	2-tetrahydrofuranyl
1021	p-nitrophenylmethyl	2-tetrahydrofuranyl
1022	p-aminophenylmethyl	2-tetrahydrofuranyl
1023	"4-(N,N-dimethylamino)phenylmethyl"	2-tetrahydrofuranyl
1024	benzyl	2-methoxypropyl
1025	1-pyrolylmethyl	2-methoxypropyl
1026	1-pyrazolylmethyl	2-methoxypropyl
1027	1-imidazolylmethyl	2-methoxypropyl
1028	1-indolylmethyl	2-methoxypropyl
1029	1-triazolylmethyl	2-methoxypropyl
1030	1-tetrazolylmethyl	2-methoxypropyl
1031	2-pyridylmethyl	2-methoxypropyl
1032	3-pyridylmethyl	2-methoxypropyl
1033	4-pyridylmethyl	2-methoxypropyl
1034	cyclohexylmethyl	2-methoxypropyl
1035	2-naphthylmethyl	2-methoxypropyl
1036	3-naphthylmethyl	2-methoxypropyl
1037	2-thiophenylmethyl	2-methoxypropyl
1038	4-(1-methyl)piperidinyl-methyl	2-methoxypropyl
1039	"(3,4-methylenedioxyphenyl)methyl"	2-methoxypropyl
1040	2-thienylmethyl	2-methoxypropyl
1041	4-biphenylmethyl	2-methoxypropyl
1042	pyrimidinylmethyl	2-methoxypropyl
1043	2-benzothiazolylmethyl	2-methoxypropyl
1044	2-benzothiophenylmethyl	2-methoxypropyl
1045	2-thiomethylethyl	2-methoxypropyl
1046	2-thiomethylmethyl	2-methoxypropyl
1047	2-methylpropyl	2-methoxypropyl
1048	2-methylbutyl	2-methoxypropyl
1049	3-methylbutyl	2-methoxypropyl
1050	cyclopropylmethyl	2-methoxypropyl
1051	cyclobutylmethyl	2-methoxypropyl
1052	cyclopentylmethyl	2-methoxypropyl
1053	p-hydroxyphenylmethyl	2-methoxypropyl
1054	p-nitrophenylmethyl	2-methoxypropyl
1055	p-aminophenylmethyl	2-methoxypropyl
1056	"4-(N,N-dimethylamino)phenylmethyl"	2-methoxypropyl
1057	benzyl	2-ethoxyethyl
1058	1-pyrolylmethyl	2-ethoxyethyl
1059	1-pyrazolylmethyl	2-ethoxyethyl
1060	1-imidazolylmethyl	2-ethoxyethyl
1061	1-indolylmethyl	2-ethoxyethyl
1062	1-triazolylmethyl	2-ethoxyethyl
1063	1-tetrazolylmethyl	2-ethoxyethyl
1064	2-pyridylmethyl	2-ethoxyethyl
1065	3-pyridylmethyl	2-ethoxyethyl

Table 3

1066	4-pyridylmethyl	2-ethoxyethyl
1067	cyclohexylmethyl	2-ethoxyethyl
1068	2-naphthylmethyl	2-ethoxyethyl
1069	3-naphthylmethyl	2-ethoxyethyl
1070	2-thiophenylmethyl	2-ethoxyethyl
1071	4-(1-methyl)piperidinyl-methyl	2-ethoxyethyl
1072	"(3,4-methylenedioxyphenyl)methyl"	2-ethoxyethyl
1073	2-thienylmethyl	2-ethoxyethyl
1074	4-biphenylmethyl	2-ethoxyethyl
1075	pyrimidinylmethyl	2-ethoxyethyl
1076	2-benzothiazolylmethyl	2-ethoxyethyl
1077	2-benzothiophenylmethyl	2-ethoxyethyl
1078	2-thiomethylethyl	2-ethoxyethyl
1079	2-thiomethylmethyl	2-ethoxyethyl
1080	2-methylpropyl	2-ethoxyethyl
1081	2-methylbutyl	2-ethoxyethyl
1082	3-methylbutyl	2-ethoxyethyl
1083	cyclopropylmethyl	2-ethoxyethyl
1084	cyclobutylmethyl	2-ethoxyethyl
1085	cyclopentylmethyl	2-ethoxyethyl
1086	p-hydroxyphenylmethyl	2-ethoxyethyl
1087	p-nitrophenylmethyl	2-ethoxyethyl
1088	p-aminophenylmethyl	2-ethoxyethyl
1089	"4-(N,N-dimethylamino)phenylmethyl"	2-ethoxyethyl
1090	benzyl	2-(1-pyrolyl)ethyl
1091	1-pyrollylmethyl	2-(1-pyrolyl)ethyl
1092	1-pyrazolylmethyl	2-(1-pyrolyl)ethyl
1093	1-imidazolylmethyl	2-(1-pyrolyl)ethyl
1094	1-indolylmethyl	2-(1-pyrolyl)ethyl
1095	1-triazolylmethyl	2-(1-pyrolyl)ethyl
1096	1-tetrazolylmethyl	2-(1-pyrolyl)ethyl
1097	2-pyridylmethyl	2-(1-pyrolyl)ethyl
1098	3-pyridylmethyl	2-(1-pyrolyl)ethyl
1099	4-pyridylmethyl	2-(1-pyrolyl)ethyl
1100	cyclohexylmethyl	2-(1-pyrolyl)ethyl
1101	2-naphthylmethyl	2-(1-pyrolyl)ethyl
1102	3-naphthylmethyl	2-(1-pyrolyl)ethyl
1103	2-thiophenylmethyl	2-(1-pyrolyl)ethyl
1104	4-(1-methyl)piperidinyl-methyl	2-(1-pyrolyl)ethyl
1105	"(3,4-methylenedioxyphenyl)methyl"	2-(1-pyrolyl)ethyl
1106	2-thienylmethyl	2-(1-pyrolyl)ethyl
1107	4-biphenylmethyl	2-(1-pyrolyl)ethyl
1108	pyrimidinylmethyl	2-(1-pyrolyl)ethyl
1109	2-benzothiazolylmethyl	2-(1-pyrolyl)ethyl
1110	2-benzothiophenylmethyl	2-(1-pyrolyl)ethyl
1111	2-thiomethylethyl	2-(1-pyrolyl)ethyl
1112	2-thiomethylmethyl	2-(1-pyrolyl)ethyl
1113	2-methylpropyl	2-(1-pyrolyl)ethyl
1114	2-methylbutyl	2-(1-pyrolyl)ethyl

Table 3

1115	3-methylbutyl	2-(1-pyrolyl)ethyl
1116	cyclopropylmethyl	2-(1-pyrolyl)ethyl
1117	cyclobutylmethyl	2-(1-pyrolyl)ethyl
1118	cyclopentylmethyl	2-(1-pyrolyl)ethyl
1119	p-hydroxyphenylmethyl	2-(1-pyrolyl)ethyl
1120	p-nitrophenylmethyl	2-(1-pyrolyl)ethyl
1121	p-aminophenylmethyl	2-(1-pyrolyl)ethyl
1122	"4-(N,N-dimethylamino)phenylmethyl"	2-(1-pyrolyl)ethyl
1123	benzyl	2-(1-imidazolyl)ethyl
1124	1-pyrolylmethyl	2-(1-imidazolyl)ethyl
1125	1-pyrazolylmethyl	2-(1-imidazolyl)ethyl
1126	1-imidazolylmethyl	2-(1-imidazolyl)ethyl
1127	1-indolylmethyl	2-(1-imidazolyl)ethyl
1128	1-triazolylmethyl	2-(1-imidazolyl)ethyl
1129	1-tetrazolylmethyl	2-(1-imidazolyl)ethyl
1130	2-pyridylmethyl	2-(1-imidazolyl)ethyl
1131	3-pyridylmethyl	2-(1-imidazolyl)ethyl
1132	4-pyridylmethyl	2-(1-imidazolyl)ethyl
1133	cyclohexylmethyl	2-(1-imidazolyl)ethyl
1134	2-naphthylmethyl	2-(1-imidazolyl)ethyl
1135	3-naphthylmethyl	2-(1-imidazolyl)ethyl
1136	2-thiophenylmethyl	2-(1-imidazolyl)ethyl
1137	4-(1-methyl)piperidinylmethyl	2-(1-imidazolyl)ethyl
1138	"(3,4-methylenedioxyphenyl)methyl"	2-(1-imidazolyl)ethyl
1139	2-thienylmethyl	2-(1-imidazolyl)ethyl
1140	4-biphenylmethyl	2-(1-imidazolyl)ethyl
1141	pyrimidinylmethyl	2-(1-imidazolyl)ethyl
1142	2-benzothiazolylmethyl	2-(1-imidazolyl)ethyl
1143	2-benzothiophenylmethyl	2-(1-imidazolyl)ethyl
1144	2-thiomethylethyl	2-(1-imidazolyl)ethyl
1145	2-thiomethylmethyl	2-(1-imidazolyl)ethyl
1146	2-methylpropyl	2-(1-imidazolyl)ethyl
1147	2-methylbutyl	2-(1-imidazolyl)ethyl
1148	3-methylbutyl	2-(1-imidazolyl)ethyl
1149	cyclopropylmethyl	2-(1-imidazolyl)ethyl
1150	cyclobutylmethyl	2-(1-imidazolyl)ethyl
1151	cyclopentylmethyl	2-(1-imidazolyl)ethyl
1152	p-hydroxyphenylmethyl	2-(1-imidazolyl)ethyl
1153	p-nitrophenylmethyl	2-(1-imidazolyl)ethyl
1154	p-aminophenylmethyl	2-(1-imidazolyl)ethyl
1155	"4-(N,N-dimethylamino)phenylmethyl"	2-(1-imidazolyl)ethyl
1156	benzyl	2-pyridylmethyl
1157	1-pyrolylmethyl	2-pyridylmethyl
1158	1-pyrazolylmethyl	2-pyridylmethyl
1159	1-imidazolylmethyl	2-pyridylmethyl
1160	1-indolylmethyl	2-pyridylmethyl
1161	1-triazolylmethyl	2-pyridylmethyl
1162	1-tetrazolylmethyl	2-pyridylmethyl
1163	2-pyridylmethyl	2-pyridylmethyl
1164	3-pyridylmethyl	2-pyridylmethyl

Table 3

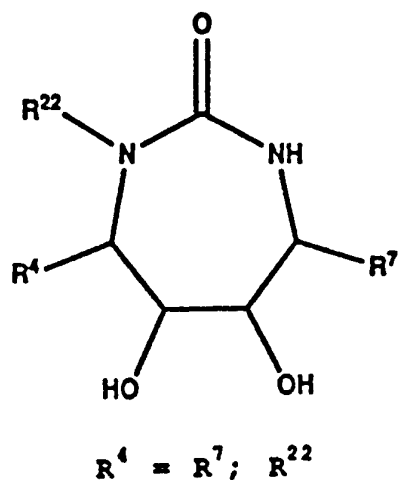
1165	4-pyridylmethyl	2-pyridylmethyl
1166	cyclohexylmethyl	2-pyridylmethyl
1167	2-naphthylmethyl	2-pyridylmethyl
1168	3-naphthylmethyl	2-pyridylmethyl
1169	2-thiophenylmethyl	2-pyridylmethyl
1170	4-(1-methyl)piperidinyl-methyl	2-pyridylmethyl
1171	"(3,4-methylenedioxyphenyl)methyl"	2-pyridylmethyl
1172	2-thienylmethyl	2-pyridylmethyl
1173	4-biphenylmethyl	2-pyridylmethyl
1174	pyrimidinylmethyl	2-pyridylmethyl
1175	2-benzothiazolylmethyl	2-pyridylmethyl
1176	2-benzothiophenylmethyl	2-pyridylmethyl
1177	2-thiomethylethyl	2-pyridylmethyl
1178	2-thiomethylmethyl	2-pyridylmethyl
1179	2-methylpropyl	2-pyridylmethyl
1180	2-methylbutyl	2-pyridylmethyl
1181	3-methylbutyl	2-pyridylmethyl
1182	cyclopropylmethyl	2-pyridylmethyl
1183	cyclobutylmethyl	2-pyridylmethyl
1184	cyclopentylmethyl	2-pyridylmethyl
1185	p-hydroxyphenylmethyl	2-pyridylmethyl
1186	p-nitrophenylmethyl	2-pyridylmethyl
1187	p-aminophenylmethyl	2-pyridylmethyl
1188	"4-(N,N-dimethylamino)phenylmethyl"	2-pyridylmethyl
1189	benzyl	2-thiomethylethyl
1190	1-pyrollylmethyl	2-thiomethylethyl
1191	1-pyrazolylmethyl	2-thiomethylethyl
1192	1-imidazolylmethyl	2-thiomethylethyl
1193	1-indolylmethyl	2-thiomethylethyl
1194	1-triazolylmethyl	2-thiomethylethyl
1195	1-tetrazolylmethyl	2-thiomethylethyl
1196	2-pyridylmethyl	2-thiomethylethyl
1197	3-pyridylmethyl	2-thiomethylethyl
1198	4-pyridylmethyl	2-thiomethylethyl
1199	cyclohexylmethyl	2-thiomethylethyl
1200	2-naphthylmethyl	2-thiomethylethyl
1201	3-naphthylmethyl	2-thiomethylethyl
1202	2-thiophenylmethyl	2-thiomethylethyl
1203	4-(1-methyl)piperidinyl-methyl	2-thiomethylethyl
1204	"(3,4-methylenedioxyphenyl)methyl"	2-thiomethylethyl
1205	2-thienylmethyl	2-thiomethylethyl
1206	4-biphenylmethyl	2-thiomethylethyl
1207	pyrimidinylmethyl	2-thiomethylethyl
1208	2-benzothiazolylmethyl	2-thiomethylethyl
1209	2-benzothiophenylmethyl	2-thiomethylethyl
1210	2-thiomethylethyl	2-thiomethylethyl
1211	2-thiomethylmethyl	2-thiomethylethyl
1212	2-methylpropyl	2-thiomethylethyl
1213	2-methylbutyl	2-thiomethylethyl

Table 3

1214	3-methylbutyl	2-thiomethylethyl
1215	cyclopropylmethyl	2-thiomethylethyl
1216	cyclobutylmethyl	2-thiomethylethyl
1217	cyclopentylmethyl	2-thiomethylethyl
1218	p-hydroxyphenylmethyl	2-thiomethylethyl
1219	p-nitrophenylmethyl	2-thiomethylethyl
1220	p-aminophenylmethyl	2-thiomethylethyl
1221	"4-(N,N-dimethylamino)phenylmethyl"	2-thiomethylethyl

Table 4

TABLE 4



Example $R^4 = R^7$		R^{22}
Number		
1222	benzyl	allyl
1223	1-pyrolylmethyl	allyl
1224	1-pyrazolylmethyl	allyl
1225	1-imidazolylmethyl	allyl
1226	1-indolylmethyl	allyl
1227	1-triazolylmethyl	allyl
1228	1-tetrazolylmethyl	allyl
1229	2-pyridylmethyl	allyl
1230	3-pyridylmethyl	allyl
1231	4-pyridylmethyl	allyl
1232	cyclohexylmethyl	allyl
1233	2-naphthylmethyl	allyl
1234	3-naphthylmethyl	allyl
1235	2-thiophenylmethyl	allyl
1236	4-(1-methyl)piperidinyl-	allyl
	methyl	
1237	"(3,4-methylenedioxyphenyl)methyl"	allyl
1238	2-thienylmethyl	allyl
1239	4-biphenylmethyl	allyl
1240	pyrimidinylmethyl	allyl
1241	2-benzothiazolylmethyl	allyl
1242	2-benzothiophenylmethyl	allyl
1243	2-thiomethylethyl	allyl
1244	2-thiomethylmethyl	allyl
1245	2-methylpropyl	allyl
1246	2-methylbutyl	allyl
1247	3-methylbutyl	allyl
1248	cyclopropylmethyl	allyl
1249	cyclobutylmethyl	allyl
1250	cyclopentylmethyl	allyl

Table 4

1251	p-hydroxyphenylmethyl	allyl
1252	p-nitrophenylmethyl	allyl
1253	p-aminophenylmethyl	allyl
1254	"4-(N,N-dimethylamino)phenylmethyl"	allyl
1255	benzyl	propyl
1256	1-pyrolylmethyl	propyl
1257	1-pyrazolylmethyl	propyl
1258	1-imidazolylmethyl	propyl
1259	1-indolylmethyl	propyl
1260	1-triazolylmethyl	propyl
1261	1-tetrazolylmethyl	propyl
1262	2-pyridylmethyl	propyl
1263	3-pyridylmethyl	propyl
1264	4-pyridylmethyl	propyl
1265	cyclohexylmethyl	propyl
1266	2-naphthylmethyl	propyl
1267	3-naphthylmethyl	propyl
1268	2-thiophenylmethyl	propyl
1269	4-(1-methyl)piperidinyl-methyl	propyl
1270	"(3,4-methylenedioxyphenyl)methyl"	propyl
1271	2-thienylmethyl	propyl
1272	4-biphenylmethyl	propyl
1273	pyrimidinylmethyl	propyl
1274	2-benzothiazolylmethyl	propyl
1275	2-benzothiophenylmethyl	propyl
1276	2-thiomethylethyl	propyl
1277	2-thiomethylmethyl	propyl
1278	2-methylpropyl	propyl
1279	2-methylbutyl	propyl
1280	3-methylbutyl	propyl
1281	cyclopropylmethyl	propyl
1282	cyclobutylmethyl	propyl
1283	cyclopentylmethyl	propyl
1284	p-hydroxyphenylmethyl	propyl
1285	p-nitrophenylmethyl	propyl
1286	p-aminophenylmethyl	propyl
1287	"4-(N,N-dimethylamino)phenylmethyl"	propyl
1288	benzyl	n-butyl
1289	1-pyrolylmethyl	n-butyl
1290	1-pyrazolylmethyl	n-butyl
1291	1-imidazolylmethyl	n-butyl
1292	1-indolylmethyl	n-butyl
1293	1-triazolylmethyl	n-butyl
1294	1-tetrazolylmethyl	n-butyl
1295	2-pyridylmethyl	n-butyl
1296	3-pyridylmethyl	n-butyl
1297	4-pyridylmethyl	n-butyl
1298	cyclohexylmethyl	n-butyl
1299	2-naphthylmethyl	n-butyl
1300	3-naphthylmethyl	n-butyl
1301	2-thiophenylmethyl	n-butyl
1302	4-(1-methyl)piperidinyl-methyl	n-butyl

Table 4

1303	"(3,4-methylenedioxyphenyl)methyl"	n-butyl
1304	2-thienylmethyl	n-butyl
1305	4-biphenylmethyl	n-butyl
1306	pyrimidinylmethyl	n-butyl
1307	2-benzothiazolylmethyl	n-butyl
1308	2-benzothiophenylmethyl	n-butyl
1309	2-thiomethylethyl	n-butyl
1310	2-thiomethylmethyl	n-butyl
1311	2-methylpropyl	n-butyl
1312	2-methylbutyl	n-butyl
1313	3-methylbutyl	n-butyl
1314	cyclopropylmethyl	n-butyl
1315	cyclobutylmethyl	n-butyl
1316	cyclopentylmethyl	n-butyl
1317	p-hydroxyphenylmethyl	n-butyl
1318	p-nitrophenylmethyl	n-butyl
1319	p-aminophenylmethyl	n-butyl
1320	"4-(N,N-dimethylamino)phenylmethyl"	n-butyl
1321	benzyl	isobutyl
1322	1-pyrollylmethyl	isobutyl
1323	1-pyrazolylmethyl	isobutyl
1324	1-imidazolylmethyl	isobutyl
1325	1-indolylmethyl	isobutyl
1326	1-triazolylmethyl	isobutyl
1327	1-tetrazolylmethyl	isobutyl
1328	2-pyridylmethyl	isobutyl
1329	3-pyridylmethyl	isobutyl
1330	4-pyridylmethyl	isobutyl
1331	cyclohexylmethyl	isobutyl
1332	2-naphthylmethyl	isobutyl
1333	3-naphthylmethyl	isobutyl
1334	2-thiophenylmethyl	isobutyl
1335	4-(1-methyl)piperidinyl-methyl	isobutyl
1336	"(3,4-methylenedioxyphenyl)methyl"	isobutyl
1337	2-thienylmethyl	isobutyl
1338	4-biphenylmethyl	isobutyl
1339	pyrimidinylmethyl	isobutyl
1340	2-benzothiazolylmethyl	isobutyl
1341	2-benzothiophenylmethyl	isobutyl
1342	2-thiomethylethyl	isobutyl
1343	2-thiomethylmethyl	isobutyl
1344	2-methylpropyl	isobutyl
1345	2-methylbutyl	isobutyl
1346	3-methylbutyl	isobutyl
1347	cyclopropylmethyl	isobutyl
1348	cyclobutylmethyl	isobutyl
1349	cyclopentylmethyl	isobutyl
1350	p-hydroxyphenylmethyl	isobutyl
1351	p-nitrophenylmethyl	isobutyl
1352	p-aminophenylmethyl	isobutyl
1353	"4-(N,N-dimethylamino)phenylmethyl"	isobutyl
1354	benzyl	2-butyl

Table 4

1355	1-pyrrolylmethyl	2-butyl
1356	1-pyrazolylmethyl	2-butyl
1357	1-imidazolylmethyl	2-butyl
1358	1-indolylmethyl	2-butyl
1359	1-triazolylmethyl	2-butyl
1360	1-tetrazolylmethyl	2-butyl
1361	2-pyridylmethyl	2-butyl
1362	3-pyridylmethyl	2-butyl
1363	4-pyridylmethyl	2-butyl
1364	cyclohexylmethyl	2-butyl
1365	2-naphthylmethyl	2-butyl
1366	3-naphthylmethyl	2-butyl
1367	2-thiophenylmethyl	2-butyl
1368	4-(1-methyl)piperidinyl- methyl	2-butyl
1369	"(3,4- methylenedioxyphenyl)methyl"	2-butyl
1370	2-thienylmethyl	2-butyl
1371	4-biphenylmethyl	2-butyl
1372	pyrimidinylmethyl	2-butyl
1373	2-benzothiazolylmethyl	2-butyl
1374	2-benzothiophenylmethyl	2-butyl
1375	2-thiomethylethyl	2-butyl
1376	2-thiomethylmethyl	2-butyl
1377	2-methylpropyl	2-butyl
1378	2-methylbutyl	2-butyl
1379	3-methylbutyl	2-butyl
1380	cyclopropylmethyl	2-butyl
1381	cyclobutylmethyl	2-butyl
1382	cyclopentylmethyl	2-butyl
1383	p-hydroxyphenylmethyl	2-butyl
1384	p-nitrophenylmethyl	2-butyl
1385	p-aminophenylmethyl	2-butyl
1386	"4-(N,N- dimethylamino)phenylmethyl"	2-butyl
1387	benzyl	"3,3-dimethallyl"
1388	1-pyrrolylmethyl	"3,3-dimethallyl"
1389	1-pyrazolylmethyl	"3,3-dimethallyl"
1390	1-imidazolylmethyl	"3,3-dimethallyl"
1391	1-indolylmethyl	"3,3-dimethallyl"
1392	1-triazolylmethyl	"3,3-dimethallyl"
1393	1-tetrazolylmethyl	"3,3-dimethallyl"
1394	2-pyridylmethyl	"3,3-dimethallyl"
1395	3-pyridylmethyl	"3,3-dimethallyl"
1396	4-pyridylmethyl	"3,3-dimethallyl"
1397	cyclohexylmethyl	"3,3-dimethallyl"
1398	2-naphthylmethyl	"3,3-dimethallyl"
1399	3-naphthylmethyl	"3,3-dimethallyl"
1400	2-thiophenylmethyl	"3,3-dimethallyl"
1401	4-(1-methyl)piperidinyl- methyl	"3,3-dimethallyl"
1402	"(3,4- methylenedioxyphenyl)methyl"	"3,3-dimethallyl"
1403	2-thienylmethyl	"3,3-dimethallyl"
1404	4-biphenylmethyl	"3,3-dimethallyl"
1405	pyrimidinylmethyl	"3,3-dimethallyl"
1406	2-benzothiazolylmethyl	"3,3-dimethallyl"

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1407	2-benzothiophenylmethyl	"3,3-dimethallyl"
1408	2-thiomethylethyl	"3,3-dimethallyl"
1409	2-thiomethylmethyl	"3,3-dimethallyl"
1410	2-methylpropyl	"3,3-dimethallyl"
1411	2-methylbutyl	"3,3-dimethallyl"
1412	3-methylbutyl	"3,3-dimethallyl"
1413	cyclopropylmethyl	"3,3-dimethallyl"
1414	cyclobutylmethyl	"3,3-dimethallyl"
1415	cyclopentylmethyl	"3,3-dimethallyl"
1416	p-hydroxyphenylmethyl	"3,3-dimethallyl"
1417	p-nitrophenylmethyl	"3,3-dimethallyl"
1418	p-aminophenylmethyl	"3,3-dimethallyl"
1419	"4-(N,N-dimethylamino)phenylmethyl"	"3,3-dimethallyl"
1420	benzyl	3-methallyl
1421	1-pyrolylmethyl	3-methallyl
1422	1-pyrazolylmethyl	3-methallyl
1423	1-imidazolylmethyl	3-methallyl
1424	1-indolylmethyl	3-methallyl
1425	1-triazolylmethyl	3-methallyl
1426	1-tetrazolylmethyl	3-methallyl
1427	2-pyridylmethyl	3-methallyl
1428	3-pyridylmethyl	3-methallyl
1429	4-pyridylmethyl	3-methallyl
1430	cyclohexylmethyl	3-methallyl
1431	2-naphthylmethyl	3-methallyl
1432	3-naphthylmethyl	3-methallyl
1433	2-thiophenylmethyl	3-methallyl
1434	4-(1-methyl)piperidinyl-methyl	3-methallyl
1435	"(3,4-methylenedioxyphenyl)methyl"	3-methallyl
1436	2-thienylmethyl	3-methallyl
1437	4-biphenylmethyl	3-methallyl
1438	pyrimidinylmethyl	3-methallyl
1439	2-benzothiazolylmethyl	3-methallyl
1440	2-benzothiophenylmethyl	3-methallyl
1441	2-thiomethylethyl	3-methallyl
1442	2-thiomethylmethyl	3-methallyl
1443	2-methylpropyl	3-methallyl
1444	2-methylbutyl	3-methallyl
1445	3-methylbutyl	3-methallyl
1446	cyclopropylmethyl	3-methallyl
1447	cyclobutylmethyl	3-methallyl
1448	cyclopentylmethyl	3-methallyl
1449	p-hydroxyphenylmethyl	3-methallyl
1450	p-nitrophenylmethyl	3-methallyl
1451	p-aminophenylmethyl	3-methallyl
1452	"4-(N,N-dimethylamino)phenylmethyl"	3-methallyl
1453	benzyl	2-methallyl
1454	1-pyrolylmethyl	2-methallyl
1455	1-pyrazolylmethyl	2-methallyl
1456	1-imidazolylmethyl	2-methallyl
1457	1-indolylmethyl	2-methallyl
1458	1-triazolylmethyl	2-methallyl
1459	1-tetrazolylmethyl	2-methallyl

Table 4

1460	2-pyridylmethyl	2-methallyl
1461	3-pyridylmethyl	2-methallyl
1462	4-pyridylmethyl	2-methallyl
1463	cyclohexylmethyl	2-methallyl
1464	2-naphthylmethyl	2-methallyl
1465	3-naphthylmethyl	2-methallyl
1466	2-thiophenylmethyl	2-methallyl
1467	4-(1-methyl)piperidinyl- methyl	2-methallyl
1468	"(3,4- methylenedioxyphenyl)methyl"	2-methallyl
1469	2-thienylmethyl	2-methallyl
1470	4-biphenylmethyl	2-methallyl
1471	pyrimidinylmethyl	2-methallyl
1472	2-benzothiazolylmethyl	2-methallyl
1473	2-benzothiophenylmethyl	2-methallyl
1474	2-thiomethylethyl	2-methallyl
1475	2-thiomethylmethyl	2-methallyl
1476	2-methylpropyl	2-methallyl
1477	2-methylbutyl	2-methallyl
1478	3-methylbutyl	2-methallyl
1479	cyclopropylmethyl	2-methallyl
1480	cyclobutylmethyl	2-methallyl
1481	cyclopentylmethyl	2-methallyl
1482	p-hydroxyphenylmethyl	2-methallyl
1483	p-nitrophenylmethyl	2-methallyl
1484	p-aminophenylmethyl	2-methallyl
1485	"4-(N,N- dimethylamino)phenylmethyl"	2-methallyl
1486	benzyl	2-propyl
1487	1-pyrollylmethyl	2-propyl
1488	1-pyrazolylmethyl	2-propyl
1489	1-imidazolylmethyl	2-propyl
1490	1-indolylmethyl	2-propyl
1491	1-triazolylmethyl	2-propyl
1492	1-tetrazolylmethyl	2-propyl
1493	2-pyridylmethyl	2-propyl
1494	3-pyridylmethyl	2-propyl
1495	4-pyridylmethyl	2-propyl
1496	cyclohexylmethyl	2-propyl
1497	2-naphthylmethyl	2-propyl
1498	3-naphthylmethyl	2-propyl
1499	2-thiophenylmethyl	2-propyl
1500	4-(1-methyl)piperidinyl- methyl	2-propyl
1501	"(3,4- methylenedioxyphenyl)methyl"	2-propyl
1502	2-thienylmethyl	2-propyl
1503	4-biphenylmethyl	2-propyl
1504	pyrimidinylmethyl	2-propyl
1505	2-benzothiazolylmethyl	2-propyl
1506	2-benzothiophenylmethyl	2-propyl
1507	2-thiomethylethyl	2-propyl
1508	2-thiomethylmethyl	2-propyl
1509	2-methylpropyl	2-propyl
1510	2-methylbutyl	2-propyl
1511	3-methylbutyl	2-propyl

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1512	cyclopropylmethyl	2-propyl
1513	cyclobutylmethyl	2-propyl
1514	cyclopentylmethyl	2-propyl
1515	p-hydroxyphenylmethyl	2-propyl
1516	p-nitrophenylmethyl	2-propyl
1517	p-aminophenylmethyl	2-propyl
1518	"4-(N,N-dimethylamino)phenylmethyl"	2-propyl
1519	benzyl	cyclopropyl
1520	1-pyrolylmethyl	cyclopropyl
1521	1-pyrazolylmethyl	cyclopropyl
1522	1-imidazolylmethyl	cyclopropyl
1523	1-indolylmethyl	cyclopropyl
1524	1-triazolylmethyl	cyclopropyl
1525	1-tetrazolylmethyl	cyclopropyl
1526	2-pyridylmethyl	cyclopropyl
1527	3-pyridylmethyl	cyclopropyl
1528	4-pyridylmethyl	cyclopropyl
1529	cyclohexylmethyl	cyclopropyl
1530	2-naphthylmethyl	cyclopropyl
1531	3-naphthylmethyl	cyclopropyl
1532	2-thiophenylmethyl	cyclopropyl
1533	4-(1-methyl)piperidinyl-methyl	cyclopropyl
1534	"(3,4-methylenedioxyphenyl)methyl"	cyclopropyl
1535	2-thienylmethyl	cyclopropyl
1536	4-biphenylmethyl	cyclopropyl
1537	pyrimidinylmethyl	cyclopropyl
1538	2-benzothiazolylmethyl	cyclopropyl
1539	2-benzothiophenylmethyl	cyclopropyl
1540	2-thiomethylethyl	cyclopropyl
1541	2-thiomethylmethyl	cyclopropyl
1542	2-methylpropyl	cyclopropyl
1543	2-methylbutyl	cyclopropyl
1544	3-methylbutyl	cyclopropyl
1545	cyclopropylmethyl	cyclopropyl
1546	cyclobutylmethyl	cyclopropyl
1547	cyclopentylmethyl	cyclopropyl
1548	p-hydroxyphenylmethyl	cyclopropyl
1549	p-nitrophenylmethyl	cyclopropyl
1550	p-aminophenylmethyl	cyclopropyl
1551	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropyl
1552	benzyl	cyclopropylmethyl
1553	1-pyrolylmethyl	cyclopropylmethyl
1554	1-pyrazolylmethyl	cyclopropylmethyl
1555	1-imidazolylmethyl	cyclopropylmethyl
1556	1-indolylmethyl	cyclopropylmethyl
1557	1-triazolylmethyl	cyclopropylmethyl
1558	1-tetrazolylmethyl	cyclopropylmethyl
1559	2-pyridylmethyl	cyclopropylmethyl
1560	3-pyridylmethyl	cyclopropylmethyl
1561	4-pyridylmethyl	cyclopropylmethyl
1562	cyclohexylmethyl	cyclopropylmethyl
1563	2-naphthylmethyl	cyclopropylmethyl
1564	3-naphthylmethyl	cyclopropylmethyl

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1565	2-thiophenylmethyl	cyclopropylmethyl
1566	4-(1-methyl)piperidinyl-methyl	cyclopropylmethyl
1567	"(3,4-methylenedioxyphenyl)methyl"	cyclopropylmethyl
1568	2-thienylmethyl	cyclopropylmethyl
1569	4-biphenylmethyl	cyclopropylmethyl
1570	pyrimidinylmethyl	cyclopropylmethyl
1571	2-benzothiazolylmethyl	cyclopropylmethyl
1572	2-benzothiophenylmethyl	cyclopropylmethyl
1573	2-thiomethylethyl	cyclopropylmethyl
1574	2-thiomethylmethyl	cyclopropylmethyl
1575	2-methylpropyl	cyclopropylmethyl
1576	2-methylbutyl	cyclopropylmethyl
1577	3-methylbutyl	cyclopropylmethyl
1578	cyclopropylmethyl	cyclopropylmethyl
1579	cyclobutylmethyl	cyclopropylmethyl
1580	cyclopentylmethyl	cyclopropylmethyl
1581	p-hydroxyphenylmethyl	cyclopropylmethyl
1582	p-nitrophenylmethyl	cyclopropylmethyl
1583	p-aminophenylmethyl	cyclopropylmethyl
1584	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropylmethyl
1585	benzyl	n-pentyl
1586	1-pyrollylmethyl	n-pentyl
1587	1-pyrazolylmethyl	n-pentyl
1588	1-imidazolylmethyl	n-pentyl
1589	1-indolylmethyl	n-pentyl
1590	1-triazolylmethyl	n-pentyl
1591	1-tetrazolylmethyl	n-pentyl
1592	2-pyridylmethyl	n-pentyl
1593	3-pyridylmethyl	n-pentyl
1594	4-pyridylmethyl	n-pentyl
1595	cyclohexylmethyl	n-pentyl
1596	2-naphthylmethyl	n-pentyl
1597	3-naphthylmethyl	n-pentyl
1598	2-thiophenylmethyl	n-pentyl
1599	4-(1-methyl)piperidinyl-methyl	n-pentyl
1600	"(3,4-methylenedioxyphenyl)methyl"	n-pentyl
1601	2-thienylmethyl	n-pentyl
1602	4-biphenylmethyl	n-pentyl
1603	pyrimidinylmethyl	n-pentyl
1604	2-benzothiazolylmethyl	n-pentyl
1605	2-benzothiophenylmethyl	n-pentyl
1606	2-thiomethylethyl	n-pentyl
1607	2-thiomethylmethyl	n-pentyl
1608	2-methylpropyl	n-pentyl
1609	2-methylbutyl	n-pentyl
1610	3-methylbutyl	n-pentyl
1611	cyclopropylmethyl	n-pentyl
1612	cyclobutylmethyl	n-pentyl
1613	cyclopentylmethyl	n-pentyl
1614	p-hydroxyphenylmethyl	n-pentyl
1615	p-nitrophenylmethyl	n-pentyl
1616	p-aminophenylmethyl	n-pentyl

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1617	"4-(N,N-dimethylamino)phenylmethyl"	n-pentyl
1618	benzyl	2-pentyl
1619	1-pyrrolylmethyl	2-pentyl
1620	1-pyrazolylmethyl	2-pentyl
1621	1-imidazolylmethyl	2-pentyl
1622	1-indolylmethyl	2-pentyl
1623	1-triazolylmethyl	2-pentyl
1624	1-tetrazolylmethyl	2-pentyl
1625	2-pyridylmethyl	2-pentyl
1626	3-pyridylmethyl	2-pentyl
1627	4-pyridylmethyl	2-pentyl
1628	cyclohexylmethyl	2-pentyl
1629	2-naphthylmethyl	2-pentyl
1630	3-naphthylmethyl	2-pentyl
1631	2-thiophenylmethyl	2-pentyl
1632	4-(1-methyl)piperidinyl-methyl	2-pentyl
1633	"(3,4-methylenedioxyphenyl)methyl"	2-pentyl
1634	2-thienylmethyl	2-pentyl
1635	4-biphenylmethyl	2-pentyl
1636	pyrimidinylmethyl	2-pentyl
1637	2-benzothiazolylmethyl	2-pentyl
1638	2-benzothiophenylmethyl	2-pentyl
1639	2-thiomethylethyl	2-pentyl
1640	2-thiomethylmethyl	2-pentyl
1641	2-methylpropyl	2-pentyl
1642	2-methylbutyl	2-pentyl
1643	3-methylbutyl	2-pentyl
1644	cyclopropylmethyl	2-pentyl
1645	cyclobutylmethyl	2-pentyl
1646	cyclopentylmethyl	2-pentyl
1647	p-hydroxyphenylmethyl	2-pentyl
1648	p-nitrophenylmethyl	2-pentyl
1649	p-aminophenylmethyl	2-pentyl
1650	"4-(N,N-dimethylamino)phenylmethyl"	2-pentyl
1651	benzyl	3-pentyl
1652	1-pyrrolylmethyl	3-pentyl
1653	1-pyrazolylmethyl	3-pentyl
1654	1-imidazolylmethyl	3-pentyl
1655	1-indolylmethyl	3-pentyl
1656	1-triazolylmethyl	3-pentyl
1657	1-tetrazolylmethyl	3-pentyl
1658	2-pyridylmethyl	3-pentyl
1659	3-pyridylmethyl	3-pentyl
1660	4-pyridylmethyl	3-pentyl
1661	cyclohexylmethyl	3-pentyl
1662	2-naphthylmethyl	3-pentyl
1663	3-naphthylmethyl	3-pentyl
1664	2-thiophenylmethyl	3-pentyl
1665	4-(1-methyl)piperidinyl-methyl	3-pentyl
1666	"(3,4-methylenedioxyphenyl)methyl"	3-pentyl
1667	2-thienylmethyl	3-pentyl

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1668	4-biphenylmethyl	3-pentyl
1669	pyrimidinylmethyl	3-pentyl
1670	2-benzothiazolylmethyl	3-pentyl
1671	2-benzothiophenylmethyl	3-pentyl
1672	2-thiomethylethyl	3-pentyl
1673	2-thiomethylmethyl	3-pentyl
1674	2-methylpropyl	3-pentyl
1675	2-methylbutyl	3-pentyl
1676	3-methylbutyl	3-pentyl
1677	cyclopropylmethyl	3-pentyl
1678	cyclobutylmethyl	3-pentyl
1679	cyclopentylmethyl	3-pentyl
1680	p-hydroxyphenylmethyl	3-pentyl
1681	p-nitrophenylmethyl	3-pentyl
1682	p-aminophenylmethyl	3-pentyl
1683	"4-(N,N-dimethylamino)phenylmethyl"	3-pentyl
1684	benzyl	3-methylbutyl
1685	1-pyrollylmethyl	3-methylbutyl
1686	1-pyrazolylmethyl	3-methylbutyl
1687	1-imidazolylmethyl	3-methylbutyl
1688	1-indolylmethyl	3-methylbutyl
1689	1-triazolylmethyl	3-methylbutyl
1690	1-tetrazolylmethyl	3-methylbutyl
1691	2-pyridylmethyl	3-methylbutyl
1692	3-pyridylmethyl	3-methylbutyl
1693	4-pyridylmethyl	3-methylbutyl
1694	cyclohexylmethyl	3-methylbutyl
1695	2-naphthylmethyl	3-methylbutyl
1696	3-naphthylmethyl	3-methylbutyl
1697	2-thiophenylmethyl	3-methylbutyl
1698	4-(1-methyl)piperidinyl-methyl	3-methylbutyl
1699	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl
1700	2-thienylmethyl	3-methylbutyl
1701	4-biphenylmethyl	3-methylbutyl
1702	pyrimidinylmethyl	3-methylbutyl
1703	2-benzothiazolylmethyl	3-methylbutyl
1704	2-benzothiophenylmethyl	3-methylbutyl
1705	2-thiomethylethyl	3-methylbutyl
1706	2-thiomethylmethyl	3-methylbutyl
1707	2-methylpropyl	3-methylbutyl
1708	2-methylbutyl	3-methylbutyl
1709	3-methylbutyl	3-methylbutyl
1710	cyclopropylmethyl	3-methylbutyl
1711	cyclobutylmethyl	3-methylbutyl
1712	cyclopentylmethyl	3-methylbutyl
1713	p-hydroxyphenylmethyl	3-methylbutyl
1714	p-nitrophenylmethyl	3-methylbutyl
1715	p-aminophenylmethyl	3-methylbutyl
1716	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl
1717	benzyl	2-methylbutyl
1718	1-pyrollylmethyl	2-methylbutyl
1719	1-pyrazolylmethyl	2-methylbutyl
1720	1-imidazolylmethyl	2-methylbutyl

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1721	1-indolylmethyl	2-methylbutyl
1722	1-triazolylmethyl	2-methylbutyl
1723	1-tetrazolylmethyl	2-methylbutyl
1724	2-pyridylmethyl	2-methylbutyl
1725	3-pyridylmethyl	2-methylbutyl
1726	4-pyridylmethyl	2-methylbutyl
1727	cyclohexylmethyl	2-methylbutyl
1728	2-naphthylmethyl	2-methylbutyl
1729	3-naphthylmethyl	2-methylbutyl
1730	2-thiophenylmethyl	2-methylbutyl
1731	4-(1-methyl)piperidinyl-methyl	2-methylbutyl
1732	"(3,4-methylenedioxyphenyl)methyl"	2-methylbutyl
1733	2-thienylmethyl	2-methylbutyl
1734	4-biphenylmethyl	2-methylbutyl
1735	pyrimidinylmethyl	2-methylbutyl
1736	2-benzothiazolylmethyl	2-methylbutyl
1737	2-benzothiophenylmethyl	2-methylbutyl
1738	2-thiomethylethyl	2-methylbutyl
1739	2-thiomethylmethyl	2-methylbutyl
1740	2-methylpropyl	2-methylbutyl
1741	2-methylbutyl	2-methylbutyl
1742	3-methylbutyl	2-methylbutyl
1743	cyclopropylmethyl	2-methylbutyl
1744	cyclobutylmethyl	2-methylbutyl
1745	cyclopentylmethyl	2-methylbutyl
1746	p-hydroxyphenylmethyl	2-methylbutyl
1747	p-nitrophenylmethyl	2-methylbutyl
1748	p-aminophenylmethyl	2-methylbutyl
1749	"4-(N,N-dimethylamino)phenylmethyl"	2-methylbutyl
1750	benzyl	propargyl
1751	1-pyrollylmethyl	propargyl
1752	1-pyrazolylmethyl	propargyl
1753	1-imidazolylmethyl	propargyl
1754	1-indolylmethyl	propargyl
1755	1-triazolylmethyl	propargyl
1756	1-tetrazolylmethyl	propargyl
1757	2-pyridylmethyl	propargyl
1758	3-pyridylmethyl	propargyl
1759	4-pyridylmethyl	propargyl
1760	cyclohexylmethyl	propargyl
1761	2-naphthylmethyl	propargyl
1762	3-naphthylmethyl	propargyl
1763	2-thiophenylmethyl	propargyl
1764	4-(1-methyl)piperidinyl-methyl	propargyl
1765	"(3,4-methylenedioxyphenyl)methyl"	propargyl
1766	2-thienylmethyl	propargyl
1767	4-biphenylmethyl	propargyl
1768	pyrimidinylmethyl	propargyl
1769	2-benzothiazolylmethyl	propargyl
1770	2-benzothiophenylmethyl	propargyl
1771	2-thiomethylethyl	propargyl
1772	2-thiomethylmethyl	propargyl

Table 4

1773	2-methylpropyl	propargyl
1774	2-methylbutyl	propargyl
1775	3-methylbutyl	propargyl
1776	cyclopropylmethyl	propargyl
1777	cyclobutylmethyl	propargyl
1778	cyclopentylmethyl	propargyl
1779	p-hydroxyphenylmethyl	propargyl
1780	p-nitrophenylmethyl	propargyl
1781	p-aminophenylmethyl	propargyl
1782	"4-(N,N-dimethylamino)phenylmethyl"	propargyl
1783	benzyl	cyclobutyl
1784	1-pyrolylmethyl	cyclobutyl
1785	1-pyrazolylmethyl	cyclobutyl
1786	1-imidazolylmethyl	cyclobutyl
1787	1-indolylmethyl	cyclobutyl
1788	1-triazolylmethyl	cyclobutyl
1789	1-tetrazolylmethyl	cyclobutyl
1790	2-pyridylmethyl	cyclobutyl
1791	3-pyridylmethyl	cyclobutyl
1792	4-pyridylmethyl	cyclobutyl
1793	cyclohexylmethyl	cyclobutyl
1794	2-naphthylmethyl	cyclobutyl
1795	3-naphthylmethyl	cyclobutyl
1796	2-thiophenylmethyl	cyclobutyl
1797	4-(1-methyl)piperidinyl-methyl	cyclobutyl
1798	"(3,4-methylenedioxyphenyl)methyl"	cyclobutyl
1799	2-thienylmethyl	cyclobutyl
1800	4-biphenylmethyl	cyclobutyl
1801	pyrimidinylmethyl	cyclobutyl
1802	2-benzothiazolylmethyl	cyclobutyl
1803	2-benzothiophenylmethyl	cyclobutyl
1804	2-thiomethylethyl	cyclobutyl
1805	2-thiomethylmethyl	cyclobutyl
1806	2-methylpropyl	cyclobutyl
1807	2-methylbutyl	cyclobutyl
1808	3-methylbutyl	cyclobutyl
1809	cyclopropylmethyl	cyclobutyl
1810	cyclobutylmethyl	cyclobutyl
1811	cyclopentylmethyl	cyclobutyl
1812	p-hydroxyphenylmethyl	cyclobutyl
1813	p-nitrophenylmethyl	cyclobutyl
1814	p-aminophenylmethyl	cyclobutyl
1815	"4-(N,N-dimethylamino)phenylmethyl"	cyclobutyl
1816	benzyl	cyclobutylmethyl
1817	1-pyrolylmethyl	cyclobutylmethyl
1818	1-pyrazolylmethyl	cyclobutylmethyl
1819	1-imidazolylmethyl	cyclobutylmethyl
1820	1-indolylmethyl	cyclobutylmethyl
1821	1-triazolylmethyl	cyclobutylmethyl
1822	1-tetrazolylmethyl	cyclobutylmethyl
1823	2-pyridylmethyl	cyclobutylmethyl
1824	3-pyridylmethyl	cyclobutylmethyl
1825	4-pyridylmethyl	cyclobutylmethyl

Table 4

1826	cyclohexylmethyl	cyclobutylmethyl
1827	2-naphthylmethyl	cyclobutylmethyl
1828	3-naphthylmethyl	cyclobutylmethyl
1829	2-thiophenylmethyl	cyclobutylmethyl
1830	4-(1-methyl)piperidinyl-methyl	cyclobutylmethyl
1831	"(3,4-methylenedioxyphenyl)methyl"	cyclobutylmethyl
1832	2-thienylmethyl	cyclobutylmethyl
1833	4-biphenylmethyl	cyclobutylmethyl
1834	pyrimidinylmethyl	cyclobutylmethyl
1835	2-benzothiazolylmethyl	cyclobutylmethyl
1836	2-benzothiophenylmethyl	cyclobutylmethyl
1837	2-thiomethylethyl	cyclobutylmethyl
1838	2-thiomethylmethyl	cyclobutylmethyl
1839	2-methylpropyl	cyclobutylmethyl
1840	2-methylbutyl	cyclobutylmethyl
1841	3-methylbutyl	cyclobutylmethyl
1842	cyclopropylmethyl	cyclobutylmethyl
1843	cyclobutylmethyl	cyclobutylmethyl
1844	cyclopentylmethyl	cyclobutylmethyl
1845	p-hydroxyphenylmethyl	cyclobutylmethyl
1846	p-nitrophenylmethyl	cyclobutylmethyl
1847	p-aminophenylmethyl	cyclobutylmethyl
1848	"4-(N,N-dimethylamino)phenylmethyl"	cyclobutylmethyl
1849	benzyl	cyclopentyl
1850	1-pyrollylmethyl	cyclopentyl
1851	1-pyrazolylmethyl	cyclopentyl
1852	1-imidazolylmethyl	cyclopentyl
1853	1-indolylmethyl	cyclopentyl
1854	1-triazolylmethyl	cyclopentyl
1855	1-tetrazolylmethyl	cyclopentyl
1856	2-pyridylmethyl	cyclopentyl
1857	3-pyridylmethyl	cyclopentyl
1858	4-pyridylmethyl	cyclopentyl
1859	cyclohexylmethyl	cyclopentyl
1860	2-naphthylmethyl	cyclopentyl
1861	3-naphthylmethyl	cyclopentyl
1862	2-thiophenylmethyl	cyclopentyl
1863	4-(1-methyl)piperidinyl-methyl	cyclopentyl
1864	"(3,4-methylenedioxyphenyl)methyl"	cyclopentyl
1865	2-thienylmethyl	cyclopentyl
1866	4-biphenylmethyl	cyclopentyl
1867	pyrimidinylmethyl	cyclopentyl
1868	2-benzothiazolylmethyl	cyclopentyl
1869	2-benzothiophenylmethyl	cyclopentyl
1870	2-thiomethylethyl	cyclopentyl
1871	2-thiomethylmethyl	cyclopentyl
1872	2-methylpropyl	cyclopentyl
1873	2-methylbutyl	cyclopentyl
1874	3-methylbutyl	cyclopentyl
1875	cyclopropylmethyl	cyclopentyl
1876	cyclobutylmethyl	cyclopentyl
1877	cyclopentylmethyl	cyclopentyl

Table 4

1878	p-hydroxyphenylmethyl	cyclopentyl
1879	p-nitrophenylmethyl	cyclopentyl
1880	p-aminophenylmethyl	cyclopentyl
1881	"4-(N,N-dimethylamino)phenylmethyl"	cyclopentyl
1882	benzyl	cyclopentylmethyl
1883	1-pyrolylmethyl	cyclopentylmethyl
1884	1-pyrazolylmethyl	cyclopentylmethyl
1885	1-imidazolylmethyl	cyclopentylmethyl
1886	1-indolylmethyl	cyclopentylmethyl
1887	1-triazolylmethyl	cyclopentylmethyl
1888	1-tetrazolylmethyl	cyclopentylmethyl
1889	2-pyridylmethyl	cyclopentylmethyl
1890	3-pyridylmethyl	cyclopentylmethyl
1891	4-pyridylmethyl	cyclopentylmethyl
1892	cyclohexylmethyl	cyclopentylmethyl
1893	2-naphthylmethyl	cyclopentylmethyl
1894	3-naphthylmethyl	cyclopentylmethyl
1895	2-thiophenylmethyl	cyclopentylmethyl
1896	4-(1-methyl)piperidinyl-methyl	cyclopentylmethyl
1897	"(3,4-methylenedioxyphenyl)methyl"	cyclopentylmethyl
1898	2-thienylmethyl	cyclopentylmethyl
1899	4-biphenylmethyl	cyclopentylmethyl
1900	pyrimidinylmethyl	cyclopentylmethyl
1901	2-benzothiazolylmethyl	cyclopentylmethyl
1902	2-benzothiophenylmethyl	cyclopentylmethyl
1903	2-thiomethylethyl	cyclopentylmethyl
1904	2-thiomethylmethyl	cyclopentylmethyl
1905	2-methylpropyl	cyclopentylmethyl
1906	2-methylbutyl	cyclopentylmethyl
1907	3-methylbutyl	cyclopentylmethyl
1908	cyclopropylmethyl	cyclopentylmethyl
1909	cyclobutylmethyl	cyclopentylmethyl
1910	cyclopentylmethyl	cyclopentylmethyl
1911	p-hydroxyphenylmethyl	cyclopentylmethyl
1912	p-nitrophenylmethyl	cyclopentylmethyl
1913	p-aminophenylmethyl	cyclopentylmethyl
1914	"4-(N,N-dimethylamino)phenylmethyl"	cyclopentylmethyl
1915	benzyl	1-hexyl
1916	1-pyrolylmethyl	1-hexyl
1917	1-pyrazolylmethyl	1-hexyl
1918	1-imidazolylmethyl	1-hexyl
1919	1-indolylmethyl	1-hexyl
1920	1-triazolylmethyl	1-hexyl
1921	1-tetrazolylmethyl	1-hexyl
1922	2-pyridylmethyl	1-hexyl
1923	3-pyridylmethyl	1-hexyl
1924	4-pyridylmethyl	1-hexyl
1925	cyclohexylmethyl	1-hexyl
1926	2-naphthylmethyl	1-hexyl
1927	3-naphthylmethyl	1-hexyl
1928	2-thiophenylmethyl	1-hexyl
1929	4-(1-methyl)piperidinyl-methyl	1-hexyl

Table 4

1930	"(3,4-methylenedioxyphenyl)methyl"	1-hexyl
1931	2-thienylmethyl	1-hexyl
1932	4-biphenylmethyl	1-hexyl
1933	pyrimidinylmethyl	1-hexyl
1934	2-benzothiazolylmethyl	1-hexyl
1935	2-benzothiophenylmethyl	1-hexyl
1936	2-thiomethylethyl	1-hexyl
1937	2-thiomethylmethyl	1-hexyl
1938	2-methylpropyl	1-hexyl
1939	2-methylbutyl	1-hexyl
1940	3-methylbutyl	1-hexyl
1941	cyclopropylmethyl	1-hexyl
1942	cyclobutylmethyl	1-hexyl
1943	cyclopentylmethyl	1-hexyl
1944	p-hydroxyphenylmethyl	1-hexyl
1945	p-nitrophenylmethyl	1-hexyl
1946	p-aminophenylmethyl	1-hexyl
1947	"4-(N,N-dimethylamino)phenylmethyl"	1-hexyl
1948	benzyl	4-methylpentyl
1949	1-pyrollylmethyl	4-methylpentyl
1950	1-pyrazolylmethyl	4-methylpentyl
1951	1-imidazolylmethyl	4-methylpentyl
1952	1-indolylmethyl	4-methylpentyl
1953	1-triazolylmethyl	4-methylpentyl
1954	1-tetrazolylmethyl	4-methylpentyl
1955	2-pyridylmethyl	4-methylpentyl
1956	3-pyridylmethyl	4-methylpentyl
1957	4-pyridylmethyl	4-methylpentyl
1958	cyclohexylmethyl	4-methylpentyl
1959	2-naphthylmethyl	4-methylpentyl
1960	3-naphthylmethyl	4-methylpentyl
1961	2-thiophenylmethyl	4-methylpentyl
1962	4-(1-methyl)piperidinylmethyl	4-methylpentyl
1963	"(3,4-methylenedioxyphenyl)methyl"	4-methylpentyl
1964	2-thienylmethyl	4-methylpentyl
1965	4-biphenylmethyl	4-methylpentyl
1966	pyrimidinylmethyl	4-methylpentyl
1967	2-benzothiazolylmethyl	4-methylpentyl
1968	2-benzothiophenylmethyl	4-methylpentyl
1969	2-thiomethylethyl	4-methylpentyl
1970	2-thiomethylmethyl	4-methylpentyl
1971	2-methylpropyl	4-methylpentyl
1972	2-methylbutyl	4-methylpentyl
1973	3-methylbutyl	4-methylpentyl
1974	cyclopropylmethyl	4-methylpentyl
1975	cyclobutylmethyl	4-methylpentyl
1976	cyclopentylmethyl	4-methylpentyl
1977	p-hydroxyphenylmethyl	4-methylpentyl
1978	p-nitrophenylmethyl	4-methylpentyl
1979	p-aminophenylmethyl	4-methylpentyl
1980	"4-(N,N-dimethylamino)phenylmethyl"	4-methylpentyl
1981	benzyl	3-methylpentyl

Table 4

1982	1-pyrolylmethyl	3-methylpentyl
1983	1-pyrazolylmethyl	3-methylpentyl
1984	1-imidazolylmethyl	3-methylpentyl
1985	1-indolylmethyl	3-methylpentyl
1986	1-triazolylmethyl	3-methylpentyl
1987	1-tetrazolylmethyl	3-methylpentyl
1988	2-pyridylmethyl	3-methylpentyl
1989	3-pyridylmethyl	3-methylpentyl
1990	4-pyridylmethyl	3-methylpentyl
1991	cyclohexylmethyl	3-methylpentyl
1992	2-naphthylmethyl	3-methylpentyl
1993	3-naphthylmethyl	3-methylpentyl
1994	2-thiophenylmethyl	3-methylpentyl
1995	4-(1-methyl)piperidinyl-methyl	3-methylpentyl
1996	"(3,4-methylenedioxyphenyl)methyl"	3-methylpentyl
1997	2-thienylmethyl	3-methylpentyl
1998	4-biphenylmethyl	3-methylpentyl
1999	pyrimidinylmethyl	3-methylpentyl
2000	2-benzothiazolylmethyl	3-methylpentyl
2001	2-benzothiophenylmethyl	3-methylpentyl
2002	2-thiomethylethyl	3-methylpentyl
2003	2-thiomethylmethyl	3-methylpentyl
2004	2-methylpropyl	3-methylpentyl
2005	2-methylbutyl	3-methylpentyl
2006	3-methylbutyl	3-methylpentyl
2007	cyclopropylmethyl	3-methylpentyl
2008	cyclobutylmethyl	3-methylpentyl
2009	cyclopentylmethyl	3-methylpentyl
2010	p-hydroxyphenylmethyl	3-methylpentyl
2011	p-nitrophenylmethyl	3-methylpentyl
2012	p-aminophenylmethyl	3-methylpentyl
2013	"4-(N,N-dimethylamino)phenylmethyl"	3-methylpentyl
2014	benzyl	isopropyl
2015	1-pyrolylmethyl	isopropyl
2016	1-pyrazolylmethyl	isopropyl
2017	1-imidazolylmethyl	isopropyl
2018	1-indolylmethyl	isopropyl
2019	1-triazolylmethyl	isopropyl
2020	1-tetrazolylmethyl	isopropyl
2021	2-pyridylmethyl	isopropyl
2022	3-pyridylmethyl	isopropyl
2023	4-pyridylmethyl	isopropyl
2024	cyclohexylmethyl	isopropyl
2025	2-naphthylmethyl	isopropyl
2026	3-naphthylmethyl	isopropyl
2027	2-thiophenylmethyl	isopropyl
2028	4-(1-methyl)piperidinyl-methyl	isopropyl
2029	"(3,4-methylenedioxyphenyl)methyl"	isopropyl
2030	2-thienylmethyl	isopropyl
2031	4-biphenylmethyl	isopropyl
2032	pyrimidinylmethyl	isopropyl
2033	2-benzothiazolylmethyl	isopropyl

Table 4

2034	2-benzothiophenylmethyl	isopropyl
2035	2-thiomethylethyl	isopropyl
2036	2-thiomethylmethyl	isopropyl
2037	2-methylpropyl	isopropyl
2038	2-methylbutyl	isopropyl
2039	3-methylbutyl	isopropyl
2040	cyclopropylmethyl	isopropyl
2041	cyclobutylmethyl	isopropyl
2042	cyclopentylmethyl	isopropyl
2043	p-hydroxyphenylmethyl	isopropyl
2044	p-nitrophenylmethyl	isopropyl
2045	p-aminophenylmethyl	isopropyl
2046	"4-(N,N-dimethylamino)phenylmethyl"	isopropyl
2047	benzyl	3-methylbutyl
2048	1-pyrolylmethyl	3-methylbutyl
2049	1-pyrazolylmethyl	3-methylbutyl
2050	1-imidazolylmethyl	3-methylbutyl
2051	1-indolylmethyl	3-methylbutyl
2052	1-triazolylmethyl	3-methylbutyl
2053	1-tetrazolylmethyl	3-methylbutyl
2054	2-pyridylmethyl	3-methylbutyl
2055	3-pyridylmethyl	3-methylbutyl
2056	4-pyridylmethyl	3-methylbutyl
2057	cyclohexylmethyl	3-methylbutyl
2058	2-naphthylmethyl	3-methylbutyl
2059	3-naphthylmethyl	3-methylbutyl
2060	2-thiophenylmethyl	3-methylbutyl
2061	4-(1-methyl)piperidinyl-methyl	3-methylbutyl
2062	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl
2063	2-thienylmethyl	3-methylbutyl
2064	4-biphenylmethyl	3-methylbutyl
2065	pyrimidinylmethyl	3-methylbutyl
2066	2-benzothiazolylmethyl	3-methylbutyl
2067	2-benzothiophenylmethyl	3-methylbutyl
2068	2-thiomethylethyl	3-methylbutyl
2069	2-thiomethylmethyl	3-methylbutyl
2070	2-methylpropyl	3-methylbutyl
2071	2-methylbutyl	3-methylbutyl
2072	3-methylbutyl	3-methylbutyl
2073	cyclopropylmethyl	3-methylbutyl
2074	cyclobutylmethyl	3-methylbutyl
2075	cyclopentylmethyl	3-methylbutyl
2076	p-hydroxyphenylmethyl	3-methylbutyl
2077	p-nitrophenylmethyl	3-methylbutyl
2078	p-aminophenylmethyl	3-methylbutyl
2079	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl
2080	benzyl	2-phenylethyl
2081	1-pyrolylmethyl	2-phenylethyl
2082	1-pyrazolylmethyl	2-phenylethyl
2083	1-imidazolylmethyl	2-phenylethyl
2084	1-indolylmethyl	2-phenylethyl
2085	1-triazolylmethyl	2-phenylethyl
2086	1-tetrazolylmethyl	2-phenylethyl

Table 4

2087	2-pyridylmethyl	2-phenylethyl
2088	3-pyridylmethyl	2-phenylethyl
2089	4-pyridylmethyl	2-phenylethyl
2090	cyclohexylmethyl	2-phenylethyl
2091	2-naphthylmethyl	2-phenylethyl
2092	3-naphthylmethyl	2-phenylethyl
2093	2-thiophenylmethyl	2-phenylethyl
2094	4-(1-methyl)piperidinyl-	2-phenylethyl
	methyl	
2095	"(3,4-	2-phenylethyl
	methylenedioxyphenyl)methyl"	
2096	2-thienylmethyl	2-phenylethyl
2097	4-biphenylmethyl	2-phenylethyl
2098	pyrimidinylmethyl	2-phenylethyl
2099	2-benzothiazolylmethyl	2-phenylethyl
2100	2-benzothiophenylmethyl	2-phenylethyl
2101	2-thiomethylethyl	2-phenylethyl
2102	2-thiomethylmethyl	2-phenylethyl
2103	2-methylpropyl	2-phenylethyl
2104	2-methylbutyl	2-phenylethyl
2105	3-methylbutyl	2-phenylethyl
2106	cyclopropylmethyl	2-phenylethyl
2107	cyclobutylmethyl	2-phenylethyl
2108	cyclopentylmethyl	2-phenylethyl
2109	p-hydroxyphenylmethyl	2-phenylethyl
2110	p-nitrophenylmethyl	2-phenylethyl
2111	p-aminophenylmethyl	2-phenylethyl
2112	"4-(N,N-	2-phenylethyl
	dimethylamino)phenylmethyl"	
2113	benzyl	3-phenylpropyl
2114	1-pyrollylmethyl	3-phenylpropyl
2115	1-pyrazolylmethyl	3-phenylpropyl
2116	1-imidazolylmethyl	3-phenylpropyl
2117	1-indolylmethyl	3-phenylpropyl
2118	1-triazolylmethyl	3-phenylpropyl
2119	1-tetrazolylmethyl	3-phenylpropyl
2120	2-pyridylmethyl	3-phenylpropyl
2121	3-pyridylmethyl	3-phenylpropyl
2122	4-pyridylmethyl	3-phenylpropyl
2123	cyclohexylmethyl	3-phenylpropyl
2124	2-naphthylmethyl	3-phenylpropyl
2125	3-naphthylmethyl	3-phenylpropyl
2126	2-thiophenylmethyl	3-phenylpropyl
2127	4-(1-methyl)piperidinyl-	3-phenylpropyl
	methyl	
2128	"(3,4-	3-phenylpropyl
	methylenedioxyphenyl)methyl"	
2129	2-thienylmethyl	3-phenylpropyl
2130	4-biphenylmethyl	3-phenylpropyl
2131	pyrimidinylmethyl	3-phenylpropyl
2132	2-benzothiazolylmethyl	3-phenylpropyl
2133	2-benzothiophenylmethyl	3-phenylpropyl
2134	2-thiomethylethyl	3-phenylpropyl
2135	2-thiomethylmethyl	3-phenylpropyl
2136	2-methylpropyl	3-phenylpropyl
2137	2-methylbutyl	3-phenylpropyl
2138	3-methylbutyl	3-phenylpropyl

Table 4

2139	cyclopropylmethyl	3-phenylpropyl
2140	cyclobutylmethyl	3-phenylpropyl
2141	cyclopentylmethyl	3-phenylpropyl
2142	p-hydroxyphenylmethyl	3-phenylpropyl
2143	p-nitrophenylmethyl	3-phenylpropyl
2144	p-aminophenylmethyl	3-phenylpropyl
2145	"4-(N,N-dimethylamino)phenylmethyl"	3-phenylpropyl
2146	benzyl	"2-(N,N-dimethylamino)ethyl"
2147	1-pyrolylmethyl	"2-(N,N-dimethylamino)ethyl"
2148	1-pyrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
2149	1-imidazolylmethyl	"2-(N,N-dimethylamino)ethyl"
2150	1-indolylmethyl	"2-(N,N-dimethylamino)ethyl"
2151	1-triazolylmethyl	"2-(N,N-dimethylamino)ethyl"
2152	1-tetrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
2153	2-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
2154	3-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
2155	4-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
2156	cyclohexylmethyl	"2-(N,N-dimethylamino)ethyl"
2157	2-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
2158	3-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
2159	2-thiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
2160	4-(1-methyl)piperidinylmethyl	"2-(N,N-dimethylamino)ethyl"
2161	"(3,4-methylenedioxyphenyl)methyl"	"2-(N,N-dimethylamino)ethyl"
2162	2-thienylmethyl	"2-(N,N-dimethylamino)ethyl"
2163	4-biphenylmethyl	"2-(N,N-dimethylamino)ethyl"
2164	pyrimidinylmethyl	"2-(N,N-dimethylamino)ethyl"
2165	2-benzothiazolylmethyl	"2-(N,N-dimethylamino)ethyl"
2166	2-benzothiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
2167	2-thiomethylethyl	"2-(N,N-dimethylamino)ethyl"
2168	2-thiomethylmethyl	"2-(N,N-dimethylamino)ethyl"
2169	2-methylpropyl	"2-(N,N-dimethylamino)ethyl"
2170	2-methylbutyl	"2-(N,N-dimethylamino)ethyl"
2171	3-methylbutyl	"2-(N,N-dimethylamino)ethyl"
2172	cyclopropylmethyl	"2-(N,N-dimethylamino)ethyl"
2173	cyclobutylmethyl	"2-(N,N-dimethylamino)ethyl"
2174	cyclopentylmethyl	"2-(N,N-dimethylamino)ethyl"
2175	p-hydroxyphenylmethyl	"2-(N,N-dimethylamino)ethyl"
2176	p-nitrophenylmethyl	"2-(N,N-dimethylamino)ethyl"
2177	p-aminophenylmethyl	"2-(N,N-dimethylamino)ethyl"
2178	"4-(N,N-dimethylamino)phenylmethyl"	"2-(N,N-dimethylamino)ethyl"
2179	benzyl	3-oxetanylmethyl
2180	1-pyrolylmethyl	3-oxetanylmethyl
2181	1-pyrazolylmethyl	3-oxetanylmethyl
2182	1-imidazolylmethyl	3-oxetanylmethyl
2183	1-indolylmethyl	3-oxetanylmethyl
2184	1-triazolylmethyl	3-oxetanylmethyl
2185	1-tetrazolylmethyl	3-oxetanylmethyl
2186	2-pyridylmethyl	3-oxetanylmethyl
2187	3-pyridylmethyl	3-oxetanylmethyl
2188	4-pyridylmethyl	3-oxetanylmethyl
2189	cyclohexylmethyl	3-oxetanylmethyl
2190	2-naphthylmethyl	3-oxetanylmethyl
2191	3-naphthylmethyl	3-oxetanylmethyl

Table 4

2192	2-thiophenylmethyl	3-oxetanylmethyl
2193	4-(1-methyl)piperidinyl-methyl	3-oxetanylmethyl
2194	"(3,4-methylenedioxyphenyl)methyl"	3-oxetanylmethyl
2195	2-thienylmethyl	3-oxetanylmethyl
2196	4-biphenylmethyl	3-oxetanylmethyl
2197	pyrimidinylmethyl	3-oxetanylmethyl
2198	2-benzothiazolylmethyl	3-oxetanylmethyl
2199	2-benzothiophenylmethyl	3-oxetanylmethyl
2200	2-thiomethylethyl	3-oxetanylmethyl
2201	2-thiomethylmethyl	3-oxetanylmethyl
2202	2-methylpropyl	3-oxetanylmethyl
2203	2-methylbutyl	3-oxetanylmethyl
2204	3-methylbutyl	3-oxetanylmethyl
2205	cyclopropylmethyl	3-oxetanylmethyl
2206	cyclobutylmethyl	3-oxetanylmethyl
2207	cyclopentylmethyl	3-oxetanylmethyl
2208	p-hydroxyphenylmethyl	3-oxetanylmethyl
2209	p-nitrophenylmethyl	3-oxetanylmethyl
2210	p-aminophenylmethyl	3-oxetanylmethyl
2211	"4-(N,N-dimethylamino)phenylmethyl"	3-oxetanylmethyl
2212	benzyl	2-tetrahydrofuranyl
2213	1-pyrollylmethyl	2-tetrahydrofuranyl
2214	1-pyrazolylmethyl	2-tetrahydrofuranyl
2215	1-imidazolylmethyl	2-tetrahydrofuranyl
2216	1-indolylmethyl	2-tetrahydrofuranyl
2217	1-triazolylmethyl	2-tetrahydrofuranyl
2218	1-tetrazolylmethyl	2-tetrahydrofuranyl
2219	2-pyridylmethyl	2-tetrahydrofuranyl
2220	3-pyridylmethyl	2-tetrahydrofuranyl
2221	4-pyridylmethyl	2-tetrahydrofuranyl
2222	cyclohexylmethyl	2-tetrahydrofuranyl
2223	2-naphthylmethyl	2-tetrahydrofuranyl
2224	3-naphthylmethyl	2-tetrahydrofuranyl
2225	2-thiophenylmethyl	2-tetrahydrofuranyl
2226	4-(1-methyl)piperidinyl-methyl	2-tetrahydrofuranyl
2227	"(3,4-methylenedioxyphenyl)methyl"	2-tetrahydrofuranyl
2228	2-thienylmethyl	2-tetrahydrofuranyl
2229	4-biphenylmethyl	2-tetrahydrofuranyl
2230	pyrimidinylmethyl	2-tetrahydrofuranyl
2231	2-benzothiazolylmethyl	2-tetrahydrofuranyl
2232	2-benzothiophenylmethyl	2-tetrahydrofuranyl
2233	2-thiomethylethyl	2-tetrahydrofuranyl
2234	2-thiomethylmethyl	2-tetrahydrofuranyl
2235	2-methylpropyl	2-tetrahydrofuranyl
2236	2-methylbutyl	2-tetrahydrofuranyl
2237	3-methylbutyl	2-tetrahydrofuranyl
2238	cyclopropylmethyl	2-tetrahydrofuranyl
2239	cyclobutylmethyl	2-tetrahydrofuranyl
2240	cyclopentylmethyl	2-tetrahydrofuranyl
2241	p-hydroxyphenylmethyl	2-tetrahydrofuranyl
2242	p-nitrophenylmethyl	2-tetrahydrofuranyl
2243	p-aminophenylmethyl	2-tetrahydrofuranyl

Table 4

2244	"4-(N,N-dimethylamino)phenylmethyl"	2-tetrahydrofuranyl
2245	benzyl	2-methoxypropyl
2246	1-pyrolylmethyl	2-methoxypropyl
2247	1-pyrazolylmethyl	2-methoxypropyl
2248	1-imidazolylmethyl	2-methoxypropyl
2249	1-indolylmethyl	2-methoxypropyl
2250	1-triazolylmethyl	2-methoxypropyl
2251	1-tetrazolylmethyl	2-methoxypropyl
2252	2-pyridylmethyl	2-methoxypropyl
2253	3-pyridylmethyl	2-methoxypropyl
2254	4-pyridylmethyl	2-methoxypropyl
2255	cyclohexylmethyl	2-methoxypropyl
2256	2-naphthylmethyl	2-methoxypropyl
2257	3-naphthylmethyl	2-methoxypropyl
2258	2-thiophenylmethyl	2-methoxypropyl
2259	4-(1-methyl)piperidinyl-methyl	2-methoxypropyl
2260	"(3,4-methylenedioxyphenyl)methyl"	2-methoxypropyl
2261	2-thienylmethyl	2-methoxypropyl
2262	4-biphenylmethyl	2-methoxypropyl
2263	pyrimidinylmethyl	2-methoxypropyl
2264	2-benzothiazolylmethyl	2-methoxypropyl
2265	2-benzothiophenylmethyl	2-methoxypropyl
2266	2-thiomethylethyl	2-methoxypropyl
2267	2-thiomethylmethyl	2-methoxypropyl
2268	2-methylpropyl	2-methoxypropyl
2269	2-methylbutyl	2-methoxypropyl
2270	3-methylbutyl	2-methoxypropyl
2271	cyclopropylmethyl	2-methoxypropyl
2272	cyclobutylmethyl	2-methoxypropyl
2273	cyclopentylmethyl	2-methoxypropyl
2274	p-hydroxyphenylmethyl	2-methoxypropyl
2275	p-nitrophenylmethyl	2-methoxypropyl
2276	p-aminophenylmethyl	2-methoxypropyl
2277	"4-(N,N-dimethylamino)phenylmethyl"	2-methoxypropyl
2278	benzyl	2-ethoxyethyl
2279	1-pyrolylmethyl	2-ethoxyethyl
2280	1-pyrazolylmethyl	2-ethoxyethyl
2281	1-imidazolylmethyl	2-ethoxyethyl
2282	1-indolylmethyl	2-ethoxyethyl
2283	1-triazolylmethyl	2-ethoxyethyl
2284	1-tetrazolylmethyl	2-ethoxyethyl
2285	2-pyridylmethyl	2-ethoxyethyl
2286	3-pyridylmethyl	2-ethoxyethyl
2287	4-pyridylmethyl	2-ethoxyethyl
2288	cyclohexylmethyl	2-ethoxyethyl
2289	2-naphthylmethyl	2-ethoxyethyl
2290	3-naphthylmethyl	2-ethoxyethyl
2291	2-thiophenylmethyl	2-ethoxyethyl
2292	4-(1-methyl)piperidinyl-methyl	2-ethoxyethyl
2293	"(3,4-methylenedioxyphenyl)methyl"	2-ethoxyethyl
2294	2-thienylmethyl	2-ethoxyethyl

Table 4

2295	4-biphenylmethyl	2-ethoxyethyl
2296	pyrimidinylmethyl	2-ethoxyethyl
2297	2-benzothiazolylmethyl	2-ethoxyethyl
2298	2-benzothiophenylmethyl	2-ethoxyethyl
2299	2-thiomethylethyl	2-ethoxyethyl
2300	2-thiomethylmethyl	2-ethoxyethyl
2301	2-methylpropyl	2-ethoxyethyl
2302	2-methylbutyl	2-ethoxyethyl
2303	3-methylbutyl	2-ethoxyethyl
2304	cyclopropylmethyl	2-ethoxyethyl
2305	cyclobutylmethyl	2-ethoxyethyl
2306	cyclopentylmethyl	2-ethoxyethyl
2307	p-hydroxyphenylmethyl	2-ethoxyethyl
2308	p-nitrophenylmethyl	2-ethoxyethyl
2309	p-aminophenylmethyl	2-ethoxyethyl
2310	"4-(N,N-dimethylamino)phenylmethyl"	2-ethoxyethyl
2311	benzyl	2-(1-pyrolyl)ethyl
2312	1-pyrollylmethyl	2-(1-pyrolyl)ethyl
2313	1-pyrazolylmethyl	2-(1-pyrolyl)ethyl
2314	1-imidazolylmethyl	2-(1-pyrolyl)ethyl
2315	1-indolylmethyl	2-(1-pyrolyl)ethyl
2316	1-triazolylmethyl	2-(1-pyrolyl)ethyl
2317	1-tetrazolylmethyl	2-(1-pyrolyl)ethyl
2318	2-pyridylmethyl	2-(1-pyrolyl)ethyl
2319	3-pyridylmethyl	2-(1-pyrolyl)ethyl
2320	4-pyridylmethyl	2-(1-pyrolyl)ethyl
2321	cyclohexylmethyl	2-(1-pyrolyl)ethyl
2322	2-naphthylmethyl	2-(1-pyrolyl)ethyl
2323	3-naphthylmethyl	2-(1-pyrolyl)ethyl
2324	2-thiophenylmethyl	2-(1-pyrolyl)ethyl
2325	4-(1-methyl)piperidinyl-methyl	2-(1-pyrolyl)ethyl
2326	"(3,4-methylenedioxyphenyl)methyl"	2-(1-pyrolyl)ethyl
2327	2-thienylmethyl	2-(1-pyrolyl)ethyl
2328	4-biphenylmethyl	2-(1-pyrolyl)ethyl
2329	pyrimidinylmethyl	2-(1-pyrolyl)ethyl
2330	2-benzothiazolylmethyl	2-(1-pyrolyl)ethyl
2331	2-benzothiophenylmethyl	2-(1-pyrolyl)ethyl
2332	2-thiomethylethyl	2-(1-pyrolyl)ethyl
2333	2-thiomethylmethyl	2-(1-pyrolyl)ethyl
2334	2-methylpropyl	2-(1-pyrolyl)ethyl
2335	2-methylbutyl	2-(1-pyrolyl)ethyl
2336	3-methylbutyl	2-(1-pyrolyl)ethyl
2337	cyclopropylmethyl	2-(1-pyrolyl)ethyl
2338	cyclobutylmethyl	2-(1-pyrolyl)ethyl
2339	cyclopentylmethyl	2-(1-pyrolyl)ethyl
2340	p-hydroxyphenylmethyl	2-(1-pyrolyl)ethyl
2341	p-nitrophenylmethyl	2-(1-pyrolyl)ethyl
2342	p-aminophenylmethyl	2-(1-pyrolyl)ethyl
2343	"4-(N,N-dimethylamino)phenylmethyl"	2-(1-pyrolyl)ethyl
2344	benzyl	2-(1-imidazolyl)ethyl
2345	1-pyrollylmethyl	2-(1-imidazolyl)ethyl
2346	1-pyrazolylmethyl	2-(1-imidazolyl)ethyl
2347	1-imidazolylmethyl	2-(1-imidazolyl)ethyl

Table 4

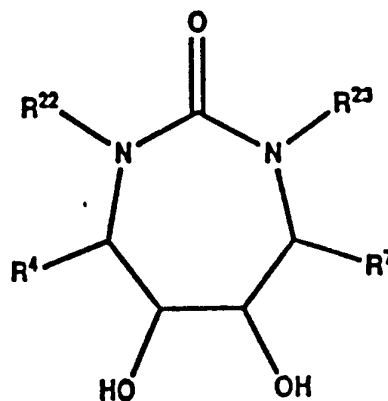
2348	1-indolylmethyl	2-(1-imidazolyl)ethyl
2349	1-triazolylmethyl	2-(1-imidazolyl)ethyl
2350	1-tetrazolylmethyl	2-(1-imidazolyl)ethyl
2351	2-pyridylmethyl	2-(1-imidazolyl)ethyl
2352	3-pyridylmethyl	2-(1-imidazolyl)ethyl
2353	4-pyridylmethyl	2-(1-imidazolyl)ethyl
2354	cyclohexylmethyl	2-(1-imidazolyl)ethyl
2355	2-naphthylmethyl	2-(1-imidazolyl)ethyl
2356	3-naphthylmethyl	2-(1-imidazolyl)ethyl
2357	2-thiophenylmethyl	2-(1-imidazolyl)ethyl
2358	4-(1-methyl)piperidinyl- methyl	2-(1-imidazolyl)ethyl
2359	"(3,4- methylenedioxyphenyl)methyl"	2-(1-imidazolyl)ethyl
2360	2-thienylmethyl	2-(1-imidazolyl)ethyl
2361	4-biphenylmethyl	2-(1-imidazolyl)ethyl
2362	pyrimidinylmethyl	2-(1-imidazolyl)ethyl
2363	2-benzothiazolylmethyl	2-(1-imidazolyl)ethyl
2364	2-benzothiophenylmethyl	2-(1-imidazolyl)ethyl
2365	2-thiomethylethyl	2-(1-imidazolyl)ethyl
2366	2-thiomethylmethyl	2-(1-imidazolyl)ethyl
2367	2-methylpropyl	2-(1-imidazolyl)ethyl
2368	2-methylbutyl	2-(1-imidazolyl)ethyl
2369	3-methylbutyl	2-(1-imidazolyl)ethyl
2370	cyclopropylmethyl	2-(1-imidazolyl)ethyl
2371	cyclobutylmethyl	2-(1-imidazolyl)ethyl
2372	cyclopentylmethyl	2-(1-imidazolyl)ethyl
2373	p-hydroxyphenylmethyl	2-(1-imidazolyl)ethyl
2374	p-nitrophenylmethyl	2-(1-imidazolyl)ethyl
2375	p-aminophenylmethyl	2-(1-imidazolyl)ethyl
2376	"4-(N,N- dimethylamino)phenylmethyl"	2-(1-imidazolyl)ethyl
2377	benzyl	2-pyridylmethyl
2378	1-pyrolylmethyl	2-pyridylmethyl
2379	1-pyrazolylmethyl	2-pyridylmethyl
2380	1-imidazolylmethyl	2-pyridylmethyl
2381	1-indolylmethyl	2-pyridylmethyl
2382	1-triazolylmethyl	2-pyridylmethyl
2383	1-tetrazolylmethyl	2-pyridylmethyl
2384	2-pyridylmethyl	2-pyridylmethyl
2385	3-pyridylmethyl	2-pyridylmethyl
2386	4-pyridylmethyl	2-pyridylmethyl
2387	cyclohexylmethyl	2-pyridylmethyl
2388	2-naphthylmethyl	2-pyridylmethyl
2389	3-naphthylmethyl	2-pyridylmethyl
2390	2-thiophenylmethyl	2-pyridylmethyl
2391	4-(1-methyl)piperidinyl- methyl	2-pyridylmethyl
2392	"(3,4- methylenedioxyphenyl)methyl"	2-pyridylmethyl
2393	2-thienylmethyl	2-pyridylmethyl
2394	4-biphenylmethyl	2-pyridylmethyl
2395	pyrimidinylmethyl	2-pyridylmethyl
2396	2-benzothiazolylmethyl	2-pyridylmethyl
2397	2-benzothiophenylmethyl	2-pyridylmethyl
2398	2-thiomethylethyl	2-pyridylmethyl
2399	2-thiomethylmethyl	2-pyridylmethyl

Table 4

2400	2-methylpropyl	2-pyridylmethyl
2401	2-methylbutyl	2-pyridylmethyl
2402	3-methylbutyl	2-pyridylmethyl
2403	cyclopropylmethyl	2-pyridylmethyl
2404	cyclobutylmethyl	2-pyridylmethyl
2405	cyclopentylmethyl	2-pyridylmethyl
2406	p-hydroxyphenylmethyl	2-pyridylmethyl
2407	p-nitrophenylmethyl	2-pyridylmethyl
2408	p-aminophenylmethyl	2-pyridylmethyl
2409	"4-(N,N-dimethylamino)phenylmethyl"	2-pyridylmethyl
2410	benzyl	2-thiomethylethyl
2411	1-pyrolylmethyl	2-thiomethylethyl
2412	1-pyrazolylmethyl	2-thiomethylethyl
2413	1-imidazolylmethyl	2-thiomethylethyl
2414	1-indolylmethyl	2-thiomethylethyl
2415	1-triazolylmethyl	2-thiomethylethyl
2416	1-tetrazolylmethyl	2-thiomethylethyl
2417	2-pyridylmethyl	2-thiomethylethyl
2418	3-pyridylmethyl	2-thiomethylethyl
2419	4-pyridylmethyl	2-thiomethylethyl
2420	cyclohexylmethyl	2-thiomethylethyl
2421	2-naphthylmethyl	2-thiomethylethyl
2422	3-naphthylmethyl	2-thiomethylethyl
2423	2-thiophenylmethyl	2-thiomethylethyl
2424	4-(1-methyl)piperidinyl-methyl	2-thiomethylethyl
2425	"(3,4-methylenedioxyphenyl)methyl"	2-thiomethylethyl
2426	2-thienylmethyl	2-thiomethylethyl
2427	4-biphenylmethyl	2-thiomethylethyl
2428	pyrimidinylmethyl	2-thiomethylethyl
2429	2-benzothiazolylmethyl	2-thiomethylethyl
2430	2-benzothiophenylmethyl	2-thiomethylethyl
2431	2-thiomethylethyl	2-thiomethylethyl
2432	2-thiomethylmethyl	2-thiomethylethyl
2433	2-methylpropyl	2-thiomethylethyl
2434	2-methylbutyl	2-thiomethylethyl
2435	3-methylbutyl	2-thiomethylethyl
2436	cyclopropylmethyl	2-thiomethylethyl
2437	cyclobutylmethyl	2-thiomethylethyl
2438	cyclopentylmethyl	2-thiomethylethyl
2439	p-hydroxyphenylmethyl	2-thiomethylethyl
2440	p-nitrophenylmethyl	2-thiomethylethyl
2441	p-aminophenylmethyl	2-thiomethylethyl
2442	"4-(N,N-dimethylamino)phenylmethyl"	2-thiomethylethyl

Table 5

TABLE 5



$$R^4; R^7; R^{22} = R^{23}$$

<u>Example R4</u> <u>Number</u>	<u>R7</u>	<u>R22 = R23</u>
2443	benzyl	"4-(N,N-dimethylamino)phenyl-methyl"
2444	1-pyrolylmethyl	benzyl
2445	1-pyrazolylmethyl	1-pyrolylmethyl
2446	1-imidazolylmethyl	1-pyrazolylmethyl
2447	1-indolylmethyl	1-imidazolylmethyl
2448	1-triazolylmethyl	1-indolylmethyl
2449	1-tetrazolylmethyl	1-triazolylmethyl
2450	2-pyridylmethyl	1-tetrazolylmethyl
2451	3-pyridylmethyl	2-pyridylmethyl
2452	4-pyridylmethyl	3-pyridylmethyl
2453	cyclohexylmethyl	4-pyridylmethyl
2454	2-naphthylmethyl	cyclohexylmethyl
2455	3-naphthylmethyl	2-naphthylmethyl
2456	2-thiophenylmethyl	3-naphthylmethyl
2457	4-(1-methyl)piperidylmethyl	2-thiophenylmethyl
2458	"(3,4-methylenedioxy-phenyl)methyl"	4-(1-methyl)piperidyl-methyl
2459	2-thienylmethyl	"(3,4-methylenedioxy-phenyl)methyl"
2460	4-biphenylmethyl	2-thienylmethyl
2461	pyrimidinylmethyl	4-biphenylmethyl
2462	2-benzothiazolyl-methyl	pyrimidinylmethyl
2463	2-benzothiophenyl-methyl	2-benzothiazolyl-methyl

Table 5

2464	2-thiomethylethyl	2-benzothiophenyl-methyl	allyl
2465	2-thiomethylmethyl	2-thiomethylethyl	allyl
2466	2-methylpropyl	2-thiomethylmethyl	allyl
2467	2-methylbutyl	2-methylpropyl	allyl
2468	3-methylbutyl	2-methylbutyl	allyl
2469	cyclopropylmethyl	3-methylbutyl	allyl
2470	cyclobutylmethyl	cyclopropylmethyl	allyl
2471	cyclopentylmethyl	cyclobutylmethyl	allyl
2472	p-hydroxyphenyl-methyl	cyclopentylmethyl	allyl
2473	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	allyl
2474	p-aminophenyl-methyl	p-nitrophenylmethyl	allyl
2475	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	allyl
2476	benzyl	"4-(N,N-dimethylamino)-phenyl-methyl"	propyl
2477	1-pyrolylmethyl	benzyl	propyl
2478	1-pyrazolylmethyl	1-pyrolylmethyl	propyl
2479	1-imidazolylmethyl	1-pyrazolylmethyl	propyl
2480	1-indolylmethyl	1-imidazolylmethyl	propyl
2481	1-triazolylmethyl	1-indolylmethyl	propyl
2482	1-tetrazolylmethyl	1-triazolylmethyl	propyl
2483	2-pyridylmethyl	1-tetrazolylmethyl	propyl
2484	3-pyridylmethyl	2-pyridylmethyl	propyl
2485	4-pyridylmethyl	3-pyridylmethyl	propyl
2486	cyclohexylmethyl	4-pyridylmethyl	propyl
2487	2-naphthylmethyl	cyclohexylmethyl	propyl
2488	3-naphthylmethyl	2-naphthylmethyl	propyl
2489	2-thiophenylmethyl	3-naphthylmethyl	propyl
2490	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	propyl
2491	"(3,4-methylene-dioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	propyl
2492	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	propyl
2493	4-biphenylmethyl	2-thienylmethyl	propyl
2494	pyrimidinylmethyl	4-biphenylmethyl	propyl
2495	2-benzothiazolylmethyl	pyrimidinylmethyl	propyl
2496	2-benzothiophenylmethyl	2-benzothiazolylmethyl	propyl
2497	2-thiomethylethyl	2-benzothiophenylmethyl	propyl
2498	2-thiomethylmethyl	2-thiomethylethyl	propyl
2499	2-methylpropyl	2-thiomethylmethyl	propyl
2500	2-methylbutyl	2-methylpropyl	propyl
2501	3-methylbutyl	2-methylbutyl	propyl
2502	cyclopropylmethyl	3-methylbutyl	propyl
2503	cyclobutylmethyl	cyclopropylmethyl	propyl
2504	cyclopentylmethyl	cyclobutylmethyl	propyl
2505	p-hydroxyphenyl-methyl	cyclopentylmethyl	propyl
2506	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	propyl
2507	p-aminophenyl-methyl	p-nitrophenylmethyl	propyl
2508	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	propyl
2509	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	n-butyl
2510	1-pyrolylmethyl	benzyl	n-butyl

Table 5

2511	1-pyrazolylmethyl	1-pyrollylmethyl	n-butyl
2512	1-imidazolylmethyl	1-pyrazolylmethyl	n-butyl
2513	1-indolylmethyl	1-imidazolylmethyl	n-butyl
2514	1-triazolylmethyl	1-indolylmethyl	n-butyl
2515	1-tetrazolylmethyl	1-triazolylmethyl	n-butyl
2516	2-pyridylmethyl	1-tetrazolylmethyl	n-butyl
2517	3-pyridylmethyl	2-pyridylmethyl	n-butyl
2518	4-pyridylmethyl	3-pyridylmethyl	n-butyl
2519	cyclohexylmethyl	4-pyridylmethyl	n-butyl
2520	2-naphthylmethyl	cyclohexylmethyl	n-butyl
2521	3-naphthylmethyl	2-naphthylmethyl	n-butyl
2522	2-thiophenylmethyl	3-naphthylmethyl	n-butyl
2523	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	n-butyl
2524	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	n-butyl
2525	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	n-butyl
2526	4-biphenylmethyl	2-thienylmethyl	n-butyl
2527	pyrimidinylmethyl	4-biphenylmethyl	n-butyl
2528	2-benzothiazolylmethyl	pyrimidinylmethyl	n-butyl
2529	2-benzothiophenylmethyl	2-benzothiazolylmethyl	n-butyl
2530	2-thiomethylethyl	2-benzothiophenylmethyl	n-butyl
2531	2-thiomethylmethyl	2-thiomethylethyl	n-butyl
2532	2-methylpropyl	2-thiomethylmethyl	n-butyl
2533	2-methylbutyl	2-methylpropyl	n-butyl
2534	3-methylbutyl	2-methylbutyl	n-butyl
2535	cyclopropylmethyl	3-methylbutyl	n-butyl
2536	cyclobutylmethyl	cyclopropylmethyl	n-butyl
2537	cyclopentylmethyl	cyclobutylmethyl	n-butyl
2538	p-hydroxyphenyl-methyl	cyclopentylmethyl	n-butyl
2539	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	n-butyl
2540	p-aminophenyl-methyl	p-nitrophenylmethyl	n-butyl
2541	"4-(N,N-dimethyl-amino)phenyl-methyl"	p-aminophenyl-methyl	n-butyl
2542	benzyl	"4-(N,N-dimethyl-amino)-phenylmethyl"	isobutyl
2543	1-pyrollylmethyl	benzyl	isobutyl
2544	1-pyrazolylmethyl	1-pyrollylmethyl	isobutyl
2545	1-imidazolylmethyl	1-pyrazolylmethyl	isobutyl
2546	1-indolylmethyl	1-imidazolylmethyl	isobutyl
2547	1-triazolylmethyl	1-indolylmethyl	isobutyl
2548	1-tetrazolylmethyl	1-triazolylmethyl	isobutyl
2549	2-pyridylmethyl	1-tetrazolylmethyl	isobutyl
2550	3-pyridylmethyl	2-pyridylmethyl	isobutyl
2551	4-pyridylmethyl	3-pyridylmethyl	isobutyl
2552	cyclohexylmethyl	4-pyridylmethyl	isobutyl
2553	2-naphthylmethyl	cyclohexylmethyl	isobutyl
2554	3-naphthylmethyl	2-naphthylmethyl	isobutyl
2555	2-thiophenylmethyl	3-naphthylmethyl	isobutyl
2556	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	isobutyl

Table 5

2557	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	isobutyl
2558	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	isobutyl
2559	4-biphenylmethyl	2-thienylmethyl	isobutyl
2560	pyrimidinylmethyl	4-biphenylmethyl	isobutyl
2561	2-benzothiazolylmethyl	pyrimidinylmethyl	isobutyl
2562	2-benzothiophenylmethyl	2-benzothiazolylmethyl	isobutyl
2563	2-thiomethylethyl	2-benzothiophenylmethyl	isobutyl
2564	2-thiomethylmethyl	2-thiomethylethyl	isobutyl
2565	2-methylpropyl	2-thiomethylmethyl	isobutyl
2566	2-methylbutyl	2-methylpropyl	isobutyl
2567	3-methylbutyl	2-methylbutyl	isobutyl
2568	cyclopropylmethyl	3-methylbutyl	isobutyl
2569	cyclobutylmethyl	cyclopropylmethyl	isobutyl
2570	cyclopentylmethyl	cyclobutylmethyl	isobutyl
2571	p-hydroxyphenyl-methyl	cyclopentylmethyl	isobutyl
2572	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	isobutyl
2573	p-aminophenyl-methyl	p-nitrophenylmethyl	isobutyl
2574	"4-(N,N-dimethyl-amino)-phenylmethyl"	p-aminophenyl-methyl	isobutyl
2575	benzyl	"4-(N,N-dimethyl-amino)-phenylmethyl"	2-butyl
2576	1-pyrollylmethyl	benzyl	2-butyl
2577	1-pyrazolylmethyl	1-pyrollylmethyl	2-butyl
2578	1-imidazolylmethyl	1-pyrazolylmethyl	2-butyl
2579	1-indolylmethyl	1-imidazolylmethyl	2-butyl
2580	1-triazolylmethyl	1-indolylmethyl	2-butyl
2581	1-tetrazolylmethyl	1-triazolylmethyl	2-butyl
2582	2-pyridylmethyl	1-tetrazolylmethyl	2-butyl
2583	3-pyridylmethyl	2-pyridylmethyl	2-butyl
2584	4-pyridylmethyl	3-pyridylmethyl	2-butyl
2585	cyclohexylmethyl	4-pyridylmethyl	2-butyl
2586	2-naphthylmethyl	cyclohexylmethyl	2-butyl
2587	3-naphthylmethyl	2-naphthylmethyl	2-butyl
2588	2-thiophenylmethyl	3-naphthylmethyl	2-butyl
2589	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	2-butyl
2590	"(3,4-methylene-dioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	2-butyl
2591	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	2-butyl
2592	4-biphenylmethyl	2-thienylmethyl	2-butyl
2593	pyrimidinylmethyl	4-biphenylmethyl	2-butyl
2594	2-benzothiazolylmethyl	pyrimidinylmethyl	2-butyl
2595	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-butyl
2596	2-thiomethylethyl	2-benzothiophenylmethyl	2-butyl
2597	2-thiomethylmethyl	2-thiomethylethyl	2-butyl
2598	2-methylpropyl	2-thiomethylmethyl	2-butyl
2599	2-methylbutyl	2-methylpropyl	2-butyl
2600	3-methylbutyl	2-methylbutyl	2-butyl
2601	cyclopropylmethyl	3-methylbutyl	2-butyl

Table 5

2602	cyclobutylmethyl	cyclopropylmethyl	2-butyl
2603	cyclopentylmethyl	cyclobutylmethyl	2-butyl
2604	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-butyl
2605	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-butyl
2606	p-aminophenyl-methyl	p-nitrophenylmethyl	2-butyl
2607	"4-(N,N-dimethyl-amino)-phenylmethyl"	p-aminophenyl-methyl	2-butyl
2608	benzyl	"4-(N,N-dimethyl-amino)phenylmethyl"	"3,3-dimethallyl"
2609	1-pyrolylmethyl	benzyl	"3,3-dimethallyl"
2610	1-pyrazolylmethyl	1-pyrolylmethyl	"3,3-dimethallyl"
2611	1-imidazolylmethyl	1-pyrazolylmethyl	"3,3-dimethallyl"
2612	1-indolylmethyl	1-imidazolylmethyl	"3,3-dimethallyl"
2613	1-triazolylmethyl	1-indolylmethyl	"3,3-dimethallyl"
2614	1-tetrazolylmethyl	1-triazolylmethyl	"3,3-dimethallyl"
2615	2-pyridylmethyl	1-tetrazolylmethyl	"3,3-dimethallyl"
2616	3-pyridylmethyl	2-pyridylmethyl	"3,3-dimethallyl"
2617	4-pyridylmethyl	3-pyridylmethyl	"3,3-dimethallyl"
2618	cyclohexylmethyl	4-pyridylmethyl	"3,3-dimethallyl"
2619	2-naphthylmethyl	cyclohexylmethyl	"3,3-dimethallyl"
2620	3-naphthylmethyl	2-naphthylmethyl	"3,3-dimethallyl"
2621	2-thiophenylmethyl	3-naphthylmethyl	"3,3-dimethallyl"
2622	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	"3,3-dimethallyl"
2623	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	"3,3-dimethallyl"
2624	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	"3,3-dimethallyl"
2625	4-biphenylmethyl	2-thienylmethyl	"3,3-dimethallyl"
2626	pyrimidinylmethyl	4-biphenylmethyl	"3,3-dimethallyl"
2627	2-benzothiazolylmethyl	pyrimidinylmethyl	"3,3-dimethallyl"
2628	2-benzothiophenylmethyl	2-benzothiazolylmethyl	"3,3-dimethallyl"
2629	2-thiomethylethyl	2-benzothiophenylmethyl	"3,3-dimethallyl"
2630	2-thiomethylmethyl	2-thiomethylethyl	"3,3-dimethallyl"
2631	2-methylpropyl	2-thiomethylmethyl	"3,3-dimethallyl"

Table 5

2632	2-methylbutyl	2-methylpropyl	"3,3-dimethallyl"
2633	3-methylbutyl	2-methylbutyl	"3,3-dimethallyl"
2634	cyclopropylmethyl	3-methylbutyl	"3,3-dimethallyl"
2635	cyclobutylmethyl	cyclopropylmethyl	"3,3-dimethallyl"
2636	cyclopentylmethyl	cyclobutylmethyl	"3,3-dimethallyl"
2637	p-hydroxyphenyl-methyl	cyclopentylmethyl	"3,3-dimethallyl"
2638	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	"3,3-dimethallyl"
2639	p-aminophenyl-methyl	p-nitrophenylmethyl	"3,3-dimethallyl"
2640	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	"3,3-dimethallyl"
2641	benzyl	"4-(N,N-dimethylamino)-phenyl-methyl"	3-methallyl
2642	1-pyrolylmethyl	benzyl	3-methallyl
2643	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl
2644	1-imidazolylmethyl	1-pyrazolylmethyl	3-methallyl
2645	1-indolylmethyl	1-imidazolylmethyl	3-methallyl
2646	1-triazolylmethyl	1-indolylmethyl	3-methallyl
2647	1-tetrazolylmethyl	1-triazolylmethyl	3-methallyl
2648	2-pyridylmethyl	1-tetrazolylmethyl	3-methallyl
2649	3-pyridylmethyl	2-pyridylmethyl	3-methallyl
2650	4-pyridylmethyl	3-pyridylmethyl	3-methallyl
2651	cyclohexylmethyl	4-pyridylmethyl	3-methallyl
2652	2-naphthylmethyl	cyclohexylmethyl	3-methallyl
2653	3-naphthylmethyl	2-naphthylmethyl	3-methallyl
2654	2-thiophenylmethyl	3-naphthylmethyl	3-methallyl
2655	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	3-methallyl
2656	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methallyl
2657	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	3-methallyl
2658	4-biphenylmethyl	2-thienylmethyl	3-methallyl
2659	pyrimidinylmethyl	4-biphenylmethyl	3-methallyl
2660	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methallyl
2661	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methallyl
2662	2-thiomethylethyl	2-benzothiophenylmethyl	3-methallyl
2663	2-thiomethylmethyl	2-thiomethylethyl	3-methallyl
2664	2-methylpropyl	2-thiomethylmethyl	3-methallyl
2665	2-methylbutyl	2-methylpropyl	3-methallyl
2666	3-methylbutyl	2-methylbutyl	3-methallyl
2667	cyclopropylmethyl	3-methylbutyl	3-methallyl
2668	cyclobutylmethyl	cyclopropylmethyl	3-methallyl
2669	cyclopentylmethyl	cyclobutylmethyl	3-methallyl
2670	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-methallyl

Table 5

2671	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-methallyl
2672	p-aminophenyl-methyl	p-nitrophenylmethyl	3-methallyl
2673	"4-(N,N-dimethyl-amino)-phenyl-methyl"	p-aminophenyl-methyl	3-methallyl
2674	benzyl	"4-(N,N-dimethyl-amino)phenylmethyl"	2-methallyl
2675	1-pyrolylmethyl	benzyl	2-methallyl
2676	1-pyrazolylmethyl	1-pyrolylmethyl	2-methallyl
2677	1-imidazolylmethyl	1-pyrazolylmethyl	2-methallyl
2678	1-indolylmethyl	1-imidazolylmethyl	2-methallyl
2679	1-triazolylmethyl	1-indolylmethyl	2-methallyl
2680	1-tetrazolylmethyl	1-triazolylmethyl	2-methallyl
2681	2-pyridylmethyl	1-tetrazolylmethyl	2-methallyl
2682	3-pyridylmethyl	2-pyridylmethyl	2-methallyl
2683	4-pyridylmethyl	3-pyridylmethyl	2-methallyl
2684	cyclohexylmethyl	4-pyridylmethyl	2-methallyl
2685	2-naphthylmethyl	cyclohexylmethyl	2-methallyl
2686	3-naphthylmethyl	2-naphthylmethyl	2-methallyl
2687	2-thiophenylmethyl	3-naphthylmethyl	2-methallyl
2688	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-methallyl
2689	"(3,4-methylene-dioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	2-methallyl
2690	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	2-methallyl
2691	4-biphenylmethyl	2-thienylmethyl	2-methallyl
2692	pyrimidinylmethyl	4-biphenylmethyl	2-methallyl
2693	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methallyl
2694	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methallyl
2695	2-thiomethylethyl	2-benzothiophenylmethyl	2-methallyl
2696	2-thiomethylmethyl	2-thiomethylethyl	2-methallyl
2697	2-methylpropyl	2-thiomethylmethyl	2-methallyl
2698	2-methylbutyl	2-methylpropyl	2-methallyl
2699	3-methylbutyl	2-methylbutyl	2-methallyl
2700	cyclopropylmethyl	3-methylbutyl	2-methallyl
2701	cyclobutylmethyl	cyclopropylmethyl	2-methallyl
2702	cyclopentylmethyl	cyclobutylmethyl	2-methallyl
2703	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-methallyl
2704	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-methallyl
2705	p-aminophenyl-methyl	p-nitrophenylmethyl	2-methallyl
2706	"4-(N,N-dimethyl-amino)-phenylmethyl"	p-aminophenyl-methyl	2-methallyl
2707	benzyl	"4-(N,N-dimethyl-amino)-phenylmethyl"	2-propyl
2708	1-pyrolylmethyl	benzyl	2-propyl
2709	1-pyrazolylmethyl	1-pyrolylmethyl	2-propyl
2710	1-imidazolylmethyl	1-pyrazolylmethyl	2-propyl
2711	1-indolylmethyl	1-imidazolylmethyl	2-propyl
2712	1-triazolylmethyl	1-indolylmethyl	2-propyl
2713	1-tetrazolylmethyl	1-triazolylmethyl	2-propyl
2714	2-pyridylmethyl	1-tetrazolylmethyl	2-propyl
2715	3-pyridylmethyl	2-pyridylmethyl	2-propyl
2716	4-pyridylmethyl	3-pyridylmethyl	2-propyl
2717	cyclohexylmethyl	4-pyridylmethyl	2-propyl

Table 5

2718	2-naphthylmethyl	cyclohexylmethyl	2-propyl
2719	3-naphthylmethyl	2-naphthylmethyl	2-propyl
2720	2-thiophenylmethyl	3-naphthylmethyl	2-propyl
2721	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-propyl
2722	"(3,4-methylene-dioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	2-propyl
2723	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)methyl"	2-propyl
2724	4-biphenylmethyl	2-thienylmethyl	2-propyl
2725	pyrimidinylmethyl	4-biphenylmethyl	2-propyl
2726	2-benzothiazolylmethyl	pyrimidinylmethyl	2-propyl
2727	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-propyl
2728	2-thiomethylethyl	2-benzothiophenylmethyl	2-propyl
2729	2-thiomethylmethyl	2-thiomethylethyl	2-propyl
2730	2-methylpropyl	2-thiomethylmethyl	2-propyl
2731	2-methylbutyl	2-methylpropyl	2-propyl
2732	3-methylbutyl	2-methylbutyl	2-propyl
2733	cyclopropylmethyl	3-methylbutyl	2-propyl
2734	cyclobutylmethyl	cyclopropylmethyl	2-propyl
2735	cyclopentylmethyl	cyclobutylmethyl	2-propyl
2736	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-propyl
2737	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-propyl
2738	p-aminophenyl-methyl	p-nitrophenylmethyl	2-propyl
2739	"4-(N,N-dimethyl-amino)-phenylmethyl"	p-aminophenyl-methyl	2-propyl
2740	benzyl	"4-(N,N-dimethyl-amino)phenylmethyl"	cyclopropyl
2741	1-pyrollylmethyl	benzyl	cyclopropyl
2742	1-pyrazolylmethyl	1-pyrollylmethyl	cyclopropyl
2743	1-imidazolylmethyl	1-pyrazolylmethyl	cyclopropyl
2744	1-indolylmethyl	1-imidazolylmethyl	cyclopropyl
2745	1-triazolylmethyl	1-indolylmethyl	cyclopropyl
2746	1-tetrazolylmethyl	1-triazolylmethyl	cyclopropyl
2747	2-pyridylmethyl	1-tetrazolylmethyl	cyclopropyl
2748	3-pyridylmethyl	2-pyridylmethyl	cyclopropyl
2749	4-pyridylmethyl	3-pyridylmethyl	cyclopropyl
2750	cyclohexylmethyl	4-pyridylmethyl	cyclopropyl
2751	2-naphthylmethyl	cyclohexylmethyl	cyclopropyl
2752	3-naphthylmethyl	2-naphthylmethyl	cyclopropyl
2753	2-thiophenylmethyl	3-naphthylmethyl	cyclopropyl
2754	4-(1-methyl)-piperidinyl-methyl	2-thiophenylmethyl	cyclopropyl
2755	"(3,4-methylene-dioxyphenyl)methyl"	4-(1-methyl)-piperidinyl-methyl	cyclopropyl
2756	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropyl
2757	4-biphenylmethyl	2-thienylmethyl	cyclopropyl
2758	pyrimidinylmethyl	4-biphenylmethyl	cyclopropyl
2759	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopropyl
2760	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopropyl

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2761	2-thiomethylethyl	2-benzothiophenylmethyl	cyclopropyl
2762	2-thiomethylmethyl	2-thiomethylethyl	cyclopropyl
2763	2-methylpropyl	2-thiomethylmethyl	cyclopropyl
2764	2-methylbutyl	2-methylpropyl	cyclopropyl
2765	3-methylbutyl	2-methylbutyl	cyclopropyl
2766	cyclopropylmethyl	3-methylbutyl	cyclopropyl
2767	cyclobutylmethyl	cyclopropylmethyl	cyclopropyl
2768	cyclopentylmethyl	cyclobutylmethyl	cyclopropyl
2769	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclopropyl
2770	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclopropyl
2771	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclopropyl
2772	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclopropyl
2773	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropylmethyl
2774	1-pyrolylmethyl	benzyl	cyclopropylmethyl
2775	1-pyrazolylmethyl	1-pyrolylmethyl	cyclopropylmethyl
2776	1-imidazolylmethyl	1-pyrazolylmethyl	cyclopropylmethyl
2777	1-indolylmethyl	1-imidazolylmethyl	cyclopropylmethyl
2778	1-triazolylmethyl	1-indolylmethyl	cyclopropylmethyl
2779	1-tetrazolylmethyl	1-triazolylmethyl	cyclopropylmethyl
2780	2-pyridylmethyl	1-tetrazolylmethyl	cyclopropylmethyl
2781	3-pyridylmethyl	2-pyridylmethyl	cyclopropylmethyl
2782	4-pyridylmethyl	3-pyridylmethyl	cyclopropylmethyl
2783	cyclohexylmethyl	4-pyridylmethyl	cyclopropylmethyl
2784	2-naphthylmethyl	cyclohexylmethyl	cyclopropylmethyl
2785	3-naphthylmethyl	2-naphthylmethyl	cyclopropylmethyl
2786	2-thiophenylmethyl	3-naphthylmethyl	cyclopropylmethyl
2787	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclopropylmethyl
2788	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclopropylmethyl
2789	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropylmethyl
2790	4-biphenylmethyl	2-thienylmethyl	cyclopropylmethyl
2791	pyrimidinylmethyl	4-biphenylmethyl	cyclopropylmethyl

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2792	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopropylmethyl
2793	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopropylmethyl
2794	2-thiomethylethyl	2-benzothiophenylmethyl	cyclopropylmethyl
2795	2-thiomethylmethyl	2-thiomethylethyl	cyclopropylmethyl
2796	2-methylpropyl	2-thiomethylmethyl	cyclopropylmethyl
2797	2-methylbutyl	2-methylpropyl	cyclopropylmethyl
2798	3-methylbutyl	2-methylbutyl	cyclopropylmethyl
2799	cyclopropylmethyl	3-methylbutyl	cyclopropylmethyl
2800	cyclobutylmethyl	cyclopropylmethyl	cyclopropylmethyl
2801	cyclopentylmethyl	cyclobutylmethyl	cyclopropylmethyl
2802	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclopropylmethyl
2803	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclopropylmethyl
2804	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclopropylmethyl
2805	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclopropylmethyl
2806	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	n-pentyl
2807	1-pyrollylmethyl	benzyl	n-pentyl
2808	1-pyrazolylmethyl	1-pyrollylmethyl	n-pentyl
2809	1-imidazolylmethyl	1-pyrazolylmethyl	n-pentyl
2810	1-indolylmethyl	1-imidazolylmethyl	n-pentyl
2811	1-triazolylmethyl	1-indolylmethyl	n-pentyl
2812	1-tetrazolylmethyl	1-triazolylmethyl	n-pentyl
2813	2-pyridylmethyl	1-tetrazolylmethyl	n-pentyl
2814	3-pyridylmethyl	2-pyridylmethyl	n-pentyl
2815	4-pyridylmethyl	3-pyridylmethyl	n-pentyl
2816	cyclohexylmethyl	4-pyridylmethyl	n-pentyl
2817	2-naphthylmethyl	cyclohexylmethyl	n-pentyl
2818	3-naphthylmethyl	2-naphthylmethyl	n-pentyl
2819	2-thiophenylmethyl	3-naphthylmethyl	n-pentyl
2820	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	n-pentyl
2821	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	n-pentyl
2822	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	n-pentyl
2823	4-biphenylmethyl	2-thienylmethyl	n-pentyl
2824	pyrimidinylmethyl	4-biphenylmethyl	n-pentyl
2825	2-benzothiazolylmethyl	pyrimidinylmethyl	n-pentyl

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2826	2-benzothiofenylmethyl	2-benzothiazolylmethyl	n-pentyl
2827	2-thiomethylethyl	2-benzothiofenylmethyl	n-pentyl
2828	2-thiomethylmethyl	2-thiomethylethyl	n-pentyl
2829	2-methylpropyl	2-thiomethylmethyl	n-pentyl
2830	2-methylbutyl	2-methylpropyl	n-pentyl
2831	3-methylbutyl	2-methylbutyl	n-pentyl
2832	cyclopropylmethyl	3-methylbutyl	n-pentyl
2833	cyclobutylmethyl	cyclopropylmethyl	n-pentyl
2834	cyclopentylmethyl	cyclobutylmethyl	n-pentyl
2835	p-hydroxyphenyl-methyl	cyclopentylmethyl	n-pentyl
2836	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	n-pentyl
2837	p-aminophenyl-methyl	p-nitrophenylmethyl	n-pentyl
2838	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	n-pentyl
2839	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-pentyl
2840	1-pyrollylmethyl	benzyl	2-pentyl
2841	1-pyrazolylmethyl	1-pyrollylmethyl	2-pentyl
2842	1-imidazolylmethyl	1-pyrazolylmethyl	2-pentyl
2843	1-indolylmethyl	1-imidazolylmethyl	2-pentyl
2844	1-triazolylmethyl	1-indolylmethyl	2-pentyl
2845	1-tetrazolylmethyl	1-triazolylmethyl	2-pentyl
2846	2-pyridylmethyl	1-tetrazolylmethyl	2-pentyl
2847	3-pyridylmethyl	2-pyridylmethyl	2-pentyl
2848	4-pyridylmethyl	3-pyridylmethyl	2-pentyl
2849	cyclohexylmethyl	4-pyridylmethyl	2-pentyl
2850	2-naphthylmethyl	cyclohexylmethyl	2-pentyl
2851	3-naphthylmethyl	2-naphthylmethyl	2-pentyl
2852	2-thiophenylmethyl	3-naphthylmethyl	2-pentyl
2853	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-pentyl
2854	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-pentyl
2855	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-pentyl
2856	4-biphenylmethyl	2-thienylmethyl	2-pentyl
2857	pyrimidinylmethyl	4-biphenylmethyl	2-pentyl
2858	2-benzothiazolylmethyl	pyrimidinylmethyl	2-pentyl
2859	2-benzothiofenylmethyl	2-benzothiazolylmethyl	2-pentyl
2860	2-thiomethylethyl	2-benzothiofenylmethyl	2-pentyl
2861	2-thiomethylmethyl	2-thiomethylethyl	2-pentyl
2862	2-methylpropyl	2-thiomethylmethyl	2-pentyl
2863	2-methylbutyl	2-methylpropyl	2-pentyl
2864	3-methylbutyl	2-methylbutyl	2-pentyl
2865	cyclopropylmethyl	3-methylbutyl	2-pentyl
2866	cyclobutylmethyl	cyclopropylmethyl	2-pentyl
2867	cyclopentylmethyl	cyclobutylmethyl	2-pentyl
2868	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-pentyl

Table 5

2869	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-pentyl
2870	p-aminophenyl-methyl	p-nitrophenylmethyl	2-pentyl
2871	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-pentyl
2872	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-pentyl
2873	1-pyrolylmethyl	benzyl	3-pentyl
2874	1-pyrazolylmethyl	1-pyrolylmethyl	3-pentyl
2875	1-imidazolylmethyl	1-pyrazolylmethyl	3-pentyl
2876	1-indolylmethyl	1-imidazolylmethyl	3-pentyl
2877	1-triazolylmethyl	1-indolylmethyl	3-pentyl
2878	1-tetrazolylmethyl	1-triazolylmethyl	3-pentyl
2879	2-pyridylmethyl	1-tetrazolylmethyl	3-pentyl
2880	3-pyridylmethyl	2-pyridylmethyl	3-pentyl
2881	4-pyridylmethyl	3-pyridylmethyl	3-pentyl
2882	cyclohexylmethyl	4-pyridylmethyl	3-pentyl
2883	2-naphthylmethyl	cyclohexylmethyl	3-pentyl
2884	3-naphthylmethyl	2-naphthylmethyl	3-pentyl
2885	2-thiophenylmethyl	3-naphthylmethyl	3-pentyl
2886	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-pentyl
2887	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-pentyl
2888	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-pentyl
2889	4-biphenylmethyl	2-thienylmethyl	3-pentyl
2890	pyrimidinylmethyl	4-biphenylmethyl	3-pentyl
2891	2-benzothiazolylmethyl	pyrimidinylmethyl	3-pentyl
2892	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-pentyl
2893	2-thiomethylethyl	2-benzothiophenylmethyl	3-pentyl
2894	2-thiomethylmethyl	2-thiomethylethyl	3-pentyl
2895	2-methylpropyl	2-thiomethylmethyl	3-pentyl
2896	2-methylbutyl	2-methylpropyl	3-pentyl
2897	3-methylbutyl	2-methylbutyl	3-pentyl
2898	cyclopropylmethyl	3-methylbutyl	3-pentyl
2899	cyclobutylmethyl	cyclopropylmethyl	3-pentyl
2900	cyclopentylmethyl	cyclobutylmethyl	3-pentyl
2901	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-pentyl
2902	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-pentyl
2903	p-aminophenyl-methyl	p-nitrophenylmethyl	3-pentyl
2904	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-pentyl
2905	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl
2906	1-pyrolylmethyl	benzyl	3-methylbutyl
2907	1-pyrazolylmethyl	1-pyrolylmethyl	3-methylbutyl
2908	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
2909	1-indolylmethyl	1-imidazolylmethyl	3-methylbutyl

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2910	1-triazolylmethyl	1-indolylmethyl	3-methylbutyl
2911	1-tetrazolylmethyl	1-triazolylmethyl	3-methylbutyl
2912	2-pyridylmethyl	1-tetrazolylmethyl	3-methylbutyl
2913	3-pyridylmethyl	2-pyridylmethyl	3-methylbutyl
2914	4-pyridylmethyl	3-pyridylmethyl	3-methylbutyl
2915	cyclohexylmethyl	4-pyridylmethyl	3-methylbutyl
2916	2-naphthylmethyl	cyclohexylmethyl	3-methylbutyl
2917	3-naphthylmethyl	2-naphthylmethyl	3-methylbutyl
2918	2-thiophenylmethyl	3-naphthylmethyl	3-methylbutyl
2919	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-methylbutyl
2920	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methylbutyl
2921	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl
2922	4-biphenylmethyl	2-thienylmethyl	3-methylbutyl
2923	pyrimidinylmethyl	4-biphenylmethyl	3-methylbutyl
2924	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylbutyl
2925	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylbutyl
2926	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylbutyl
2927	2-thiomethylmethyl	2-thiomethylethyl	3-methylbutyl
2928	2-methylpropyl	2-thiomethylmethyl	3-methylbutyl
2929	2-methylbutyl	2-methylpropyl	3-methylbutyl
2930	3-methylbutyl	2-methylbutyl	3-methylbutyl
2931	cyclopropylmethyl	3-methylbutyl	3-methylbutyl
2932	cyclobutylmethyl	cyclopropylmethyl	3-methylbutyl
2933	cyclopentylmethyl	cyclobutylmethyl	3-methylbutyl
2934	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-methylbutyl
2935	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-methylbutyl
2936	p-aminophenyl-methyl	p-nitrophenylmethyl	3-methylbutyl
2937	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-methylbutyl
2938	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-methylbutyl
2939	1-pyrolylmethyl	benzyl	2-methylbutyl
2940	1-pyrazolylmethyl	1-pyrolylmethyl	2-methylbutyl
2941	1-imidazolylmethyl	1-pyrazolylmethyl	2-methylbutyl
2942	1-indolylmethyl	1-imidazolylmethyl	2-methylbutyl
2943	1-triazolylmethyl	1-indolylmethyl	2-methylbutyl
2944	1-tetrazolylmethyl	1-triazolylmethyl	2-methylbutyl
2945	2-pyridylmethyl	1-tetrazolylmethyl	2-methylbutyl
2946	3-pyridylmethyl	2-pyridylmethyl	2-methylbutyl
2947	4-pyridylmethyl	3-pyridylmethyl	2-methylbutyl
2948	cyclohexylmethyl	4-pyridylmethyl	2-methylbutyl
2949	2-naphthylmethyl	cyclohexylmethyl	2-methylbutyl
2950	3-naphthylmethyl	2-naphthylmethyl	2-methylbutyl
2951	2-thiophenylmethyl	3-naphthylmethyl	2-methylbutyl
2952	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-methylbutyl

Table 5

2953	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-methylbutyl
2954	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-methylbutyl
2955	4-biphenylmethyl	2-thienylmethyl	2-methylbutyl
2956	pyrimidinylmethyl	4-biphenylmethyl	2-methylbutyl
2957	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methylbutyl
2958	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methylbutyl
2959	2-thiomethylethyl	2-benzothiophenylmethyl	2-methylbutyl
2960	2-thiomethylmethyl	2-thiomethylethyl	2-methylbutyl
2961	2-methylpropyl	2-thiomethylmethyl	2-methylbutyl
2962	2-methylbutyl	2-methylpropyl	2-methylbutyl
2963	3-methylbutyl	2-methylbutyl	2-methylbutyl
2964	cyclopropylmethyl	3-methylbutyl	2-methylbutyl
2965	cyclobutylmethyl	cyclopropylmethyl	2-methylbutyl
2966	cyclopentylmethyl	cyclobutylmethyl	2-methylbutyl
2967	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-methylbutyl
2968	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-methylbutyl
2969	p-aminophenyl-methyl	p-nitrophenylmethyl	2-methylbutyl
2970	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-methylbutyl
2971	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	propargyl
2972	1-pyrollylmethyl	benzyl	propargyl
2973	1-pyrazolylmethyl	1-pyrollylmethyl	propargyl
2974	1-imidazolylmethyl	1-pyrazolylmethyl	propargyl
2975	1-indolylmethyl	1-imidazolylmethyl	propargyl
2976	1-triazolylmethyl	1-indolylmethyl	propargyl
2977	1-tetrazolylmethyl	1-triazolylmethyl	propargyl
2978	2-pyridylmethyl	1-tetrazolylmethyl	propargyl
2979	3-pyridylmethyl	2-pyridylmethyl	propargyl
2980	4-pyridylmethyl	3-pyridylmethyl	propargyl
2981	cyclohexylmethyl	4-pyridylmethyl	propargyl
2982	2-naphthylmethyl	cyclohexylmethyl	propargyl
2983	3-naphthylmethyl	2-naphthylmethyl	propargyl
2984	2-thiophenylmethyl	3-naphthylmethyl	propargyl
2985	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	propargyl
2986	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	propargyl
2987	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	propargyl
2988	4-biphenylmethyl	2-thienylmethyl	propargyl
2989	pyrimidinylmethyl	4-biphenylmethyl	propargyl
2990	2-benzothiazolylmethyl	pyrimidinylmethyl	propargyl
2991	2-benzothiophenylmethyl	2-benzothiazolylmethyl	propargyl

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2992	2-thiomethylethyl	2-benzothiophenylmethyl	propargyl
2993	2-thiomethylmethyl	2-thiomethylethyl	propargyl
2994	2-methylpropyl	2-thiomethylmethyl	propargyl
2995	2-methylbutyl	2-methylpropyl	propargyl
2996	3-methylbutyl	2-methylbutyl	propargyl
2997	cyclopropylmethyl	3-methylbutyl	propargyl
2998	cyclobutylmethyl	cyclopropylmethyl	propargyl
2999	cyclopentylmethyl	cyclobutylmethyl	propargyl
3000	p-hydroxyphenyl-methyl	cyclopentylmethyl	propargyl
3001	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	propargyl
3002	p-aminophenyl-methyl	p-nitrophenylmethyl	propargyl
3003	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	propargyl
3004	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclobutyl
3005	1-pyrolylmethyl	benzyl	cyclobutyl
3006	1-pyrazolylmethyl	1-pyrolylmethyl	cyclobutyl
3007	1-imidazolylmethyl	1-pyrazolylmethyl	cyclobutyl
3008	1-indolylmethyl	1-imidazolylmethyl	cyclobutyl
3009	1-triazolylmethyl	1-indolylmethyl	cyclobutyl
3010	1-tetrazolylmethyl	1-triazolylmethyl	cyclobutyl
3011	2-pyridylmethyl	1-tetrazolylmethyl	cyclobutyl
3012	3-pyridylmethyl	2-pyridylmethyl	cyclobutyl
3013	4-pyridylmethyl	3-pyridylmethyl	cyclobutyl
3014	cyclohexylmethyl	4-pyridylmethyl	cyclobutyl
3015	2-naphthylmethyl	cyclohexylmethyl	cyclobutyl
3016	3-naphthylmethyl	2-naphthylmethyl	cyclobutyl
3017	2-thiophenylmethyl	3-naphthylmethyl	cyclobutyl
3018	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclobutyl
3019	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclobutyl
3020	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclobutyl
3021	4-biphenylmethyl	2-thienylmethyl	cyclobutyl
3022	pyrimidinylmethyl	4-biphenylmethyl	cyclobutyl
3023	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclobutyl
3024	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclobutyl
3025	2-thiomethylethyl	2-benzothiophenylmethyl	cyclobutyl
3026	2-thiomethylmethyl	2-thiomethylethyl	cyclobutyl
3027	2-methylpropyl	2-thiomethylmethyl	cyclobutyl
3028	2-methylbutyl	2-methylpropyl	cyclobutyl
3029	3-methylbutyl	2-methylbutyl	cyclobutyl
3030	cyclopropylmethyl	3-methylbutyl	cyclobutyl
3031	cyclobutylmethyl	cyclopropylmethyl	cyclobutyl
3032	cyclopentylmethyl	cyclobutylmethyl	cyclobutyl
3033	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclobutyl
3034	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclobutyl
3035	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclobutyl

Table 5		
3036	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl
3037	benzyl	"4-(N,N-dimethylamino)phenylmethyl"
3038	1-pyrolylmethyl	benzyl
3039	1-pyrazolylmethyl	1-pyrolylmethyl
3040	1-imidazolylmethyl	1-pyrazolylmethyl
3041	1-indolylmethyl	1-imidazolylmethyl
3042	1-triazolylmethyl	1-indolylmethyl
3043	1-tetrazolylmethyl	1-triazolylmethyl
3044	2-pyridylmethyl	1-tetrazolylmethyl
3045	3-pyridylmethyl	2-pyridylmethyl
3046	4-pyridylmethyl	3-pyridylmethyl
3047	cyclohexylmethyl	4-pyridylmethyl
3048	2-naphthylmethyl	cyclohexylmethyl
3049	3-naphthylmethyl	2-naphthylmethyl
3050	2-thiophenylmethyl	3-naphthylmethyl
3051	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl
3052	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl
3053	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"
3054	4-biphenylmethyl	2-thienylmethyl
3055	pyrimidinylmethyl	4-biphenylmethyl
3056	2-benzothiazolylmethyl	pyrimidinylmethyl
3057	2-benzothiophenylmethyl	2-benzothiazolylmethyl
3058	2-thiomethylethyl	2-benzothiophenylmethyl
3059	2-thiomethylmethyl	2-thiomethylethyl
3060	2-methylpropyl	2-thiomethylmethyl
3061	2-methylbutyl	2-methylpropyl

cyclobutyl

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Table 5

3062	3-methylbutyl	2-methylbutyl	cyclobutylmeth yl
3063	cyclopropylmethyl	3-methylbutyl	cyclobutylmeth yl
3064	cyclobutylmethyl	cyclopropylmethyl	cyclobutylmeth yl
3065	cyclopentylmethyl	cyclobutylmethyl	cyclobutylmeth yl
3066	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclobutylmeth yl
3067	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclobutylmeth yl
3068	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclobutylmeth yl
3069	"4-(N,N- dimethylamino)phenylme thyl"	p-aminophenyl-methyl	cyclobutylmeth yl
3070	benzyl	"4-(N,N- dimethylamino)phenylme thyl"	cyclopentyl
3071	1-pyrollylmethyl	benzyl	cyclopentyl
3072	1-pyrazolylmethyl	1-pyrollylmethyl	cyclopentyl
3073	1-imidazolylmethyl	1-pyrazolylmethyl	cyclopentyl
3074	1-indolylmethyl	1-imidazolylmethyl	cyclopentyl
3075	1-triazolylmethyl	1-indolylmethyl	cyclopentyl
3076	1-tetrazolylmethyl	1-triazolylmethyl	cyclopentyl
3077	2-pyridylmethyl	1-tetrazolylmethyl	cyclopentyl
3078	3-pyridylmethyl	2-pyridylmethyl	cyclopentyl
3079	4-pyridylmethyl	3-pyridylmethyl	cyclopentyl
3080	cyclohexylmethyl	4-pyridylmethyl	cyclopentyl
3081	2-naphthylmethyl	cyclohexylmethyl	cyclopentyl
3082	3-naphthylmethyl	2-naphthylmethyl	cyclopentyl
3083	2-thiophenylmethyl	3-naphthylmethyl	cyclopentyl
3084	4-(1- methyl)piperidinyl- methyl	2-thiophenylmethyl	cyclopentyl
3085	"(3,4- methylenedioxyphenyl)m ethyl"	4-(1- methyl)piperidinyl- methyl	cyclopentyl
3086	2-thienylmethyl	"(3,4- methylenedioxyphenyl)m ethyl"	cyclopentyl
3087	4-biphenylmethyl	2-thienylmethyl	cyclopentyl
3088	pyrimidinylmethyl	4-biphenylmethyl	cyclopentyl
3089	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopentyl
3090	2- benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopentyl
3091	2-thiomethylethyl	2- benzothiophenylmethyl	cyclopentyl
3092	2-thiomethylmethyl	2-thiomethylethyl	cyclopentyl
3093	2-methylpropyl	2-thiomethylmethyl	cyclopentyl
3094	2-methylbutyl	2-methylpropyl	cyclopentyl
3095	3-methylbutyl	2-methylbutyl	cyclopentyl
3096	cyclopropylmethyl	3-methylbutyl	cyclopentyl
3097	cyclobutylmethyl	cyclopropylmethyl	cyclopentyl
3098	cyclopentylmethyl	cyclobutylmethyl	cyclopentyl
3099	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclopentyl

Table 5

3100	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclopentyl
3101	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclopentyl
3102	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclopentyl
3103	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclopentylmethyl
3104	1-pyrolylmethyl	benzyl	cyclopentylmethyl
3105	1-pyrazolylmethyl	1-pyrolylmethyl	cyclopentylmethyl
3106	1-imidazolylmethyl	1-pyrazolylmethyl	cyclopentylmethyl
3107	1-indolylmethyl	1-imidazolylmethyl	cyclopentylmethyl
3108	1-triazolylmethyl	1-indolylmethyl	cyclopentylmethyl
3109	1-tetrazolylmethyl	1-triazolylmethyl	cyclopentylmethyl
3110	2-pyridylmethyl	1-tetrazolylmethyl	cyclopentylmethyl
3111	3-pyridylmethyl	2-pyridylmethyl	cyclopentylmethyl
3112	4-pyridylmethyl	3-pyridylmethyl	cyclopentylmethyl
3113	cyclohexylmethyl	4-pyridylmethyl	cyclopentylmethyl
3114	2-naphthylmethyl	cyclohexylmethyl	cyclopentylmethyl
3115	3-naphthylmethyl	2-naphthylmethyl	cyclopentylmethyl
3116	2-thiophenylmethyl	3-naphthylmethyl	cyclopentylmethyl
3117	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclopentylmethyl
3118	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclopentylmethyl
3119	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopentylmethyl
3120	4-biphenylmethyl	2-thienylmethyl	cyclopentylmethyl
3121	pyrimidinylmethyl	4-biphenylmethyl	cyclopentylmethyl
3122	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopentylmethyl
3123	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopentylmethyl
3124	2-thiomethylethyl	2-benzothiophenylmethyl	cyclopentylmethyl
3125	2-thiomethylmethyl	2-thiomethylethyl	cyclopentylmethyl
3126	2-methylpropyl	2-thiomethylmethyl	cyclopentylmethyl

Table 5

3127	2-methylbutyl	2-methylpropyl	cyclopentylmethyl
3128	3-methylbutyl	2-methylbutyl	cyclopentylmethyl
3129	cyclopropylmethyl	3-methylbutyl	cyclopentylmethyl
3130	cyclobutylmethyl	cyclopropylmethyl	cyclopentylmethyl
3131	cyclopentylmethyl	cyclobutylmethyl	cyclopentylmethyl
3132	p-hydroxyphenyl-methyl	cyclopentylmethyl	cyclopentylmethyl
3133	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclopentylmethyl
3134	p-aminophenyl-methyl	p-nitrophenylmethyl	cyclopentylmethyl
3135	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclopentylmethyl
3136	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	1-hexyl
3137	1-pyrollylmethyl	benzyl	1-hexyl
3138	1-pyrazolylmethyl	1-pyrollylmethyl	1-hexyl
3139	1-imidazolylmethyl	1-pyrazolylmethyl	1-hexyl
3140	1-indolylmethyl	1-imidazolylmethyl	1-hexyl
3141	1-triazolylmethyl	1-indolylmethyl	1-hexyl
3142	1-tetrazolylmethyl	1-triazolylmethyl	1-hexyl
3143	2-pyridylmethyl	1-tetrazolylmethyl	1-hexyl
3144	3-pyridylmethyl	2-pyridylmethyl	1-hexyl
3145	4-pyridylmethyl	3-pyridylmethyl	1-hexyl
3146	cyclohexylmethyl	4-pyridylmethyl	1-hexyl
3147	2-naphthylmethyl	cyclohexylmethyl	1-hexyl
3148	3-naphthylmethyl	2-naphthylmethyl	1-hexyl
3149	2-thiophenylmethyl	3-naphthylmethyl	1-hexyl
3150	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	1-hexyl
3151	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	1-hexyl
3152	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	1-hexyl
3153	4-biphenylmethyl	2-thienylmethyl	1-hexyl
3154	pyrimidinylmethyl	4-biphenylmethyl	1-hexyl
3155	2-benzothiazolylmethyl	pyrimidinylmethyl	1-hexyl
3156	2-benzothiophenylmethyl	2-benzothiazolylmethyl	1-hexyl
3157	2-thiomethylethyl	2-benzothiophenylmethyl	1-hexyl
3158	2-thiomethylmethyl	2-thiomethylethyl	1-hexyl
3159	2-methylpropyl	2-thiomethylmethyl	1-hexyl
3160	2-methylbutyl	2-methylpropyl	1-hexyl
3161	3-methylbutyl	2-methylbutyl	1-hexyl
3162	cyclopropylmethyl	3-methylbutyl	1-hexyl
3163	cyclobutylmethyl	cyclopropylmethyl	1-hexyl

Table 5

3164	cyclopentylmethyl	cyclobutylmethyl	1-hexyl
3165	p-hydroxyphenyl-methyl	cyclopentylmethyl	1-hexyl
3166	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	1-hexyl
3167	p-aminophenyl-methyl	p-nitrophenylmethyl	1-hexyl
3168	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	1-hexyl
3169	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	4-methylpentyl
3170	1-pyrollylmethyl	benzyl	4-methylpentyl
3171	1-pyrazolylmethyl	1-pyrollylmethyl	4-methylpentyl
3172	1-imidazolylmethyl	1-pyrazolylmethyl	4-methylpentyl
3173	1-indolylmethyl	1-imidazolylmethyl	4-methylpentyl
3174	1-triazolylmethyl	1-indolylmethyl	4-methylpentyl
3175	1-tetrazolylmethyl	1-triazolylmethyl	4-methylpentyl
3176	2-pyridylmethyl	1-tetrazolylmethyl	4-methylpentyl
3177	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
3178	4-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
3179	cyclohexylmethyl	4-pyridylmethyl	4-methylpentyl
3180	2-naphthylmethyl	cyclohexylmethyl	4-methylpentyl
3181	3-naphthylmethyl	2-naphthylmethyl	4-methylpentyl
3182	2-thiophenylmethyl	3-naphthylmethyl	4-methylpentyl
3183	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	4-methylpentyl
3184	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	4-methylpentyl
3185	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	4-methylpentyl
3186	4-biphenylmethyl	2-thienylmethyl	4-methylpentyl
3187	pyrimidinylmethyl	4-biphenylmethyl	4-methylpentyl
3188	2-benzothiazolylmethyl	pyrimidinylmethyl	4-methylpentyl
3189	2-benzothiophenylmethyl	2-benzothiazolylmethyl	4-methylpentyl
3190	2-thiomethylethyl	2-benzothiophenylmethyl	4-methylpentyl
3191	2-thiomethylmethyl	2-thiomethylethyl	4-methylpentyl
3192	2-methylpropyl	2-thiomethylmethyl	4-methylpentyl
3193	2-methylbutyl	2-methylpropyl	4-methylpentyl
3194	3-methylbutyl	2-methylbutyl	4-methylpentyl
3195	cyclopropylmethyl	3-methylbutyl	4-methylpentyl
3196	cyclobutylmethyl	cyclopropylmethyl	4-methylpentyl
3197	cyclopentylmethyl	cyclobutylmethyl	4-methylpentyl
3198	p-hydroxyphenyl-methyl	cyclopentylmethyl	4-methylpentyl
3199	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	4-methylpentyl
3200	p-aminophenyl-methyl	p-nitrophenylmethyl	4-methylpentyl
3201	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	4-methylpentyl
3202	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-methylpentyl
3203	1-pyrollylmethyl	benzyl	3-methylpentyl
3204	1-pyrazolylmethyl	1-pyrollylmethyl	3-methylpentyl

Table 5

3205	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylpentyl
3206	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl
3207	1-triazolylmethyl	1-indolylmethyl	3-methylpentyl
3208	1-tetrazolylmethyl	1-triazolylmethyl	3-methylpentyl
3209	2-pyridylmethyl	1-tetrazolylmethyl	3-methylpentyl
3210	3-pyridylmethyl	2-pyridylmethyl	3-methylpentyl
3211	4-pyridylmethyl	3-pyridylmethyl	3-methylpentyl
3212	cyclohexylmethyl	4-pyridylmethyl	3-methylpentyl
3213	2-naphthylmethyl	cyclohexylmethyl	3-methylpentyl
3214	3-naphthylmethyl	2-naphthylmethyl	3-methylpentyl
3215	2-thiophenylmethyl	3-naphthylmethyl	3-methylpentyl
3216	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-methylpentyl
3217	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methylpentyl
3218	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-methylpentyl
3219	4-biphenylmethyl	2-thienylmethyl	3-methylpentyl
3220	pyrimidinylmethyl	4-biphenylmethyl	3-methylpentyl
3221	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylpentyl
3222	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylpentyl
3223	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylpentyl
3224	2-thiomethylmethyl	2-thiomethylethyl	3-methylpentyl
3225	2-methylpropyl	2-thiomethylmethyl	3-methylpentyl
3226	2-methylbutyl	2-methylpropyl	3-methylpentyl
3227	3-methylbutyl	2-methylbutyl	3-methylpentyl
3228	cyclopropylmethyl	3-methylbutyl	3-methylpentyl
3229	cyclobutylmethyl	cyclopropylmethyl	3-methylpentyl
3230	cyclopentylmethyl	cyclobutylmethyl	3-methylpentyl
3231	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-methylpentyl
3232	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-methylpentyl
3233	p-aminophenyl-methyl	p-nitrophenylmethyl	3-methylpentyl
3234	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-methylpentyl
3235	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	isopropyl
3236	1-pyrolylmethyl	benzyl	isopropyl
3237	1-pyrazolylmethyl	1-pyrolylmethyl	isopropyl
3238	1-imidazolylmethyl	1-pyrazolylmethyl	isopropyl
3239	1-indolylmethyl	1-imidazolylmethyl	isopropyl
3240	1-triazolylmethyl	1-indolylmethyl	isopropyl
3241	1-tetrazolylmethyl	1-triazolylmethyl	isopropyl
3242	2-pyridylmethyl	1-tetrazolylmethyl	isopropyl
3243	3-pyridylmethyl	2-pyridylmethyl	isopropyl
3244	4-pyridylmethyl	3-pyridylmethyl	isopropyl
3245	cyclohexylmethyl	4-pyridylmethyl	isopropyl
3246	2-naphthylmethyl	cyclohexylmethyl	isopropyl
3247	3-naphthylmethyl	2-naphthylmethyl	isopropyl
3248	2-thiophenylmethyl	3-naphthylmethyl	isopropyl

Table 5

3249	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	isopropyl
3250	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	isopropyl
3251	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	isopropyl
3252	4-biphenylmethyl	2-thienylmethyl	isopropyl
3253	pyrimidinylmethyl	4-biphenylmethyl	isopropyl
3254	2-benzothiazolylmethyl	pyrimidinylmethyl	isopropyl
3255	2-benzothiophenylmethyl	2-benzothiazolylmethyl	isopropyl
3256	2-thiomethylethyl	2-benzothiophenylmethyl	isopropyl
3257	2-thiomethylmethyl	2-thiomethylethyl	isopropyl
3258	2-methylpropyl	2-thiomethylmethyl	isopropyl
3259	2-methylbutyl	2-methylpropyl	isopropyl
3260	3-methylbutyl	2-methylbutyl	isopropyl
3261	cyclopropylmethyl	3-methylbutyl	isopropyl
3262	cyclobutylmethyl	cyclopropylmethyl	isopropyl
3263	cyclopentylmethyl	cyclobutylmethyl	isopropyl
3264	p-hydroxyphenyl-methyl	cyclopentylmethyl	isopropyl
3265	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	isopropyl
3266	p-aminophenyl-methyl	p-nitrophenylmethyl	isopropyl
3267	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	isopropyl
3268	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl
3269	1-pyrollylmethyl	benzyl	3-methylbutyl
3270	1-pyrazolylmethyl	1-pyrollylmethyl	3-methylbutyl
3271	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
3272	1-indolylmethyl	1-imidazolylmethyl	3-methylbutyl
3273	1-triazolylmethyl	1-indolylmethyl	3-methylbutyl
3274	1-tetrazolylmethyl	1-triazolylmethyl	3-methylbutyl
3275	2-pyridylmethyl	1-tetrazolylmethyl	3-methylbutyl
3276	3-pyridylmethyl	2-pyridylmethyl	3-methylbutyl
3277	4-pyridylmethyl	3-pyridylmethyl	3-methylbutyl
3278	cyclohexylmethyl	4-pyridylmethyl	3-methylbutyl
3279	2-naphthylmethyl	cyclohexylmethyl	3-methylbutyl
3280	3-naphthylmethyl	2-naphthylmethyl	3-methylbutyl
3281	2-thiophenylmethyl	3-naphthylmethyl	3-methylbutyl
3282	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-methylbutyl
3283	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methylbutyl
3284	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl
3285	4-biphenylmethyl	2-thienylmethyl	3-methylbutyl
3286	pyrimidinylmethyl	4-biphenylmethyl	3-methylbutyl
3287	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylbutyl

Table 5

3288	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylbutyl
3289	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylbutyl
3290	2-thiomethylmethyl	2-thiomethylethyl	3-methylbutyl
3291	2-methylpropyl	2-thiomethylmethyl	3-methylbutyl
3292	2-methylbutyl	2-methylpropyl	3-methylbutyl
3293	3-methylbutyl	2-methylbutyl	3-methylbutyl
3294	cyclopropylmethyl	3-methylbutyl	3-methylbutyl
3295	cyclobutylmethyl	cyclopropylmethyl	3-methylbutyl
3296	cyclopentylmethyl	cyclobutylmethyl	3-methylbutyl
3297	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-methylbutyl
3298	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-methylbutyl
3299	p-aminophenyl-methyl	p-nitrophenylmethyl	3-methylbutyl
3300	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-methylbutyl
3301	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-phenylethyl
3302	1-pyrollylmethyl	benzyl	2-phenylethyl
3303	1-pyrazolylmethyl	1-pyrollylmethyl	2-phenylethyl
3304	1-imidazolylmethyl	1-pyrazolylmethyl	2-phenylethyl
3305	1-indolylmethyl	1-imidazolylmethyl	2-phenylethyl
3306	1-triazolylmethyl	1-indolylmethyl	2-phenylethyl
3307	1-tetrazolylmethyl	1-triazolylmethyl	2-phenylethyl
3308	2-pyridylmethyl	1-tetrazolylmethyl	2-phenylethyl
3309	3-pyridylmethyl	2-pyridylmethyl	2-phenylethyl
3310	4-pyridylmethyl	3-pyridylmethyl	2-phenylethyl
3311	cyclohexylmethyl	4-pyridylmethyl	2-phenylethyl
3312	2-naphthylmethyl	cyclohexylmethyl	2-phenylethyl
3313	3-naphthylmethyl	2-naphthylmethyl	2-phenylethyl
3314	2-thiophenylmethyl	3-naphthylmethyl	2-phenylethyl
3315	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-phenylethyl
3316	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-phenylethyl
3317	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-phenylethyl
3318	4-biphenylmethyl	2-thienylmethyl	2-phenylethyl
3319	pyrimidinylmethyl	4-biphenylmethyl	2-phenylethyl
3320	2-benzothiazolylmethyl	pyrimidinylmethyl	2-phenylethyl
3321	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-phenylethyl
3322	2-thiomethylethyl	2-benzothiophenylmethyl	2-phenylethyl
3323	2-thiomethylmethyl	2-thiomethylethyl	2-phenylethyl
3324	2-methylpropyl	2-thiomethylmethyl	2-phenylethyl
3325	2-methylbutyl	2-methylpropyl	2-phenylethyl
3326	3-methylbutyl	2-methylbutyl	2-phenylethyl
3327	cyclopropylmethyl	3-methylbutyl	2-phenylethyl
3328	cyclobutylmethyl	cyclopropylmethyl	2-phenylethyl
3329	cyclopentylmethyl	cyclobutylmethyl	2-phenylethyl
3330	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-phenylethyl

Table 5

3331	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-phenylethyl
3332	p-aminophenyl-methyl	p-nitrophenylmethyl	2-phenylethyl
3333	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-phenylethyl
3334	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-phenylpropyl
3335	1-pyrollylmethyl	benzyl	3-phenylpropyl
3336	1-pyrazolylmethyl	1-pyrollylmethyl	3-phenylpropyl
3337	1-imidazolylmethyl	1-pyrazolylmethyl	3-phenylpropyl
3338	1-indolylmethyl	1-imidazolylmethyl	3-phenylpropyl
3339	1-triazolylmethyl	1-indolylmethyl	3-phenylpropyl
3340	1-tetrazolylmethyl	1-triazolylmethyl	3-phenylpropyl
3341	2-pyridylmethyl	1-tetrazolylmethyl	3-phenylpropyl
3342	3-pyridylmethyl	2-pyridylmethyl	3-phenylpropyl
3343	4-pyridylmethyl	3-pyridylmethyl	3-phenylpropyl
3344	cyclohexylmethyl	4-pyridylmethyl	3-phenylpropyl
3345	2-naphthylmethyl	cyclohexylmethyl	3-phenylpropyl
3346	3-naphthylmethyl	2-naphthylmethyl	3-phenylpropyl
3347	2-thiophenylmethyl	3-naphthylmethyl	3-phenylpropyl
3348	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-phenylpropyl
3349	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-phenylpropyl
3350	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-phenylpropyl
3351	4-biphenylmethyl	2-thienylmethyl	3-phenylpropyl
3352	pyrimidinylmethyl	4-biphenylmethyl	3-phenylpropyl
3353	2-benzothiazolylmethyl	pyrimidinylmethyl	3-phenylpropyl
3354	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-phenylpropyl
3355	2-thiomethylethyl	2-benzothiophenylmethyl	3-phenylpropyl
3356	2-thiomethylmethyl	2-thiomethylethyl	3-phenylpropyl
3357	2-methylpropyl	2-thiomethylmethyl	3-phenylpropyl
3358	2-methylbutyl	2-methylpropyl	3-phenylpropyl
3359	3-methylbutyl	2-methylbutyl	3-phenylpropyl
3360	cyclopropylmethyl	3-methylbutyl	3-phenylpropyl
3361	cyclobutylmethyl	cyclopropylmethyl	3-phenylpropyl
3362	cyclopentylmethyl	cyclobutylmethyl	3-phenylpropyl
3363	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-phenylpropyl
3364	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-phenylpropyl
3365	p-aminophenyl-methyl	p-nitrophenylmethyl	3-phenylpropyl
3366	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-phenylpropyl
3367	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	"2-(N,N-dimethylamino)ethyl"
3368	1-pyrollylmethyl	benzyl	"2-(N,N-dimethylamino)ethyl"

Table 5

3369	1-pyrazolylmethyl	1-pyrolylmethyl	"2-(N,N-dimethylamino)ethyl"
3370	1-imidazolylmethyl	1-pyrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
3371	1-indolylmethyl	1-imidazolylmethyl	"2-(N,N-dimethylamino)ethyl"
3372	1-triazolylmethyl	1-indolylmethyl	"2-(N,N-dimethylamino)ethyl"
3373	1-tetrazolylmethyl	1-triazolylmethyl	"2-(N,N-dimethylamino)ethyl"
3374	2-pyridylmethyl	1-tetrazolylmethyl	"2-(N,N-dimethylamino)ethyl"
3375	3-pyridylmethyl	2-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
3376	4-pyridylmethyl	3-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
3377	cyclohexylmethyl	4-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"
3378	2-naphthylmethyl	cyclohexylmethyl	"2-(N,N-dimethylamino)ethyl"
3379	3-naphthylmethyl	2-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
3380	2-thiophenylmethyl	3-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"
3381	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
3382	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	"2-(N,N-dimethylamino)ethyl"
3383	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	"2-(N,N-dimethylamino)ethyl"
3384	4-biphenylmethyl	2-thienylmethyl	"2-(N,N-dimethylamino)ethyl"
3385	pyrimidinylmethyl	4-biphenylmethyl	"2-(N,N-dimethylamino)ethyl"
3386	2-benzothiazolylmethyl	pyrimidinylmethyl	"2-(N,N-dimethylamino)ethyl"
3387	2-benzothiophenylmethyl	2-benzothiazolylmethyl	"2-(N,N-dimethylamino)ethyl"

Table 5

3388	2-thiomethylethyl	2-benzothiophenylmethyl	"2-(N,N-dimethylamino)ethyl"
3389	2-thiomethylmethyl	2-thiomethylethyl	"2-(N,N-dimethylamino)ethyl"
3390	2-methylpropyl	2-thiomethylmethyl	"2-(N,N-dimethylamino)ethyl"
3391	2-methylbutyl	2-methylpropyl	"2-(N,N-dimethylamino)ethyl"
3392	3-methylbutyl	2-methylbutyl	"2-(N,N-dimethylamino)ethyl"
3393	cyclopropylmethyl	3-methylbutyl	"2-(N,N-dimethylamino)ethyl"
3394	cyclobutylmethyl	cyclopropylmethyl	"2-(N,N-dimethylamino)ethyl"
3395	cyclopentylmethyl	cyclobutylmethyl	"2-(N,N-dimethylamino)ethyl"
3396	p-hydroxyphenyl-methyl	cyclopentylmethyl	"2-(N,N-dimethylamino)ethyl"
3397	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	"2-(N,N-dimethylamino)ethyl"
3398	p-aminophenyl-methyl	p-nitrophenylmethyl	"2-(N,N-dimethylamino)ethyl"
3399	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	"2-(N,N-dimethylamino)ethyl"
3400	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-oxetanylmethyl
3401	1-pyrollylmethyl	benzyl	3-oxetanylmethyl
3402	1-pyrazolylmethyl	1-pyrollylmethyl	3-oxetanylmethyl
3403	1-imidazolylmethyl	1-pyrazolylmethyl	3-oxetanylmethyl
3404	1-indolylmethyl	1-imidazolylmethyl	3-oxetanylmethyl
3405	1-triazolylmethyl	1-indolylmethyl	3-oxetanylmethyl
3406	1-tetrazolylmethyl	1-triazolylmethyl	3-oxetanylmethyl
3407	2-pyridylmethyl	1-tetrazolylmethyl	3-oxetanylmethyl
3408	3-pyridylmethyl	2-pyridylmethyl	3-oxetanylmethyl
3409	4-pyridylmethyl	3-pyridylmethyl	3-oxetanylmethyl

Table 5

3410	cyclohexylmethyl	4-pyridylmethyl	3-oxetanylmethyl
3411	2-naphthylmethyl	cyclohexylmethyl	3-oxetanylmethyl
3412	3-naphthylmethyl	2-naphthylmethyl	3-oxetanylmethyl
3413	2-thiophenylmethyl	3-naphthylmethyl	3-oxetanylmethyl
3414	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-oxetanylmethyl
3415	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-oxetanylmethyl
3416	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-oxetanylmethyl
3417	4-biphenylmethyl	2-thienylmethyl	3-oxetanylmethyl
3418	pyrimidinylmethyl	4-biphenylmethyl	3-oxetanylmethyl
3419	2-benzothiazolylmethyl	pyrimidinylmethyl	3-oxetanylmethyl
3420	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-oxetanylmethyl
3421	2-thiomethylethyl	2-benzothiophenylmethyl	3-oxetanylmethyl
3422	2-thiomethylmethyl	2-thiomethylethyl	3-oxetanylmethyl
3423	2-methylpropyl	2-thiomethylmethyl	3-oxetanylmethyl
3424	2-methylbutyl	2-methylpropyl	3-oxetanylmethyl
3425	3-methylbutyl	2-methylbutyl	3-oxetanylmethyl
3426	cyclopropylmethyl	3-methylbutyl	3-oxetanylmethyl
3427	cyclobutylmethyl	cyclopropylmethyl	3-oxetanylmethyl
3428	cyclopentylmethyl	cyclobutylmethyl	3-oxetanylmethyl
3429	p-hydroxyphenyl-methyl	cyclopentylmethyl	3-oxetanylmethyl
3430	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	3-oxetanylmethyl
3431	p-aminophenyl-methyl	p-nitrophenylmethyl	3-oxetanylmethyl
3432	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	3-oxetanylmethyl
3433	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-tetrahydrofuran
3434	1-pyrollylmethyl	benzyl	2-tetrahydrofuran

Table 5.

3435	1-pyrazolylmethyl	1-pyrololmethyl	2-tetrahydrofuran
3436	1-imidazolylmethyl	1-pyrazolylmethyl	nyl
3437	1-indolylmethyl	1-imidazolylmethyl	2-tetrahydrofuran
3438	1-triazolylmethyl	1-indolylmethyl	nyl
3439	1-tetrazolylmethyl	1-triazolylmethyl	2-tetrahydrofuran
3440	2-pyridylmethyl	1-tetrazolylmethyl	nyl
3441	3-pyridylmethyl	2-pyridylmethyl	2-tetrahydrofuran
3442	4-pyridylmethyl	3-pyridylmethyl	nyl
3443	cyclohexylmethyl	4-pyridylmethyl	2-tetrahydrofuran
3444	2-naphthylmethyl	cyclohexylmethyl	nyl
3445	3-naphthylmethyl	2-naphthylmethyl	2-tetrahydrofuran
3446	2-thiophenylmethyl	3-naphthylmethyl	nyl
3447	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-tetrahydrofuran
3448	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	nyl
3449	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-tetrahydrofuran
3450	4-biphenylmethyl	2-thienylmethyl	nyl
3451	pyrimidinylmethyl	4-biphenylmethyl	2-tetrahydrofuran
3452	2-benzothiazolylmethyl	pyrimidinylmethyl	nyl
3453	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-tetrahydrofuran
			nyl

Table 5

3454	2-thiomethylethyl	2-benzothiophenylmethyl	2-tetrahydrofuran
3455	2-thiomethylmethyl	2-thiomethylethyl	2-tetrahydrofuran
3456	2-methylpropyl	2-thiomethylmethyl	2-tetrahydrofuran
3457	2-methylbutyl	2-methylpropyl	2-tetrahydrofuran
3458	3-methylbutyl	2-methylbutyl	2-tetrahydrofuran
3459	cyclopropylmethyl	3-methylbutyl	2-tetrahydrofuran
3460	cyclobutylmethyl	cyclopropylmethyl	2-tetrahydrofuran
3461	cyclopentylmethyl	cyclobutylmethyl	2-tetrahydrofuran
3462	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-tetrahydrofuran
3463	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-tetrahydrofuran
3464	p-aminophenyl-methyl	p-nitrophenylmethyl	2-tetrahydrofuran
3465	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-tetrahydrofuran
3466	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-methoxypropyl
3467	1-pyrollylmethyl	benzyl	2-methoxypropyl
3468	1-pyrazolylmethyl	1-pyrollylmethyl	2-methoxypropyl
3469	1-imidazolylmethyl	1-pyrazolylmethyl	2-methoxypropyl
3470	1-indolylmethyl	1-imidazolylmethyl	2-methoxypropyl
3471	1-triazolylmethyl	1-indolylmethyl	2-methoxypropyl
3472	1-tetrazolylmethyl	1-triazolylmethyl	2-methoxypropyl
3473	2-pyridylmethyl	1-tetrazolylmethyl	2-methoxypropyl
3474	3-pyridylmethyl	2-pyridylmethyl	2-methoxypropyl
3475	4-pyridylmethyl	3-pyridylmethyl	2-methoxypropyl

Table 5

3476	cyclohexylmethyl	4-pyridylmethyl	2-methoxypropyl
3477	2-naphthylmethyl	cyclohexylmethyl	2-methoxypropyl
3478	3-naphthylmethyl	2-naphthylmethyl	2-methoxypropyl
3479	2-thiophenylmethyl	3-naphthylmethyl	2-methoxypropyl
3480	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-methoxypropyl
3481	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-methoxypropyl
3482	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-methoxypropyl
3483	4-biphenylmethyl	2-thienylmethyl	2-methoxypropyl
3484	pyrimidinylmethyl	4-biphenylmethyl	2-methoxypropyl
3485	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methoxypropyl
3486	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methoxypropyl
3487	2-thiomethylethyl	2-benzothiophenylmethyl	2-methoxypropyl
3488	2-thiomethylmethyl	2-thiomethylethyl	2-methoxypropyl
3489	2-methylpropyl	2-thiomethylmethyl	2-methoxypropyl
3490	2-methylbutyl	2-methylpropyl	2-methoxypropyl
3491	3-methylbutyl	2-methylbutyl	2-methoxypropyl
3492	cyclopropylmethyl	3-methylbutyl	2-methoxypropyl
3493	cyclobutylmethyl	cyclopropylmethyl	2-methoxypropyl
3494	cyclopentylmethyl	cyclobutylmethyl	2-methoxypropyl
3495	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-methoxypropyl
3496	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-methoxypropyl
3497	p-aminophenyl-methyl	p-nitrophenylmethyl	2-methoxypropyl
3498	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-methoxypropyl
3499	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-ethoxyethyl
3500	1-pyrollylmethyl	benzyl	2-ethoxyethyl
3501	1-pyrazolylmethyl	1-pyrollylmethyl	2-ethoxyethyl
3502	1-imidazolylmethyl	1-pyrazolylmethyl	2-ethoxyethyl
3503	1-indolylmethyl	1-imidazolylmethyl	2-ethoxyethyl

Table 5

3504	1-triazolylmethyl	1-indolylmethyl	2-ethoxyethyl
3505	1-tetrazolylmethyl	1-triazolylmethyl	2-ethoxyethyl
3506	2-pyridylmethyl	1-tetrazolylmethyl	2-ethoxyethyl
3507	3-pyridylmethyl	2-pyridylmethyl	2-ethoxyethyl
3508	4-pyridylmethyl	3-pyridylmethyl	2-ethoxyethyl
3509	cyclohexylmethyl	4-pyridylmethyl	2-ethoxyethyl
3510	2-naphthylmethyl	cyclohexylmethyl	2-ethoxyethyl
3511	3-naphthylmethyl	2-naphthylmethyl	2-ethoxyethyl
3512	2-thiophenylmethyl	3-naphthylmethyl	2-ethoxyethyl
3513	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-ethoxyethyl
3514	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-ethoxyethyl
3515	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-ethoxyethyl
3516	4-biphenylmethyl	2-thienylmethyl	2-ethoxyethyl
3517	pyrimidinylmethyl	4-biphenylmethyl	2-ethoxyethyl
3518	2-benzothiazolylmethyl	pyrimidinylmethyl	2-ethoxyethyl
3519	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-ethoxyethyl
3520	2-thiomethylethyl	2-benzothiophenylmethyl	2-ethoxyethyl
3521	2-thiomethylmethyl	2-thiomethylethyl	2-ethoxyethyl
3522	2-methylpropyl	2-thiomethylmethyl	2-ethoxyethyl
3523	2-methylbutyl	2-methylpropyl	2-ethoxyethyl
3524	3-methylbutyl	2-methylbutyl	2-ethoxyethyl
3525	cyclopropylmethyl	3-methylbutyl	2-ethoxyethyl
3526	cyclobutylmethyl	cyclopropylmethyl	2-ethoxyethyl
3527	cyclopentylmethyl	cyclobutylmethyl	2-ethoxyethyl
3528	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-ethoxyethyl
3529	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-ethoxyethyl
3530	p-aminophenyl-methyl	p-nitrophenylmethyl	2-ethoxyethyl
3531	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-ethoxyethyl
3532	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-(1-pyrolyl)ethyl
3533	1-pyrollylmethyl	benzyl	2-(1-pyrolyl)ethyl
3534	1-pyrazolylmethyl	1-pyrollylmethyl	2-(1-pyrolyl)ethyl
3535	1-imidazolylmethyl	1-pyrazolylmethyl	2-(1-pyrolyl)ethyl
3536	1-indolylmethyl	1-imidazolylmethyl	2-(1-pyrolyl)ethyl
3537	1-triazolylmethyl	1-indolylmethyl	2-(1-pyrolyl)ethyl
3538	1-tetrazolylmethyl	1-triazolylmethyl	2-(1-pyrolyl)ethyl
3539	2-pyridylmethyl	1-tetrazolylmethyl	2-(1-pyrolyl)ethyl
3540	3-pyridylmethyl	2-pyridylmethyl	2-(1-pyrolyl)ethyl

Table 5

3541	4-pyridylmethyl	3-pyridylmethyl	2-(1-pyrolyl)ethyl
3542	cyclohexylmethyl	4-pyridylmethyl	2-(1-pyrolyl)ethyl
3543	2-naphthylmethyl	cyclohexylmethyl	2-(1-pyrolyl)ethyl
3544	3-naphthylmethyl	2-naphthylmethyl	2-(1-pyrolyl)ethyl
3545	2-thiophenylmethyl	3-naphthylmethyl	2-(1-pyrolyl)ethyl
3546	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-(1-pyrolyl)ethyl
3547	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-(1-pyrolyl)ethyl
3548	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-(1-pyrolyl)ethyl
3549	4-biphenylmethyl	2-thienylmethyl	2-(1-pyrolyl)ethyl
3550	pyrimidinylmethyl	4-biphenylmethyl	2-(1-pyrolyl)ethyl
3551	2-benzothiazolylmethyl	pyrimidinylmethyl	2-(1-pyrolyl)ethyl
3552	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-(1-pyrolyl)ethyl
3553	2-thiomethylethyl	2-benzothiophenylmethyl	2-(1-pyrolyl)ethyl
3554	2-thiomethylmethyl	2-thiomethylethyl	2-(1-pyrolyl)ethyl
3555	2-methylpropyl	2-thiomethylmethyl	2-(1-pyrolyl)ethyl
3556	2-methylbutyl	2-methylpropyl	2-(1-pyrolyl)ethyl
3557	3-methylbutyl	2-methylbutyl	2-(1-pyrolyl)ethyl
3558	cyclopropylmethyl	3-methylbutyl	2-(1-pyrolyl)ethyl
3559	cyclobutylmethyl	cyclopropylmethyl	2-(1-pyrolyl)ethyl
3560	cyclopentylmethyl	cyclobutylmethyl	2-(1-pyrolyl)ethyl
3561	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-(1-pyrolyl)ethyl
3562	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-(1-pyrolyl)ethyl
3563	p-aminophenyl-methyl	p-nitrophenylmethyl	2-(1-pyrolyl)ethyl
3564	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-(1-pyrolyl)ethyl
3565	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-(1-imidazolyl)ethyl

Table 5

3566	1-pyrolylmethyl	benzyl	2-(1-imidazolyl)ethyl
3567	1-pyrazolylmethyl	1-pyrolylmethyl	2-(1-imidazolyl)ethyl
3568	1-imidazolylmethyl	1-pyrazolylmethyl	2-(1-imidazolyl)ethyl
3569	1-indolylmethyl	1-imidazolylmethyl	2-(1-imidazolyl)ethyl
3570	1-triazolylmethyl	1-indolylmethyl	2-(1-imidazolyl)ethyl
3571	1-tetrazolylmethyl	1-triazolylmethyl	2-(1-imidazolyl)ethyl
3572	2-pyridylmethyl	1-tetrazolylmethyl	2-(1-imidazolyl)ethyl
3573	3-pyridylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
3574	4-pyridylmethyl	3-pyridylmethyl	2-(1-imidazolyl)ethyl
3575	cyclohexylmethyl	4-pyridylmethyl	2-(1-imidazolyl)ethyl
3576	2-naphthylmethyl	cyclohexylmethyl	2-(1-imidazolyl)ethyl
3577	3-naphthylmethyl	2-naphthylmethyl	2-(1-imidazolyl)ethyl
3578	2-thiophenylmethyl	3-naphthylmethyl	2-(1-imidazolyl)ethyl
3579	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-(1-imidazolyl)ethyl
3580	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-(1-imidazolyl)ethyl
3581	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-(1-imidazolyl)ethyl
3582	4-biphenylmethyl	2-thienylmethyl	2-(1-imidazolyl)ethyl
3583	pyrimidinylmethyl	4-biphenylmethyl	2-(1-imidazolyl)ethyl
3584	2-benzothiazolylmethyl	pyrimidinylmethyl	2-(1-imidazolyl)ethyl

Table 5

3585	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-(1-imidazolyl)ethyl
3586	2-thiomethylethyl	2-benzothiophenylmethyl	2-(1-imidazolyl)ethyl
3587	2-thiomethylmethyl	2-thiomethylethyl	2-(1-imidazolyl)ethyl
3588	2-methylpropyl	2-thiomethylmethyl	2-(1-imidazolyl)ethyl
3589	2-methylbutyl	2-methylpropyl	2-(1-imidazolyl)ethyl
3590	3-methylbutyl	2-methylbutyl	2-(1-imidazolyl)ethyl
3591	cyclopropylmethyl	3-methylbutyl	2-(1-imidazolyl)ethyl
3592	cyclobutylmethyl	cyclopropylmethyl	2-(1-imidazolyl)ethyl
3593	cyclopentylmethyl	cyclobutylmethyl	2-(1-imidazolyl)ethyl
3594	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-(1-imidazolyl)ethyl
3595	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-(1-imidazolyl)ethyl
3596	p-aminophenyl-methyl	p-nitrophenylmethyl	2-(1-imidazolyl)ethyl
3597	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-(1-imidazolyl)ethyl
3598	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-pyridylmethyl
3599	1-pyrollylmethyl	benzyl	2-pyridylmethyl
3600	1-pyrazolylmethyl	1-pyrollylmethyl	2-pyridylmethyl
3601	1-imidazolylmethyl	1-pyrazolylmethyl	2-pyridylmethyl
3602	1-indolylmethyl	1-imidazolylmethyl	2-pyridylmethyl
3603	1-triazolylmethyl	1-indolylmethyl	2-pyridylmethyl
3604	1-tetrazolylmethyl	1-triazolylmethyl	2-pyridylmethyl
3605	2-pyridylmethyl	1-tetrazolylmethyl	2-pyridylmethyl

Table 5

3606	3-pyridylmethyl	2-pyridylmethyl	2-pyridylmethyl
3607	4-pyridylmethyl	3-pyridylmethyl	2-pyridylmethyl
3608	cyclohexylmethyl	4-pyridylmethyl	2-pyridylmethyl
3609	2-naphthylmethyl	cyclohexylmethyl	2-pyridylmethyl
3610	3-naphthylmethyl	2-naphthylmethyl	2-pyridylmethyl
3611	2-thiophenylmethyl	3-naphthylmethyl	2-pyridylmethyl
3612	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-pyridylmethyl
3613	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-pyridylmethyl
3614	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-pyridylmethyl
3615	4-biphenylmethyl	2-thienylmethyl	2-pyridylmethyl
3616	pyrimidinylmethyl	4-biphenylmethyl	2-pyridylmethyl
3617	2-benzothiazolylmethyl	pyrimidinylmethyl	2-pyridylmethyl
3618	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-pyridylmethyl
3619	2-thiomethylethyl	2-benzothiophenylmethyl	2-pyridylmethyl
3620	2-thiomethylmethyl	2-thiomethylethyl	2-pyridylmethyl
3621	2-methylpropyl	2-thiomethylmethyl	2-pyridylmethyl
3622	2-methylbutyl	2-methylpropyl	2-pyridylmethyl
3623	3-methylbutyl	2-methylbutyl	2-pyridylmethyl
3624	cyclopropylmethyl	3-methylbutyl	2-pyridylmethyl
3625	cyclobutylmethyl	cyclopropylmethyl	2-pyridylmethyl
3626	cyclopentylmethyl	cyclobutylmethyl	2-pyridylmethyl
3627	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-pyridylmethyl
3628	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-pyridylmethyl
3629	p-aminophenyl-methyl	p-nitrophenylmethyl	2-pyridylmethyl
3630	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-pyridylmethyl
3631	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-thiomethylethyl

Table 5

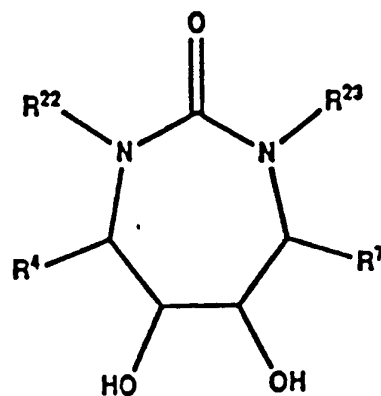
3632	1-pyrolylmethyl	benzyl	2-thiomethylethy 1
3633	1-pyrazolylmethyl	1-pyrolylmethyl	2-thiomethylethy 1
3634	1-imidazolylmethyl	1-pyrazolylmethyl	2-thiomethylethy 1
3635	1-indolylmethyl	1-imidazolylmethyl	2-thiomethylethy 1
3636	1-triazolylmethyl	1-indolylmethyl	2-thiomethylethy 1
3637	1-tetrazolylmethyl	1-triazolylmethyl	2-thiomethylethy 1
3638	2-pyridylmethyl	1-tetrazolylmethyl	2-thiomethylethy 1
3639	3-pyridylmethyl	2-pyridylmethyl	2-thiomethylethy 1
3640	4-pyridylmethyl	3-pyridylmethyl	2-thiomethylethy 1
3641	cyclohexylmethyl	4-pyridylmethyl	2-thiomethylethy 1
3642	2-naphthylmethyl	cyclohexylmethyl	2-thiomethylethy 1
3643	3-naphthylmethyl	2-naphthylmethyl	2-thiomethylethy 1
3644	2-thiophenylmethyl	3-naphthylmethyl	2-thiomethylethy 1
3645	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-thiomethylethy 1
3646	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-thiomethylethy 1
3647	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-thiomethylethy 1
3648	4-biphenylmethyl	2-thienylmethyl	2-thiomethylethy 1
3649	pyrimidinylmethyl	4-biphenylmethyl	2-thiomethylethy 1
3650	2-benzothiazolylmethyl	pyrimidinylmethyl	2-thiomethylethy 1

Table 5

3651	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-thiomethylethyl
3652	2-thiomethylethyl	2-benzothiophenylmethyl	2-thiomethylethyl
3653	2-thiomethylmethyl	2-thiomethylethyl	2-thiomethylethyl
3654	2-methylpropyl	2-thiomethylmethyl	2-thiomethylethyl
3655	2-methylbutyl	2-methylpropyl	2-thiomethylethyl
3656	3-methylbutyl	2-methylbutyl	2-thiomethylethyl
3657	cyclopropylmethyl	3-methylbutyl	2-thiomethylethyl
3658	cyclobutylmethyl	cyclopropylmethyl	2-thiomethylethyl
3659	cyclopentylmethyl	cyclobutylmethyl	2-thiomethylethyl
3660	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-thiomethylethyl
3661	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-thiomethylethyl
3662	p-aminophenyl-methyl	p-nitrophenylmethyl	2-thiomethylethyl
3663	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-thiomethylethyl
3664		"4-(N,N-dimethylamino)phenylmethyl"	

Table 6

TABLE 6


 $R^4; R^7; R^{22}; R^{23}$

<u>Example</u> <u>Number</u>	<u>R4</u>	<u>R7</u>	<u>R22</u>	<u>R23</u>
3665	benzyl	"4-(N,N-di-methyl-amino)-phenylmethyl"	allyl	2-thiomethylethyl
3666	1-pyrolylmethyl	benzyl	allyl	2-thiomethylethyl
3667	1-pyrazolymethyl	1-pyrolylmethyl	allyl	2-thiomethylethyl
3668	1-imidazolymethyl	1-pyrazolymethyl	allyl	2-thiomethylethyl
3669	1-indolymethyl	1-imidazolymethyl	allyl	2-thiomethylethyl
3670	1-triazolymethyl	1-indolymethyl	allyl	2-thiomethylethyl
3671	1-tetrazolymethyl	1-triazolymethyl	allyl	2-thiomethylethyl
3672	2-pyridylmethyl	1-tetrazolymethyl	allyl	2-thiomethylethyl
3673	3-pyridylmethyl	2-pyridylmethyl	allyl	2-thiomethylethyl
3674	4-pyridylmethyl	3-pyridylmethyl	allyl	2-thiomethylethyl
3675	cyclohexylmethyl	4-pyridylmethyl	allyl	2-thiomethylethyl

Table 6				
3697	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	allyl	2-thiomethylethyl
3698	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	propyl	allyl
3699	1-pyrololmethyl	benzyl	propyl	allyl
3700	1-pyrazolylmethyl	1-pyrololmethyl	propyl	allyl
3701	1-imidazolylmethyl	1-pyrazolylmethyl	propyl	allyl
3702	1-indolylmethyl	1-imidazolylmethyl	propyl	allyl
3703	1-triazolylmethyl	1-indolylmethyl	propyl	allyl
3704	1-tetrazolylmethyl	1-triazolylmethyl	propyl	allyl
3705	2-pyridylmethyl	1-tetrazolylmethyl	propyl	allyl
3706	3-pyridylmethyl	2-pyridylmethyl	propyl	allyl
3707	4-pyridylmethyl	3-pyridylmethyl	propyl	allyl
3708	cyclohexylmethyl	4-pyridylmethyl	propyl	allyl
3709	2-naphthylmethyl	cyclohexylmethyl	propyl	allyl
3710	3-naphthylmethyl	2-naphthylmethyl	propyl	allyl
3711	2-thiophenylmethyl	3-naphthylmethyl	propyl	allyl
3712	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	propyl	allyl
3713	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	propyl	allyl
3714	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	propyl	allyl
3715	4-biphenylmethyl	2-thienylmethyl	propyl	allyl
3716	pyrimidinylmethyl	4-biphenylmethyl	propyl	allyl
3717	2-benzothiazolylmethyl	pyrimidinylmethyl	propyl	allyl
3718	2-benzothiophenylmethyl	2-benzothiazolylmethyl	propyl	allyl

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3719	2-thiomethylethyl	2-benzothiophenylmethyl	propyl	allyl
3720	2-thiomethylmethyl	2-thiomethylethyl	propyl	allyl
3721	2-methylpropyl	2-thiomethylmethyl	propyl	allyl
3722	2-methylbutyl	2-methylpropyl	propyl	allyl
3723	3-methylbutyl	2-methylbutyl	propyl	allyl
3724	cyclopropylmethyl	3-methylbutyl	propyl	allyl
3725	cyclobutylmethyl	cyclopropylmethyl	propyl	allyl
3726	cyclopentylmethyl	cyclobutylmethyl	propyl	allyl
3727	p-hydroxyphenylmethyl	cyclopentylmethyl	propyl	allyl
3728	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	allyl
3729	p-aminophenylmethyl	p-nitrophenylmethyl	propyl	allyl
3730	"4-(N,N-dimethylamino)phenylmethyl" benzyl	p-aminophenylmethyl	propyl	allyl
3731		"4-(N,N-dimethylamino)phenylmethyl" benzyl	n-butyl	propyl
3732	1-pyrolylmethyl		n-butyl	propyl
3733	1-pyrazolylmethyl	1-pyrolylmethyl	n-butyl	propyl
3734	1-imidazolylmethyl	1-pyrazolylmethyl	n-butyl	propyl
3735	1-indolylmethyl	1-imidazolylmethyl	n-butyl	propyl
3736	1-triazolylmethyl	1-indolylmethyl	n-butyl	propyl
3737	1-tetrazolylmethyl	1-triazolylmethyl	n-butyl	propyl
3738	2-pyridylmethyl	1-tetrazolylmethyl	n-butyl	propyl
3739	3-pyridylmethyl	2-pyridylmethyl	n-butyl	propyl
3740	4-pyridylmethyl	3-pyridylmethyl	n-butyl	propyl
3741	cyclohexylmethyl	4-pyridylmethyl	n-butyl	propyl
3742	2-naphthylmethyl	cyclohexylmethyl	n-butyl	propyl

Table 6

3743	3-naphthylmethyl	2-naphthylmethyl	n-butyl	propyl
3744	2-thiophenylmethyl	3-naphthylmethyl	n-butyl	propyl
3745	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	n-butyl	propyl
3746	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	n-butyl	propyl
3747	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	n-butyl	propyl
3748	4-biphenylmethyl	2-thienylmethyl	n-butyl	propyl
3749	pyrimidinylmethyl	4-biphenylmethyl	n-butyl	propyl
3750	2-benzothiazolylmethyl	pyrimidinylmethyl	n-butyl	propyl
3751	2-benzothiophenylmethyl	2-benzothiazolylmethyl	n-butyl	propyl
3752	2-thiomethylethyl	2-benzothiophenylmethyl	n-butyl	propyl
3753	2-thiomethylmethyl	2-thiomethylethyl	n-butyl	propyl
3754	2-methylpropyl	2-thiomethylmethyl	n-butyl	propyl
3755	2-methylbutyl	2-methylpropyl	n-butyl	propyl
3756	3-methylbutyl	2-methylbutyl	n-butyl	propyl
3757	cyclopropylmethyl	3-methylbutyl	n-butyl	propyl
3758	cyclobutylmethyl	cyclopropylmethyl	n-butyl	propyl
3759	cyclopentylmethyl	cyclobutylmethyl	n-butyl	propyl
3760	p-hydroxyphenylmethyl	cyclopentylmethyl	n-butyl	propyl
3761	p-nitrophenylmethyl	p-hydroxyphenylmethyl	n-butyl	propyl
3762	p-aminophenylmethyl	p-nitrophenylmethyl	n-butyl	propyl
3763	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	n-butyl	propyl
3764	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	isobutyl	n-butyl
3765	1-pyrollylmethyl	benzyl	isobutyl	n-butyl

Table 6

3766	1-pyrazolylmethy l	1-pyrazolylmethyl	isobutyl	n-butyl
3767	1-imidazolylmeth yl	1-pyrazolylmethyl	isobutyl	n-butyl
3768	1-indolylmethyl	1-imidazolylmethyl	isobutyl	n-butyl
3769	1-triazolylmethy l	1-indolylmethyl	isobutyl	n-butyl
3770	1-tetrazolylmeth yl	1-triazolylmethyl	isobutyl	n-butyl
3771	2-pyridylmethyl	1-tetrazolylmethyl	isobutyl	n-butyl
3772	3-pyridylmethyl	2-pyridylmethyl	isobutyl	n-butyl
3773	4-pyridylmethyl	3-pyridylmethyl	isobutyl	n-butyl
3774	cyclohexylmeth yl	4-pyridylmethyl	isobutyl	n-butyl
3775	2-naphthylmethyl	cyclohexylmethyl	isobutyl	n-butyl
3776	3-naphthylmethyl	2-naphthylmethyl	isobutyl	n-butyl
3777	2-thiophenylmeth yl	3-naphthylmethyl	isobutyl	n-butyl
3778	4-(1-methyl)piperid inyl-methyl	2-thiophenylmethyl	isobutyl	n-butyl
3779	"(3,4-methylenedioxy phenyl)methyl"	4-(1-methyl)piperidin yl-methyl	isobutyl	n-butyl
3780	2-thienylmethyl	"(3,4-methylenedioxyph enyl)methyl"	isobutyl	n-butyl
3781	4-biphenylmethyl	2-thienylmethyl	isobutyl	n-butyl
3782	pyrimidinylmet hyl	4-biphenylmethyl	isobutyl	n-butyl
3783	2-benzothiazolyl methyl	pyrimidinylmethy l	isobutyl	n-butyl
3784	2-benzothiopheny lmethyl	2-benzothiazolylme thyl	isobutyl	n-butyl
3785	2-thiomethylethy l	2-benzothiophenylm ethyl	isobutyl	n-butyl
3786	2-thiomethylmeth yl	2-thiomethylethyl	isobutyl	n-butyl
3787	2-methylpropyl	2-thiomethylmethyl	isobutyl	n-butyl
3788	2-methylbutyl	2-methylpropyl	isobutyl	n-butyl

Table 6

3789	3-methylbutyl	2-methylbutyl	isobutyl	n-butyl
3790	cyclopropylmeth yl	3-methylbutyl	isobutyl	n-butyl
3791	cyclobutylmeth yl	cyclopropylmethy l	isobutyl	n-butyl
3792	cyclopentylmet hyl	cyclobutylmethyl	isobutyl	n-butyl
3793	p- hydroxyphenyl- methyl	cyclopentylmethy l	isobutyl	n-butyl
3794	p- nitrophenylmet hyl	p-hydroxyphenyl- methyl	isobutyl	n-butyl
3795	p-aminophenyl- methyl	p- nitrophenylmethy l	isobutyl	n-butyl
3796	"4-(N,N- dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	isobutyl	n-butyl
3797		"4-(N,N- dimethylamino)ph enylmethyl" benzyl	2-butyl	isobutyl
3798	1- pyrolylmethyl		2-butyl	isobutyl
3799	1- pyrazolylmethy l	1-pyrolylmethyl	2-butyl	isobutyl
3800	1- imidazolylmeth yl	1- pyrazolylmethyl	2-butyl	isobutyl
3801	1- indolylmethyl	1- imidazolylmethyl	2-butyl	isobutyl
3802	1- triazolylmethy l	1-indolylmethyl	2-butyl	isobutyl
3803	1- tetrazolylmeth yl	1- triazolylmethyl	2-butyl	isobutyl
3804	2- pyridylmethyl	1- tetrazolylmethyl	2-butyl	isobutyl
3805	3- pyridylmethyl	2-pyridylmethyl	2-butyl	isobutyl
3806	4- pyridylmethyl	3-pyridylmethyl	2-butyl	isobutyl
3807	cyclohexylmeth yl	4-pyridylmethyl	2-butyl	isobutyl
3808	2- naphthylmethyl	cyclohexylmethyl	2-butyl	isobutyl
3809	3- naphthylmethyl	2-naphthylmethyl	2-butyl	isobutyl
3810	2- thiophenylmeth yl	3-naphthylmethyl	2-butyl	isobutyl
3811	4-(1- methyl)piperid inyl-methyl	2- thiophenylmethyl	2-butyl	isobutyl

Table 6

3835	1-triazolylmethyl	1-indolylmethyl	"3,3-dimethallyl"	2-butyl
3836	1-tetrazolylmethyl	1-triazolylmethyl	"3,3-dimethallyl"	2-butyl
3837	2-pyridylmethyl	1-tetrazolylmethyl	"3,3-dimethallyl"	2-butyl
3838	3-pyridylmethyl	2-pyridylmethyl	"3,3-dimethallyl"	2-butyl
3839	4-pyridylmethyl	3-pyridylmethyl	"3,3-dimethallyl"	2-butyl
3840	cyclohexylmethyl	4-pyridylmethyl	"3,3-dimethallyl"	2-butyl
3841	2-naphthylmethyl	cyclohexylmethyl	"3,3-dimethallyl"	2-butyl
3842	3-naphthylmethyl	2-naphthylmethyl	"3,3-dimethallyl"	2-butyl
3843	2-thiophenylmethyl	3-naphthylmethyl	"3,3-dimethallyl"	2-butyl
3844	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	"3,3-dimethallyl"	2-butyl
3845	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	"3,3-dimethallyl"	2-butyl
3846	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	"3,3-dimethallyl"	2-butyl
3847	4-biphenylmethyl	2-thienylmethyl	"3,3-dimethallyl"	2-butyl
3848	pyrimidinylmethyl	4-biphenylmethyl	"3,3-dimethallyl"	2-butyl
3849	2-benzothiazolylmethyl	pyrimidinylmethyl	"3,3-dimethallyl"	2-butyl
3850	2-benzothiophenylmethyl	2-benzothiazolylmethyl	"3,3-dimethallyl"	2-butyl
3851	2-thiomethylethyl	2-benzothiophenylmethyl	"3,3-dimethallyl"	2-butyl
3852	2-thiomethylmethyl	2-thiomethylethyl	"3,3-dimethallyl"	2-butyl
3853	2-methylpropyl	2-thiomethylmethyl	"3,3-dimethallyl"	2-butyl
3854	2-methylbutyl	2-methylpropyl	"3,3-dimethallyl"	2-butyl
3855	3-methylbutyl	2-methylbutyl	"3,3-dimethallyl"	2-butyl
3856	cyclopropylmethyl	3-methylbutyl	"3,3-dimethallyl"	2-butyl
3857	cyclobutylmethyl	cyclopropylmethyl	"3,3-dimethallyl"	2-butyl

Table 6

3880	4-biphenylmethyl	2-thienylmethyl	3-methallyl	"3,3-dimethallyl"
3881	pyrimidinylmethyl	4-biphenylmethyl	3-methallyl	"3,3-dimethallyl"
3882	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methallyl	"3,3-dimethallyl"
3883	2-benzothio-phenylmethyl	2-benzothiazolylmethyl	3-methallyl	"3,3-dimethallyl"
3884	2-thiomethyl-ethyl	2-benzothiophenylmethyl	3-methallyl	"3,3-dimethallyl"
3885	2-thiomethyl-methyl	2-thiomethylethyl	3-methallyl	"3,3-dimethallyl"
3886	2-methylpropyl	2-thiomethylmethyl	3-methallyl	"3,3-dimethallyl"
3887	2-methylbutyl	2-methylpropyl	3-methallyl	"3,3-dimethallyl"
3888	3-methylbutyl	2-methylbutyl	3-methallyl	"3,3-dimethallyl"
3889	cyclopropylmethyl	3-methylbutyl	3-methallyl	"3,3-dimethallyl"
3890	cyclobutylmethyl	cyclopropylmethyl	3-methallyl	"3,3-dimethallyl"
3891	cyclopentylmethyl	cyclobutylmethyl	3-methallyl	"3,3-dimethallyl"
3892	p-hydroxyphenylmethyl	cyclopentylmethyl	3-methallyl	"3,3-dimethallyl"
3893	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-methallyl	"3,3-dimethallyl"
3894	p-aminophenylmethyl	p-nitrophenylmethyl	3-methallyl	"3,3-dimethallyl"
3895	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	3-methallyl	"3,3-dimethallyl"
3896	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-methallyl	3-methallyl
3897	1-pyrollylmethyl	benzyl	2-methallyl	3-methallyl
3898	1-pyrazolylmethyl	1-pyrollylmethyl	2-methallyl	3-methallyl
3899	1-imidazolylmethyl	1-pyrazolylmethyl	2-methallyl	3-methallyl
3900	1-indolylmethyl	1-imidazolylmethyl	2-methallyl	3-methallyl
3901	1-triazolylmethyl	1-indolylmethyl	2-methallyl	3-methallyl
3902	1-tetrazolylmethyl	1-triazolylmethyl	2-methallyl	3-methallyl
3903	2-pyridylmethyl	1-tetrazolylmethyl	2-methallyl	3-methallyl

Table 6

3904	3-pyridylmethyl	2-pyridylmethyl	2-methallyl	3-methallyl
3905	4-pyridylmethyl	3-pyridylmethyl	2-methallyl	3-methallyl
3906	cyclohexylmethyl	4-pyridylmethyl	2-methallyl	3-methallyl
3907	2-naphthylmethyl	cyclohexylmethyl	2-methallyl	3-methallyl
3908	3-naphthylmethyl	2-naphthylmethyl	2-methallyl	3-methallyl
3909	2-thiophenylmethyl	3-naphthylmethyl	2-methallyl	3-methallyl
3910	4-(1-methyl)-piperidinylmethyl	2-thiophenylmethyl	2-methallyl	3-methallyl
3911	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinylmethyl	2-methallyl	3-methallyl
3912	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-methallyl	3-methallyl
3913	4-biphenylmethyl	2-thienylmethyl	2-methallyl	3-methallyl
3914	pyrimidinylmethyl	4-biphenylmethyl	2-methallyl	3-methallyl
3915	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methallyl	3-methallyl
3916	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methallyl	3-methallyl
3917	2-thiomethylethyl	2-benzothiophenylmethyl	2-methallyl	3-methallyl
3918	2-thiomethylmethyl	2-thiomethylethyl	2-methallyl	3-methallyl
3919	2-methylpropyl	2-thiomethylmethyl	2-methallyl	3-methallyl
3920	2-methylbutyl	2-methylpropyl	2-methallyl	3-methallyl
3921	3-methylbutyl	2-methylbutyl	2-methallyl	3-methallyl
3922	cyclopropylmethyl	3-methylbutyl	2-methallyl	3-methallyl
3923	cyclobutylmethyl	cyclopropylmethyl	2-methallyl	3-methallyl
3924	cyclopentylmethyl	cyclobutylmethyl	2-methallyl	3-methallyl
3925	p-hydroxyphenylmethyl	cyclopentylmethyl	2-methallyl	3-methallyl
3926	p-nitrophenylmethyl	p-hydroxyphenylmethyl	2-methallyl	3-methallyl
3927	p-aminophenylmethyl	p-nitrophenylmethyl	2-methallyl	3-methallyl
3928	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	2-methallyl	3-methallyl

Table 6				
3929	benzyl	"4-(N,N-dimethylamino)-phenylmethyl"	2-propyl	2-methallyl
3930	1-pyrollylmethyl	benzyl	2-propyl	2-methallyl
3931	1-pyrazolylmethyl	1-pyrollylmethyl	2-propyl	2-methallyl
3932	1-imidazolylmethyl	1-pyrazolylmethyl	2-propyl	2-methallyl
3933	1-indolylmethyl	1-imidazolylmethyl	2-propyl	2-methallyl
3934	1-triazolylmethyl	1-indolylmethyl	2-propyl	2-methallyl
3935	1-tetrazolylmethyl	1-triazolylmethyl	2-propyl	2-methallyl
3936	2-pyridylmethyl	1-tetrazolylmethyl	2-propyl	2-methallyl
3937	3-pyridylmethyl	2-pyridylmethyl	2-propyl	2-methallyl
3938	4-pyridylmethyl	3-pyridylmethyl	2-propyl	2-methallyl
3939	cyclohexylmethyl	4-pyridylmethyl	2-propyl	2-methallyl
3940	2-naphthylmethyl	cyclohexylmethyl	2-propyl	2-methallyl
3941	3-naphthylmethyl	2-naphthylmethyl	2-propyl	2-methallyl
3942	2-thiophenylmethyl	3-naphthylmethyl	2-propyl	2-methallyl
3943	4-(1-methyl)-piperidinylmethyl	2-thiophenylmethyl	2-propyl	2-methallyl
3944	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)-piperidinylmethyl	2-propyl	2-methallyl
3945	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-propyl	2-methallyl
3946	4-biphenylmethyl	2-thienylmethyl	2-propyl	2-methallyl
3947	pyrimidinylmethyl	4-biphenylmethyl	2-propyl	2-methallyl
3948	2-benzothiazolylmethyl	pyrimidinylmethyl	2-propyl	2-methallyl
3949	2-benzothio-phenylmethyl	2-benzothiazolylmethyl	2-propyl	2-methallyl
3950	2-thio-methylethyl	2-benzothiophenylmethyl	2-propyl	2-methallyl
3951	2-thio-methylmethyl	2-thiomethylethyl	2-propyl	2-methallyl
3952	2-methylpropyl	2-thiomethylmethyl	2-propyl	2-methallyl

Table 6

3953	2-methylbutyl	2-methylpropyl	2-propyl	2-methallyl
3954	3-methylbutyl	2-methylbutyl	2-propyl	2-methallyl
3955	cyclopropylmet hyl	3-methylbutyl	2-propyl	2-methallyl
3956	cyclobutylmeth yl	cyclopropylmethy l	2-propyl	2-methallyl
3957	cyclopentylmet hyl	cyclobutylmethy l	2-propyl	2-methallyl
3958	p- hydroxyphenyl- methyl	cyclopentylmethy l	2-propyl	2-methallyl
3959	p- nitrophenylmet hyl	p-hydroxyphenyl- methyl	2-propyl	2-methallyl
3960	p-aminophenyl- methyl	p-nitrophenyl- methyl	2-propyl	2-methallyl
3961	"4-(N,N- dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	2-propyl	2-methallyl
3962		"4-(N,N- dimethylamino)- phenylmethyl" benzyl	cyclopropyl	2-propyl
3963	1- pyrolylmethyl		cyclopropyl	2-propyl
3964	1-pyrazolyl- methyl	1-pyrolylmethyl	cyclopropyl	2-propyl
3965	1-imidazolyl- methyl	1- pyrazolylmethyl	cyclopropyl	2-propyl
3966	1- indolylmethyl	1- imidazolylmethyl	cyclopropyl	2-propyl
3967	1-triazolyl- methyl	1-indolylmethyl	cyclopropyl	2-propyl
3968	1-tetrazolyl- methyl	1- triazolylmethyl	cyclopropyl	2-propyl
3969	2- pyridylmethyl	1- tetrazolylmethyl	cyclopropyl	2-propyl
3970	3- pyridylmethyl	2-pyridylmethyl	cyclopropyl	2-propyl
3971	4- pyridylmethyl	3-pyridylmethyl	cyclopropyl	2-propyl
3972	cyclohexyl- methyl	4-pyridylmethyl	cyclopropyl	2-propyl
3973	2- naphthylmethyl	cyclohexylmethyl	cyclopropyl	2-propyl
3974	3- naphthylmethyl	2-naphthylmethyl	cyclopropyl	2-propyl
3975	2- thiophenylmeth yl	3-naphthylmethyl	cyclopropyl	2-propyl
3976	4-(1- methyl)piperid inyl-methyl	2- thiophenylmethyl	cyclopropyl	2-propyl
3977	"(3,4- methylenedioxy phenyl)methyl"	4-(1-methyl)- piperidinyl- methyl	cyclopropyl	2-propyl

Table 6				
3978	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropyl	2-propyl
3979	4-biphenylmethyl	2-thienylmethyl	cyclopropyl	2-propyl
3980	pyrimidinyl-methyl	4-biphenylmethyl	cyclopropyl	2-propyl
3981	2-benzothiazolylmethyl	pyrimidinyl-methyl	cyclopropyl	2-propyl
3982	2-benzothio-phenylmethyl	2-benzothiazolyl-methyl	cyclopropyl	2-propyl
3983	2-thio-methylethyl	2-benzothiophenylmethyl	cyclopropyl	2-propyl
3984	2-thio-methylmethyl	2-thiomethylethyl	cyclopropyl	2-propyl
3985	2-methylpropyl	2-thiomethylmethyl	cyclopropyl	2-propyl
3986	2-methylbutyl	2-methylpropyl	cyclopropyl	2-propyl
3987	3-methylbutyl	2-methylbutyl	cyclopropyl	2-propyl
3988	cyclopropylmethyl	3-methylbutyl	cyclopropyl	2-propyl
3989	cyclobutylmethyl	cyclopropyl-methyl	cyclopropyl	2-propyl
3990	cyclopentylmethyl	cyclobutylmethyl	cyclopropyl	2-propyl
3991	p-hydroxyphenyl-methyl	cyclopentylmethy- l	cyclopropyl	2-propyl
3992	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	cyclopropyl	2-propyl
3993	p-aminophenyl-methyl	p-nitrophenylmethy- l	cyclopropyl	2-propyl
3994	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclopropyl	2-propyl
3995	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclopropyl-methyl	cyclopropyl
3996	1-pyrollylmethyl	benzyl	cyclopropyl-methyl	cyclopropyl
3997	1-pyrazolyl-methyl	1-pyrollylmethyl	cyclopropyl-methyl	cyclopropyl
3998	1-imidazolyl-methyl	1-pyrazolylmethyl	cyclopropyl-methyl	cyclopropyl
3999	1-indolylmethyl	1-imidazolylmethyl	cyclopropyl-methyl	cyclopropyl
4000	1-triazolyl-methyl	1-indolylmethyl	cyclopropyl-methyl	cyclopropyl
4001	1-tetrazolyl-methyl	1-triazolylmethyl	cyclopropyl-methyl	cyclopropyl
4002	2-pyridylmethyl	1-tetrazolylmethyl	cyclopropyl-methyl	cyclopropyl

Table 6

4003	3-pyridylmethyl	2-pyridylmethyl	cyclopropyl-methyl-	cyclopropyl
4004	4-pyridylmethyl	3-pyridylmethyl	cyclopropylmethyl	cyclopropyl
4005	cyclohexyl-methyl	4-pyridylmethyl	cyclopropyl-methyl	cyclopropyl
4006	2-naphthylmethyl	cyclohexylmethyl	cyclopropyl-methyl	cyclopropyl
4007	3-naphthylmethyl	2-naphthylmethyl	cyclopropylmethyl	cyclopropyl
4008	2-thiophenyl-methyl	3-naphthylmethyl	cyclopropyl-methyl	cyclopropyl
4009	4-(1-methyl)-piperidiny-methyl	2-thiophenyl-methyl	cyclopropyl-methyl	cyclopropyl
4010	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)-piperidiny-methyl	cyclopropyl-methyl	cyclopropyl
4011	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropyl-methyl	cyclopropyl
4012	4-biphenylmethyl	2-thienylmethyl	cyclopropyl-methyl	cyclopropyl
4013	pyrimidinyl-methyl	4-biphenylmethyl	cyclopropyl-methyl	cyclopropyl
4014	2-benzothiazolyl-methyl	pyrimidinylmethyl	cyclopropyl-methyl	cyclopropyl
4015	2-benzothio-phenylmethyl	2-benzo-thiazolyl-methyl	cyclopropyl-methyl	cyclopropyl
4016	2-thiomethyl-ethyl	2-benzo-thiophenylmethyl	cyclopropyl-methyl	cyclopropyl
4017	2-thiomethylmethyl	2-thiomethylethyl	cyclopropyl-methyl	cyclopropyl
4018	2-methylpropyl	2-thiomethylmethyl	cyclopropyl-methyl	cyclopropyl
4019	2-methylbutyl	2-methylpropyl	cyclopropyl-methyl	cyclopropyl
4020	3-methylbutyl	2-methylbutyl	cyclopropyl-methyl	cyclopropyl
4021	cyclopropyl-methyl	3-methylbutyl	cyclopropyl-methyl	cyclopropyl
4022	cyclobutyl-methyl	cyclopropyl-methyl	cyclopropyl-methyl	cyclopropyl
4023	cyclopentyl-methyl	cyclobutyl-methyl	cyclopropyl-methyl	cyclopropyl
4024	p-hydroxyphenyl-methyl	cyclopentyl-methyl	cyclopropyl-methyl	cyclopropyl
4025	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	cyclopropylmethyl	cyclopropyl
4026	p-aminophenyl-methyl	p-nitrophenyl-methyl	cyclopropyl-methyl	cyclopropyl
4027	"4-(N,N-dimethyl-amino)-phenyl-methyl"	p-aminophenyl-methyl	cyclopropyl-methyl	cyclopropyl

Table 6

4028	benzyl	"4-(N,N-dimethylamino)-phenylmethyl"	n-pentyl	cyclopropylmeth yl
4029	1-pyrolylmethyl	benzyl	n-pentyl	cyclopropylmeth yl
4030	1-pyrazolylmethy l	1-pyrolylmethyl	n-pentyl	cyclopropylmeth yl
4031	1-imidazolylmeth yl	1-pyrazolylmethyl	n-pentyl	cyclopropylmeth yl
4032	1-indolylmethyl	1-imidazolylmethyl	n-pentyl	cyclopropylmeth yl
4033	1-triazolylmethy l	1-indolylmethyl	n-pentyl	cyclopropylmeth yl
4034	1-tetrazolylmeth yl	1-triazolylmethyl	n-pentyl	cyclopropylmeth yl
4035	2-pyridylmethyl	1-tetrazolylmethyl	n-pentyl	cyclopropylmeth yl
4036	3-pyridylmethyl	2-pyridylmethyl	n-pentyl	cyclopropylmeth yl
4037	4-pyridylmethyl	3-pyridylmethyl	n-pentyl	cyclopropylmeth yl
4038	cyclohexylmeth yl	4-pyridylmethyl	n-pentyl	cyclopropylmeth yl
4039	2-naphthylmethyl	cyclohexylmethyl	n-pentyl	cyclopropylmeth yl
4040	3-naphthylmethyl	2-naphthylmethyl	n-pentyl	cyclopropylmeth yl
4041	2-thiophenylmeth yl	3-naphthylmethyl	n-pentyl	cyclopropylmeth yl
4042	4-(1-methyl)piperid inyl-methyl	2-thiophenylmethyl	n-pentyl	cyclopropylmeth yl
4043	"(3,4-methylenedioxy phenyl)methyl"	4-(1-methyl)piperidin yl-methyl	n-pentyl	cyclopropylmeth yl
4044	2-thienylmethyl	"(3,4-methylenedioxyph enyl)methyl"	n-pentyl	cyclopropylmeth yl
4045	4-biphenylmethyl	2-thienylmethyl	n-pentyl	cyclopropylmeth yl
4046	pyrimidinylmet hyl	4-biphenylmethyl	n-pentyl	cyclopropylmeth yl
4047	2-benzothiazolyl methyl	pyrimidinylmethy l	n-pentyl	cyclopropylmeth yl
4048	2-benzothiopheny lmethyl	2-benzothiazolylme thyl	n-pentyl	cyclopropylmeth yl
4049	2-thiomethylethy l	2-benzothiophenylm ethyl	n-pentyl	cyclopropylmeth yl

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4050	2-thiomethylmeth yl	2-thiomethylethyl	n-pentyl	cyclopropylmeth yl
4051	2-methylpropyl	2-thiomethylmethyl	n-pentyl	cyclopropylmeth yl
4052	2-methylbutyl	2-methylpropyl	n-pentyl	cyclopropylmeth yl
4053	3-methylbutyl	2-methylbutyl	n-pentyl	cyclopropylmeth yl
4054	cyclopropylmet hyl	3-methylbutyl	n-pentyl	cyclopropylmeth yl
4055	cyclobutylmeth yl	cyclopropylmethy l	n-pentyl	cyclopropylmeth yl
4056	cyclopentylmet hyl	cyclobutylmethyl	n-pentyl	cyclopropylmeth yl
4057	p-hydroxyphenyl- methyl	cyclopentylmethy l	n-pentyl	cyclopropylmeth yl
4058	p-nitrophenylmet hyl	p-hydroxyphenyl- methyl	n-pentyl	cyclopropylmeth yl
4059	p-aminophenyl- methyl	p-nitrophenylmethy l	n-pentyl	cyclopropylmeth yl
4060	"4-(N,N- dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	n-pentyl	cyclopropylmeth yl
4061		"4-(N,N- dimethylamino)ph enylmethyl" benzyl	2-pentyl	n-pentyl
4062	1-pyrollylmethyl		2-pentyl	n-pentyl
4063	1-pyrazolylmethy l	1-pyrollylmethyl	2-pentyl	n-pentyl
4064	1-imidazolylmeth yl	1-pyrazolylmethyl	2-pentyl	n-pentyl
4065	1-indolylmethyl	1-imidazolylmethyl	2-pentyl	n-pentyl
4066	1-triazolylmethy l	1-indolylmethyl	2-pentyl	n-pentyl
4067	1-tetrazolylmeth yl	1-triazolylmethyl	2-pentyl	n-pentyl
4068	2-pyridylmethyl	1-tetrazolylmethyl	2-pentyl	n-pentyl
4069	3-pyridylmethyl	2-pyridylmethyl	2-pentyl	n-pentyl
4070	4-pyridylmethyl	3-pyridylmethyl	2-pentyl	n-pentyl
4071	cyclohexylmeth yl	4-pyridylmethyl	2-pentyl	n-pentyl
4072	2-naphthylmethyl	cyclohexylmethyl	2-pentyl	n-pentyl

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4073	3-naphthylmethyl	2-naphthylmethyl	2-pentyl	n-pentyl
4074	2-thiophenylmethyl	3-naphthylmethyl	2-pentyl	n-pentyl
4075	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-pentyl	n-pentyl
4076	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-pentyl	n-pentyl
4077	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-pentyl	n-pentyl
4078	4-biphenylmethyl	2-thienylmethyl	2-pentyl	n-pentyl
4079	pyrimidinylmethyl	4-biphenylmethyl	2-pentyl	n-pentyl
4080	2-benzothiazolylmethyl	pyrimidinylmethyl	2-pentyl	n-pentyl
4081	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-pentyl	n-pentyl
4082	2-thiomethylethyl	2-benzothiophenylmethyl	2-pentyl	n-pentyl
4083	2-thiomethylmethyl	2-thiomethylethyl	2-pentyl	n-pentyl
4084	2-methylpropyl	2-thiomethylmethyl	2-pentyl	n-pentyl
4085	2-methylbutyl	2-methylpropyl	2-pentyl	n-pentyl
4086	3-methylbutyl	2-methylbutyl	2-pentyl	n-pentyl
4087	cyclopropylmethyl	3-methylbutyl	2-pentyl	n-pentyl
4088	cyclobutylmethyl	cyclopropylmethyl	2-pentyl	n-pentyl
4089	cyclopentylmethyl	cyclobutylmethyl	2-pentyl	n-pentyl
4090	p-hydroxyphenylmethyl	cyclopentylmethyl	2-pentyl	n-pentyl
4091	p-nitrophenylmethyl	p-hydroxyphenylmethyl	2-pentyl	n-pentyl
4092	p-aminophenylmethyl	p-nitrophenylmethyl	2-pentyl	n-pentyl
4093	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	2-pentyl	n-pentyl
4094	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-pentyl	2-pentyl
4095	1-pyrollylmethyl	benzyl	3-pentyl	2-pentyl

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4096	1-pyrazolylmethyl	1-pyrololmethyl	3-pentyl	2-pentyl
4097	1-imidazolylmethyl	1-pyrazolylmethyl	3-pentyl	2-pentyl
4098	1-indolylmethyl	1-imidazolylmethyl	3-pentyl	2-pentyl
4099	1-triazolylmethyl	1-indolylmethyl	3-pentyl	2-pentyl
4100	1-tetrazolylmethyl	1-triazolylmethyl	3-pentyl	2-pentyl
4101	2-pyridylmethyl	1-tetrazolylmethyl	3-pentyl	2-pentyl
4102	3-pyridylmethyl	2-pyridylmethyl	3-pentyl	2-pentyl
4103	4-pyridylmethyl	3-pyridylmethyl	3-pentyl	2-pentyl
4104	cyclohexylmethyl	4-pyridylmethyl	3-pentyl	2-pentyl
4105	2-naphthylmethyl	cyclohexylmethyl	3-pentyl	2-pentyl
4106	3-naphthylmethyl	2-naphthylmethyl	3-pentyl	2-pentyl
4107	2-thiophenylmethyl	3-naphthylmethyl	3-pentyl	2-pentyl
4108	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-pentyl	2-pentyl
4109	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-pentyl	2-pentyl
4110	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-pentyl	2-pentyl
4111	4-biphenylmethyl	2-thienylmethyl	3-pentyl	2-pentyl
4112	pyrimidinylmethyl	4-biphenylmethyl	3-pentyl	2-pentyl
4113	2-benzothiazolylmethyl	pyrimidinylmethyl	3-pentyl	2-pentyl
4114	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-pentyl	2-pentyl
4115	2-thiomethylethyl	2-benzothiophenylmethyl	3-pentyl	2-pentyl
4116	2-thiomethylmethyl	2-thiomethylethyl	3-pentyl	2-pentyl
4117	2-methylpropyl	2-thiomethylmethyl	3-pentyl	2-pentyl
4118	2-methylbutyl	2-methylpropyl	3-pentyl	2-pentyl

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4119	3-methylbutyl	2-methylbutyl	3-pentyl	2-pentyl
4120	cyclopropylmeth hyl	3-methylbutyl	3-pentyl	2-pentyl
4121	cyclobutylmeth yl	cyclopropylmethy l	3-pentyl	2-pentyl
4122	cyclopentylmet hyl	cyclobutylmethyl	3-pentyl	2-pentyl
4123	p- hydroxyphenyl- methyl	cyclopentylmethy l	3-pentyl	2-pentyl
4124	p- nitrophenylmet hyl	p-hydroxyphenyl- methyl	3-pentyl	2-pentyl
4125	p-aminophenyl- methyl	p- nitrophenylmethy l	3-pentyl	2-pentyl
4126	"4-(N,N- dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	3-pentyl	2-pentyl
4127		"4-(N,N- dimethylamino)ph enylmethyl" benzyl	3-methylbutyl	3-pentyl
4128	1- pyrolylmethyl		3-methylbutyl	3-pentyl
4129	1- pyrazolylmethy l	1-pyrolylmethyl	3-methylbutyl	3-pentyl
4130	1- imidazolylmeth yl	1- pyrazolylmethyl	3-methylbutyl	3-pentyl
4131	1- indolylmethyl	1- imidazolylmethyl	3-methylbutyl	3-pentyl
4132	1- triazolylmethy l	1-indolylmethyl	3-methylbutyl	3-pentyl
4133	1- tetrazolylmeth yl	1- triazolylmethyl	3-methylbutyl	3-pentyl
4134	2- pyridylmethyl	1- tetrazolylmethyl	3-methylbutyl	3-pentyl
4135	3- pyridylmethyl	2-pyridylmethyl	3-methylbutyl	3-pentyl
4136	4- pyridylmethyl	3-pyridylmethyl	3-methylbutyl	3-pentyl
4137	cyclohexylmeth yl	4-pyridylmethyl	3-methylbutyl	3-pentyl
4138	2- naphthylmethyl	cyclohexylmethyl	3-methylbutyl	3-pentyl
4139	3- naphthylmethyl	2-naphthylmethyl	3-methylbutyl	3-pentyl
4140	2- thiophenylmeth yl	3-naphthylmethyl	3-methylbutyl	3-pentyl
4141	4-(1- methyl)piperid inyl-methyl	2- thiophenylmethyl	3-methylbutyl	3-pentyl

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4142	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methylbutyl	3-pentyl
4143	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl	3-pentyl
4144	4-biphenylmethyl	2-thienylmethyl	3-methylbutyl	3-pentyl
4145	pyrimidinylmethyl	4-biphenylmethyl	3-methylbutyl	3-pentyl
4146	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylbutyl	3-pentyl
4147	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylbutyl	3-pentyl
4148	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylbutyl	3-pentyl
4149	2-thiomethylmethyl	2-thiomethylethyl	3-methylbutyl	3-pentyl
4150	2-methylpropyl	2-thiomethylmethyl	3-methylbutyl	3-pentyl
4151	2-methylbutyl	2-methylpropyl	3-methylbutyl	3-pentyl
4152	3-methylbutyl	2-methylbutyl	3-methylbutyl	3-pentyl
4153	cyclopropylmethyl	3-methylbutyl	3-methylbutyl	3-pentyl
4154	cyclobutylmethyl	cyclopropylmethyl	3-methylbutyl	3-pentyl
4155	cyclopentylmethyl	cyclobutylmethyl	3-methylbutyl	3-pentyl
4156	p-hydroxyphenylmethyl	cyclopentylmethyl	3-methylbutyl	3-pentyl
4157	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-methylbutyl	3-pentyl
4158	p-aminophenylmethyl	p-nitrophenylmethyl	3-methylbutyl	3-pentyl
4159	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	3-methylbutyl	3-pentyl
4160	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-methylbutyl	3-methylbutyl
4161	1-pyrollylmethyl	benzyl	2-methylbutyl	3-methylbutyl
4162	1-pyrazolylmethyl	1-pyrollylmethyl	2-methylbutyl	3-methylbutyl
4163	1-imidazolylmethyl	1-pyrazolylmethyl	2-methylbutyl	3-methylbutyl
4164	1-indolylmethyl	1-imidazolylmethyl	2-methylbutyl	3-methylbutyl

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4165	1-triazolylmethyl	1-indolylmethyl	2-methylbutyl	3-methylbutyl
4166	1-tetrazolylmethyl	1-triazolylmethyl	2-methylbutyl	3-methylbutyl
4167	2-pyridylmethyl	1-tetrazolylmethyl	2-methylbutyl	3-methylbutyl
4168	3-pyridylmethyl	2-pyridylmethyl	2-methylbutyl	3-methylbutyl
4169	4-pyridylmethyl	3-pyridylmethyl	2-methylbutyl	3-methylbutyl
4170	cyclohexylmethyl	4-pyridylmethyl	2-methylbutyl	3-methylbutyl
4171	2-naphthylmethyl	cyclohexylmethyl	2-methylbutyl	3-methylbutyl
4172	3-naphthylmethyl	2-naphthylmethyl	2-methylbutyl	3-methylbutyl
4173	2-thiophenylmethyl	3-naphthylmethyl	2-methylbutyl	3-methylbutyl
4174	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-methylbutyl	3-methylbutyl
4175	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-methylbutyl	3-methylbutyl
4176	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-methylbutyl	3-methylbutyl
4177	4-biphenylmethyl	2-thienylmethyl	2-methylbutyl	3-methylbutyl
4178	pyrimidinylmethyl	4-biphenylmethyl	2-methylbutyl	3-methylbutyl
4179	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methylbutyl	3-methylbutyl
4180	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methylbutyl	3-methylbutyl
4181	2-thiomethylethyl	2-benzothiophenylmethyl	2-methylbutyl	3-methylbutyl
4182	2-thiomethylmethyl	2-thiomethylethyl	2-methylbutyl	3-methylbutyl
4183	2-methylpropyl	2-thiomethylmethyl	2-methylbutyl	3-methylbutyl
4184	2-methylbutyl	2-methylpropyl	2-methylbutyl	3-methylbutyl
4185	3-methylbutyl	2-methylbutyl	2-methylbutyl	3-methylbutyl
4186	cyclopropylmethyl	3-methylbutyl	2-methylbutyl	3-methylbutyl
4187	cyclobutylmethyl	cyclopropylmethyl	2-methylbutyl	3-methylbutyl
4188	cyclopentylmethyl	cyclobutylmethyl	2-methylbutyl	3-methylbutyl

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4189	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-methylbutyl	3-methylbutyl
4190	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-methylbutyl	3-methylbutyl
4191	p-aminophenyl-methyl	p-nitrophenylmethyl	2-methylbutyl	3-methylbutyl
4192	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	2-methylbutyl	3-methylbutyl
4193	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	propargyl	2-methylbutyl
4194	1-pyrolylmethyl	benzyl	propargyl	2-methylbutyl
4195	1-pyrazolylmethyl	1-pyrolylmethyl	propargyl	2-methylbutyl
4196	1-imidazolylmethyl	1-pyrazolylmethyl	propargyl	2-methylbutyl
4197	1-indolylmethyl	1-imidazolylmethyl	propargyl	2-methylbutyl
4198	1-triazolylmethyl	1-indolylmethyl	propargyl	2-methylbutyl
4199	1-tetrazolylmethyl	1-triazolylmethyl	propargyl	2-methylbutyl
4200	2-pyridylmethyl	1-tetrazolylmethyl	propargyl	2-methylbutyl
4201	3-pyridylmethyl	2-pyridylmethyl	propargyl	2-methylbutyl
4202	4-pyridylmethyl	3-pyridylmethyl	propargyl	2-methylbutyl
4203	cyclohexylmethyl	4-pyridylmethyl	propargyl	2-methylbutyl
4204	2-naphthylmethyl	cyclohexylmethyl	propargyl	2-methylbutyl
4205	3-naphthylmethyl	2-naphthylmethyl	propargyl	2-methylbutyl
4206	2-thiophenylmethyl	3-naphthylmethyl	propargyl	2-methylbutyl
4207	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	propargyl	2-methylbutyl
4208	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	propargyl	2-methylbutyl
4209	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	propargyl	2-methylbutyl
4210	4-biphenylmethyl	2-thienylmethyl	propargyl	2-methylbutyl

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4211	pyrimidinylmet hyl	4-biphenylmethyl	propargyl	2-methylbutyl
4212	2- benzothiazolyl methyl	pyrimidinylmethy l	propargyl	2-methylbutyl
4213	2- benzothiopheny lmethyl	2- benzothiazolylme thyl	propargyl	2-methylbutyl
4214	2- thiomethylethy l	2- benzothiophenylm ethyl	propargyl	2-methylbutyl
4215	2- thiomethylmeth yl	2- thiomethylethyl	propargyl	2-methylbutyl
4216	2-methylpropyl	2- thiomethylmethyl	propargyl	2-methylbutyl
4217	2-methylbutyl	2-methylpropyl	propargyl	2-methylbutyl
4218	3-methylbutyl	2-methylbutyl	propargyl	2-methylbutyl
4219	cyclopropylmet hyl	3-methylbutyl	propargyl	2-methylbutyl
4220	cyclobutylmeth yl	cyclopropylmethy l	propargyl	2-methylbutyl
4221	cyclopentylmet hyl	cyclobutylmethyl	propargyl	2-methylbutyl
4222	p- hydroxyphenyl- methyl	cyclopentylmethy l	propargyl	2-methylbutyl
4223	p- nitrophenylmet hyl	p-hydroxyphenyl- methyl	propargyl	2-methylbutyl
4224	p-aminophenyl- methyl	p- nitrophenylmethy l	propargyl	2-methylbutyl
4225	"4-(N,N- dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	propargyl	2-methylbutyl
4226		"4-(N,N- dimethylamino)ph enylmethyl" benzyl	cyclobutyl	propargyl
4227	1- pyrolylmethyl		cyclobutyl	propargyl
4228	1- pyrazolylmethy l	1-pyrolylmethyl	cyclobutyl	propargyl
4229	1- imidazolylmeth yl	1- pyrazolylmethyl	cyclobutyl	propargyl
4230	1- indolylmethyl	1- imidazolylmethyl	cyclobutyl	propargyl
4231	1- triazolylmethy l	1-indolylmethyl	cyclobutyl	propargyl
4232	1- tetrazolylmeth yl	1- triazolylmethyl	cyclobutyl	propargyl
4233	2- pyridylmethyl	1- tetrazolylmethyl	cyclobutyl	propargyl

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4234	3-pyridylmethyl	2-pyridylmethyl	cyclobutyl	propargyl
4235	4-pyridylmethyl	3-pyridylmethyl	cyclobutyl	propargyl
4236	cyclohexylmethyl	4-pyridylmethyl	cyclobutyl	propargyl
4237	2-naphthylmethyl	cyclohexylmethyl	cyclobutyl	propargyl
4238	3-naphthylmethyl	2-naphthylmethyl	cyclobutyl	propargyl
4239	2-thiophenylmethyl	3-naphthylmethyl	cyclobutyl	propargyl
4240	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclobutyl	propargyl
4241	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclobutyl	propargyl
4242	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclobutyl	propargyl
4243	4-biphenylmethyl	2-thienylmethyl	cyclobutyl	propargyl
4244	pyrimidinylmethyl	4-biphenylmethyl	cyclobutyl	propargyl
4245	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclobutyl	propargyl
4246	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclobutyl	propargyl
4247	2-thiomethylethyl	2-benzothiophenylmethyl	cyclobutyl	propargyl
4248	2-thiomethylmethyl	2-thiomethylethyl	cyclobutyl	propargyl
4249	2-methylpropyl	2-thiomethylmethyl	cyclobutyl	propargyl
4250	2-methylbutyl	2-methylpropyl	cyclobutyl	propargyl
4251	3-methylbutyl	2-methylbutyl	cyclobutyl	propargyl
4252	cyclopropylmethyl	3-methylbutyl	cyclobutyl	propargyl
4253	cyclobutylmethyl	cyclopropylmethyl	cyclobutyl	propargyl
4254	cyclopentylmethyl	cyclobutylmethyl	cyclobutyl	propargyl
4255	p-hydroxyphenylmethyl	cyclopentylmethyl	cyclobutyl	propargyl
4256	p-nitrophenylmethyl	p-hydroxyphenylmethyl	cyclobutyl	propargyl
4257	p-aminophenylmethyl	p-nitrophenylmethyl	cyclobutyl	propargyl

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4258	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenyl-methyl	cyclobutyl	propargyl
4259	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclobutylmeth yl	cyclobutyl
4260	1-pyrolylmethyl	benzyl	cyclobutylmeth yl	cyclobutyl
4261	1-pyrazolymethyl	1-pyrolylmethyl	cyclobutylmeth yl	cyclobutyl
4262	1-imidazolymethyl	1-pyrazolymethyl	cyclobutylmeth yl	cyclobutyl
4263	1-indolymethyl	1-imidazolymethyl	cyclobutylmeth yl	cyclobutyl
4264	1-triazolymethyl	1-indolymethyl	cyclobutylmeth yl	cyclobutyl
4265	1-tetrazolymethyl	1-triazolymethyl	cyclobutylmeth yl	cyclobutyl
4266	2-pyridylmethyl	1-tetrazolymethyl	cyclobutylmeth yl	cyclobutyl
4267	3-pyridylmethyl	2-pyridylmethyl	cyclobutylmeth yl	cyclobutyl
4268	4-pyridylmethyl	3-pyridylmethyl	cyclobutylmeth yl	cyclobutyl
4269	cyclohexylmeth yl	4-pyridylmethyl	cyclobutylmeth yl	cyclobutyl
4270	2-naphthylmethyl	cyclohexylmethyl	cyclobutylmeth yl	cyclobutyl
4271	3-naphthylmethyl	2-naphthylmethyl	cyclobutylmeth yl	cyclobutyl
4272	2-thiophenylmeth yl	3-naphthylmethyl	cyclobutylmeth yl	cyclobutyl
4273	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclobutylmeth yl	cyclobutyl
4274	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclobutylmeth yl	cyclobutyl
4275	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclobutylmeth yl	cyclobutyl
4276	4-biphenylmethyl	2-thienylmethyl	cyclobutylmeth yl	cyclobutyl
4277	pyrimidinylmeth yl	4-biphenylmethyl	cyclobutylmeth yl	cyclobutyl
4278	2-benzothiazolyl methyl	pyrimidinylmethy l	cyclobutylmeth yl	cyclobutyl
4279	2-benzothiophenyl methyl	2-benzothiazolylme thyl	cyclobutylmeth yl	cyclobutyl

Table 6

4280	2-thiomethylethyl	2-benzothiophenylethyl	cyclobutylmeth yl	cyclobutyl
4281	2-thiomethylmeth yl	2-thiomethylethyl	cyclobutylmeth yl	cyclobutyl
4282	2-methylpropyl	2-thiomethylmethyl	cyclobutylmeth yl	cyclobutyl
4283	2-methylbutyl	2-methylpropyl	cyclobutylmeth yl	cyclobutyl
4284	3-methylbutyl	2-methylbutyl	cyclobutylmeth yl	cyclobutyl
4285	cyclopropylmeth yl	3-methylbutyl	cyclobutylmeth yl	cyclobutyl
4286	cyclobutylmeth yl	cyclopropylmethy l	cyclobutylmeth yl	cyclobutyl
4287	cyclopentylmeth yl	cyclobutylmethyl	cyclobutylmeth yl	cyclobutyl
4288	p-hydroxyphenyl- methyl	cyclopentylmethy l	cyclobutylmeth yl	cyclobutyl
4289	p-nitrophenylmeth yl	p-hydroxyphenyl- methyl	cyclobutylmeth yl	cyclobutyl
4290	p-aminophenyl- methyl	p-nitrophenylmethy l	cyclobutylmeth yl	cyclobutyl
4291	"4-(N,N-dimethylamino) phenylmethyl" benzyl	p-aminophenyl- methyl	cyclobutylmeth yl	cyclobutyl
4292		"4-(N,N-dimethylamino)ph enylmethyl" benzyl	cyclopentyl	cyclobutylmethy l
4293	1-pyrollylmethyl		cyclopentyl	cyclobutylmethy l
4294	1-pyrazolylmethy l	1-pyrollylmethyl	cyclopentyl	cyclobutylmethy l
4295	1-imidazolylmeth yl	1-pyrazolylmethyl	cyclopentyl	cyclobutylmethy l
4296	1-indolylmethyl	1-imidazolylmethyl	cyclopentyl	cyclobutylmethy l
4297	1-triazolylmethy l	1-indolylmethyl	cyclopentyl	cyclobutylmethy l
4298	1-tetrazolylmeth yl	1-triazolylmethyl	cyclopentyl	cyclobutylmethy l
4299	2-pyridylmethyl	1-tetrazolylmethyl	cyclopentyl	cyclobutylmethy l
4300	3-pyridylmethyl	2-pyridylmethyl	cyclopentyl	cyclobutylmethy l
4301	4-pyridylmethyl	3-pyridylmethyl	cyclopentyl	cyclobutylmethy l
4302	cyclohexylmeth yl	4-pyridylmethyl	cyclopentyl	cyclobutylmethy l

Table 6				
4303	2-naphthylmethyl	cyclohexylmethyl	cyclopentyl	cyclobutylmethyl
4304	3-naphthylmethyl	2-naphthylmethyl	cyclopentyl	cyclobutylmethyl
4305	2-thiophenylmethyl	3-naphthylmethyl	cyclopentyl	cyclobutylmethyl
4306	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclopentyl	cyclobutylmethyl
4307	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclopentyl	cyclobutylmethyl
4308	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopentyl	cyclobutylmethyl
4309	4-biphenylmethyl	2-thienylmethyl	cyclopentyl	cyclobutylmethyl
4310	pyrimidinylmethyl	4-biphenylmethyl	cyclopentyl	cyclobutylmethyl
4311	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopentyl	cyclobutylmethyl
4312	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopentyl	cyclobutylmethyl
4313	2-thiomethylethyl	2-benzothiophenylmethyl	cyclopentyl	cyclobutylmethyl
4314	2-thiomethylmethyl	2-thiomethylethyl	cyclopentyl	cyclobutylmethyl
4315	2-methylpropyl	2-thiomethylmethyl	cyclopentyl	cyclobutylmethyl
4316	2-methylbutyl	2-methylpropyl	cyclopentyl	cyclobutylmethyl
4317	3-methylbutyl	2-methylbutyl	cyclopentyl	cyclobutylmethyl
4318	cyclopropylmethyl	3-methylbutyl	cyclopentyl	cyclobutylmethyl
4319	cyclobutylmethyl	cyclopropylmethyl	cyclopentyl	cyclobutylmethyl
4320	cyclopentylmethyl	cyclobutylmethyl	cyclopentyl	cyclobutylmethyl
4321	p-hydroxyphenylmethyl	cyclopentylmethyl	cyclopentyl	cyclobutylmethyl
4322	p-nitrophenylmethyl	p-hydroxyphenylmethyl	cyclopentyl	cyclobutylmethyl
4323	p-aminophenylmethyl	p-nitrophenylmethyl	cyclopentyl	cyclobutylmethyl
4324	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	cyclopentyl	cyclobutylmethyl

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4325	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	cyclopentylmethyl	cyclopentyl
4326	1-pyrolylmethyl	benzyl	cyclopentylmethyl	cyclopentyl
4327	1-pyrazolylmethyl	1-pyrolylmethyl	cyclopentylmethyl	cyclopentyl
4328	1-imidazolylmethyl	1-pyrazolylmethyl	cyclopentylmethyl	cyclopentyl
4329	1-indolylmethyl	1-imidazolylmethyl	cyclopentylmethyl	cyclopentyl
4330	1-triazolylmethyl	1-indolylmethyl	cyclopentylmethyl	cyclopentyl
4331	1-tetrazolylmethyl	1-triazolylmethyl	cyclopentylmethyl	cyclopentyl
4332	2-pyridylmethyl	1-tetrazolylmethyl	cyclopentylmethyl	cyclopentyl
4333	3-pyridylmethyl	2-pyridylmethyl	cyclopentylmethyl	cyclopentyl
4334	4-pyridylmethyl	3-pyridylmethyl	cyclopentylmethyl	cyclopentyl
4335	cyclohexylmethyl	4-pyridylmethyl	cyclopentylmethyl	cyclopentyl
4336	2-naphthylmethyl	cyclohexylmethyl	cyclopentylmethyl	cyclopentyl
4337	3-naphthylmethyl	2-naphthylmethyl	cyclopentylmethyl	cyclopentyl
4338	2-thiophenylmethyl	3-naphthylmethyl	cyclopentylmethyl	cyclopentyl
4339	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	cyclopentylmethyl	cyclopentyl
4340	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	cyclopentylmethyl	cyclopentyl
4341	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopentylmethyl	cyclopentyl
4342	4-biphenylmethyl	2-thienylmethyl	cyclopentylmethyl	cyclopentyl
4343	pyrimidinylmethyl	4-biphenylmethyl	cyclopentylmethyl	cyclopentyl
4344	2-benzothiazolylmethyl	pyrimidinylmethyl	cyclopentylmethyl	cyclopentyl
4345	2-benzothiophenylmethyl	2-benzothiazolylmethyl	cyclopentylmethyl	cyclopentyl
4346	2-thiomethylethyl	2-benzothiophenylmethyl	cyclopentylmethyl	cyclopentyl

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4347	2-thiomethylmethyl	2-thiomethylethyl	cyclopentylmethyl	cyclopentyl
4348	2-methylpropyl	2-thiomethylmethyl	cyclopentylmethyl	cyclopentyl
4349	2-methylbutyl	2-methylpropyl	cyclopentylmethyl	cyclopentyl
4350	3-methylbutyl	2-methylbutyl	cyclopentylmethyl	cyclopentyl
4351	cyclopropylmethyl	3-methylbutyl	cyclopentylmethyl	cyclopentyl
4352	cyclobutylmethyl	cyclopropylmethyl	cyclopentylmethyl	cyclopentyl
4353	cyclopentylmethyl	cyclobutylmethyl	cyclopentylmethyl	cyclopentyl
4354	p-hydroxyphenylmethyl	cyclopentylmethyl	cyclopentylmethyl	cyclopentyl
4355	p-nitrophenylmethyl	p-hydroxyphenylmethyl	cyclopentylmethyl	cyclopentyl
4356	p-aminophenylmethyl	p-nitrophenylmethyl	cyclopentylmethyl	cyclopentyl
4357	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	cyclopentylmethyl	cyclopentyl
4358	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	1-hexyl	cyclopentylmethyl
4359	1-pyrolylmethyl	benzyl	1-hexyl	cyclopentylmethyl
4360	1-pyrazolylmethyl	1-pyrolylmethyl	1-hexyl	cyclopentylmethyl
4361	1-imidazolylmethyl	1-pyrazolylmethyl	1-hexyl	cyclopentylmethyl
4362	1-indolylmethyl	1-imidazolylmethyl	1-hexyl	cyclopentylmethyl
4363	1-triazolylmethyl	1-indolylmethyl	1-hexyl	cyclopentylmethyl
4364	1-tetrazolylmethyl	1-triazolylmethyl	1-hexyl	cyclopentylmethyl
4365	2-pyridylmethyl	1-tetrazolylmethyl	1-hexyl	cyclopentylmethyl
4366	3-pyridylmethyl	2-pyridylmethyl	1-hexyl	cyclopentylmethyl
4367	4-pyridylmethyl	3-pyridylmethyl	1-hexyl	cyclopentylmethyl
4368	cyclohexylmethyl	4-pyridylmethyl	1-hexyl	cyclopentylmethyl
4369	2-naphthylmethyl	cyclohexylmethyl	1-hexyl	cyclopentylmethyl
4370	3-naphthylmethyl	2-naphthylmethyl	1-hexyl	cyclopentylmethyl

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4371	2-thiophenylmethyl	3-naphthylmethyl	1-hexyl	cyclopentylmethyl
4372	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	1-hexyl	cyclopentylmethyl
4373	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	1-hexyl	cyclopentylmethyl
4374	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	1-hexyl	cyclopentylmethyl
4375	4-biphenylmethyl	2-thienylmethyl	1-hexyl	cyclopentylmethyl
4376	pyrimidinylmethyl	4-biphenylmethyl	1-hexyl	cyclopentylmethyl
4377	2-benzothiazolylmethyl	pyrimidinylmethyl	1-hexyl	cyclopentylmethyl
4378	2-benzothiophenylmethyl	2-benzothiazolylmethyl	1-hexyl	cyclopentylmethyl
4379	2-thiomethylethyl	2-benzothiophenylmethyl	1-hexyl	cyclopentylmethyl
4380	2-thiomethylmethyl	2-thiomethylethyl	1-hexyl	cyclopentylmethyl
4381	2-methylpropyl	2-thiomethylmethyl	1-hexyl	cyclopentylmethyl
4382	2-methylbutyl	2-methylpropyl	1-hexyl	cyclopentylmethyl
4383	3-methylbutyl	2-methylbutyl	1-hexyl	cyclopentylmethyl
4384	cyclopropylmethyl	3-methylbutyl	1-hexyl	cyclopentylmethyl
4385	cyclobutylmethyl	cyclopropylmethyl	1-hexyl	cyclopentylmethyl
4386	cyclopentylmethyl	cyclobutylmethyl	1-hexyl	cyclopentylmethyl
4387	p-hydroxyphenylmethyl	cyclopentylmethyl	1-hexyl	cyclopentylmethyl
4388	p-nitrophenylmethyl	p-hydroxyphenylmethyl	1-hexyl	cyclopentylmethyl
4389	p-aminophenylmethyl	p-nitrophenylmethyl	1-hexyl	cyclopentylmethyl
4390	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	1-hexyl	cyclopentylmethyl
4391	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	4-methylpentyl	1-hexyl
4392	1-pyrolylmethyl	benzyl	4-methylpentyl	1-hexyl

Table 6			
4393	1-pyrazolylmethyl	1-pyrazolylmethyl	4-methylpentyl 1-hexyl
4394	1-imidazolylmethyl	1-pyrazolylmethyl	4-methylpentyl 1-hexyl
4395	1-indolylmethyl	1-imidazolylmethyl	4-methylpentyl 1-hexyl
4396	1-triazolylmethyl	1-indolylmethyl	4-methylpentyl 1-hexyl
4397	1-tetrazolylmethyl	1-triazolylmethyl	4-methylpentyl 1-hexyl
4398	2-pyridylmethyl	1-tetrazolylmethyl	4-methylpentyl 1-hexyl
4399	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl 1-hexyl
4400	4-pyridylmethyl	3-pyridylmethyl	4-methylpentyl 1-hexyl
4401	cyclohexylmethyl	4-pyridylmethyl	4-methylpentyl 1-hexyl
4402	2-naphthylmethyl	cyclohexylmethyl	4-methylpentyl 1-hexyl
4403	3-naphthylmethyl	2-naphthylmethyl	4-methylpentyl 1-hexyl
4404	2-thiophenylmethyl	3-naphthylmethyl	4-methylpentyl 1-hexyl
4405	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	4-methylpentyl 1-hexyl
4406	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	4-methylpentyl 1-hexyl
4407	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	4-methylpentyl 1-hexyl
4408	4-biphenylmethyl	2-thienylmethyl	4-methylpentyl 1-hexyl
4409	pyrimidinylmethyl	4-biphenylmethyl	4-methylpentyl 1-hexyl
4410	2-benzothiazolylmethyl	pyrimidinylmethyl	4-methylpentyl 1-hexyl
4411	2-benzothiophenylmethyl	2-benzothiazolylmethyl	4-methylpentyl 1-hexyl
4412	2-thiomethylethyl	2-benzothiophenylmethyl	4-methylpentyl 1-hexyl
4413	2-thiomethylmethyl	2-thiomethylethyl	4-methylpentyl 1-hexyl
4414	2-methylpropyl	2-thiomethylmethyl	4-methylpentyl 1-hexyl
4415	2-methylbutyl	2-methylpropyl	4-methylpentyl 1-hexyl

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4416	3-methylbutyl	2-methylbutyl	4-methylpentyl	1-hexyl
4417	cyclopropylmeth yl	3-methylbutyl	4-methylpentyl	1-hexyl
4418	cyclobutylmeth yl	cyclopropylmethy l	4-methylpentyl	1-hexyl
4419	cyclopentylmet hyl	cyclobutylmethy l	4-methylpentyl	1-hexyl
4420	p- hydroxyphenyl- methyl	cyclopentylmethy l	4-methylpentyl	1-hexyl
4421	p- nitrophenylmet hyl	p-hydroxyphenyl- methyl	4-methylpentyl	1-hexyl
4422	p-aminophenyl- methyl	p-nitrophenyl- methyl	4-methylpentyl	1-hexyl
4423	"4-(N,N- dimethylamino) phenylmethyl"	p-aminophenyl- methyl	4-methylpentyl	1-hexyl
4424	benzyl	"4-(N,N- dimethyl-amino)- phenylmethyl" benzyl	3-methylpentyl	4-methylpentyl
4425	1-pyrolyl- methyl		3-methylpentyl	4-methylpentyl
4426	1-pyrazolyl- methyl	1-pyrolylmethyl	3-methylpentyl	4-methylpentyl
4427	1-imidazolyl- methyl	1- pyrazolylmethyl	3-methylpentyl	4-methylpentyl
4428	1-indolyl- methyl	1- imidazolylmethyl	3-methylpentyl	4-methylpentyl
4429	1-triazolyl- methyl	1-indolylmethyl	3-methylpentyl	4-methylpentyl
4430	1-tetrazolyl- methyl	1- triazolylmethyl	3-methylpentyl	4-methylpentyl
4431	2-pyridyl- methyl	1- tetrazolylmethyl	3-methylpentyl	4-methylpentyl
4432	3- pyridylmethyl	2-pyridylmethyl	3-methylpentyl	4-methylpentyl
4433	4- pyridylmethyl	3-pyridylmethyl	3-methylpentyl	4-methylpentyl
4434	cyclohexylmeth yl	4-pyridylmethyl	3-methylpentyl	4-methylpentyl
4435	2- naphthylmethyl	cyclohexylmethyl	3-methylpentyl	4-methylpentyl
4436	3- naphthylmethyl	2-naphthylmethyl	3-methylpentyl	4-methylpentyl
4437	2-thiophenyl- methyl	3-naphthylmethyl	3-methylpentyl	4-methylpentyl
4438	4-(1- methyl)piperid inyl-methyl	2- thiophenylmethyl	3-methylpentyl	4-methylpentyl
4439	"(3,4- methylenedioxy phenyl)methyl"	4-(1- methyl)piperidin yl-methyl	3-methylpentyl	4-methylpentyl
4440	2- thienylmethyl	"(3,4- methylenedioxyph enyl)methyl"	3-methylpentyl	4-methylpentyl

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4441	4-biphenylmethyl	2-thienylmethyl	3-methylpentyl	4-methylpentyl
4442	pyrimidinylmethyl	4-biphenylmethyl	3-methylpentyl	4-methylpentyl
4443	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylpentyl	4-methylpentyl
4444	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylpentyl	4-methylpentyl
4445	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylpentyl	4-methylpentyl
4446	2-thiomethylmethyl	2-thiomethylethyl	3-methylpentyl	4-methylpentyl
4447	2-methylpropyl	2-thiomethylmethyl	3-methylpentyl	4-methylpentyl
4448	2-methylbutyl	2-methylpropyl	3-methylpentyl	4-methylpentyl
4449	3-methylbutyl	2-methylbutyl	3-methylpentyl	4-methylpentyl
4450	cyclopropylmethyl	3-methylbutyl	3-methylpentyl	4-methylpentyl
4451	cyclobutylmethyl	cyclopropylmethyl	3-methylpentyl	4-methylpentyl
4452	cyclopentylmethyl	cyclobutylmethyl	3-methylpentyl	4-methylpentyl
4453	p-hydroxyphenylmethyl	cyclopentylmethyl	3-methylpentyl	4-methylpentyl
4454	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-methylpentyl	4-methylpentyl
4455	p-aminophenylmethyl	p-nitrophenylmethyl	3-methylpentyl	4-methylpentyl
4456	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	3-methylpentyl	4-methylpentyl
4457	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	isopropyl	3-methylpentyl
4458	1-pyrolylmethyl	benzyl	isopropyl	3-methylpentyl
4459	1-pyrazolylmethyl	1-pyrolylmethyl	isopropyl	3-methylpentyl
4460	1-imidazolylmethyl	1-pyrazolylmethyl	isopropyl	3-methylpentyl
4461	1-indolylmethyl	1-imidazolylmethyl	isopropyl	3-methylpentyl
4462	1-triazolylmethyl	1-indolylmethyl	isopropyl	3-methylpentyl
4463	1-tetrazolylmethyl	1-triazolylmethyl	isopropyl	3-methylpentyl

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4464	2-pyridylmethyl	1-tetrazolylmethyl	isopropyl	3-methylpentyl
4465	3-pyridylmethyl	2-pyridylmethyl	isopropyl	3-methylpentyl
4466	4-pyridylmethyl	3-pyridylmethyl	isopropyl	3-methylpentyl
4467	cyclohexylmethyl	4-pyridylmethyl	isopropyl	3-methylpentyl
4468	2-naphthylmethyl	cyclohexylmethyl	isopropyl	3-methylpentyl
4469	3-naphthylmethyl	2-naphthylmethyl	isopropyl	3-methylpentyl
4470	2-thiophenylmethyl	3-naphthylmethyl	isopropyl	3-methylpentyl
4471	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	isopropyl	3-methylpentyl
4472	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	isopropyl	3-methylpentyl
4473	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	isopropyl	3-methylpentyl
4474	4-biphenylmethyl	2-thienylmethyl	isopropyl	3-methylpentyl
4475	pyrimidinylmethyl	4-biphenylmethyl	isopropyl	3-methylpentyl
4476	2-benzothiazolylmethyl	pyrimidinylmethyl	isopropyl	3-methylpentyl
4477	2-benzothio-phenylmethyl	2-benzothiazolylmethyl	isopropyl	3-methylpentyl
4478	2-thiomethyl-ethyl	2-benzothiophenylmethyl	isopropyl	3-methylpentyl
4479	2-thiomethyl-methyl	2-thiomethylethyl	isopropyl	3-methylpentyl
4480	2-methylpropyl	2-thiomethylmethyl	isopropyl	3-methylpentyl
4481	2-methylbutyl	2-methylpropyl	isopropyl	3-methylpentyl
4482	3-methylbutyl	2-methylbutyl	isopropyl	3-methylpentyl
4483	cyclopropyl-methyl	3-methylbutyl	isopropyl	3-methylpentyl
4484	cyclobutyl-methyl	cyclopropyl-methyl	isopropyl	3-methylpentyl
4485	cyclopentyl-methyl	cyclobutylmethyl	isopropyl	3-methylpentyl
4486	p-hydroxyphenyl-methyl	cyclopentyl-methyl	isopropyl	3-methylpentyl
4487	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	isopropyl	3-methylpentyl
4488	p-aminophenyl-methyl	p-nitrophenyl-methyl	isopropyl	3-methylpentyl

Table 6				
4489	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	isopropyl	3-methylpentyl
4490	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	3-methylbutyl	isopropyl
4491	1-pyrolylmethyl	benzyl	3-methylbutyl	isopropyl
4492	1-pyrazolylmethyl	1-pyrolylmethyl	3-methylbutyl	isopropyl
4493	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	isopropyl
4494	1-indolylmethyl	1-imidazolylmethyl	3-methylbutyl	isopropyl
4495	1-triazolylmethyl	1-indolylmethyl	3-methylbutyl	isopropyl
4496	1-tetrazolylmethyl	1-triazolylmethyl	3-methylbutyl	isopropyl
4497	2-pyridylmethyl	1-tetrazolylmethyl	3-methylbutyl	isopropyl
4498	3-pyridylmethyl	2-pyridylmethyl	3-methylbutyl	isopropyl
4499	4-pyridylmethyl	3-pyridylmethyl	3-methylbutyl	isopropyl
4500	cyclohexylmethyl	4-pyridylmethyl	3-methylbutyl	isopropyl
4501	2-naphthylmethyl	cyclohexylmethyl	3-methylbutyl	isopropyl
4502	3-naphthylmethyl	2-naphthylmethyl	3-methylbutyl	isopropyl
4503	2-thiophenylmethyl	3-naphthylmethyl	3-methylbutyl	isopropyl
4504	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-methylbutyl	isopropyl
4505	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	3-methylbutyl	isopropyl
4506	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-methylbutyl	isopropyl
4507	4-biphenylmethyl	2-thienylmethyl	3-methylbutyl	isopropyl
4508	pyrimidinylmethyl	4-biphenylmethyl	3-methylbutyl	isopropyl
4509	2-benzothiazolylmethyl	pyrimidinylmethyl	3-methylbutyl	isopropyl
4510	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-methylbutyl	isopropyl

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4511	2-thiomethylethyl	2-benzothiophenylmethyl	3-methylbutyl	isopropyl
4512	2-thiomethylmethyl	2-thiomethylethyl	3-methylbutyl	isopropyl
4513	2-methylpropyl	2-thiomethylmethyl	3-methylbutyl	isopropyl
4514	2-methylbutyl	2-methylpropyl	3-methylbutyl	isopropyl
4515	3-methylbutyl	2-methylbutyl	3-methylbutyl	isopropyl
4516	cyclopropylmethyl	3-methylbutyl	3-methylbutyl	isopropyl
4517	cyclobutylmethyl	cyclopropylmethyl	3-methylbutyl	isopropyl
4518	cyclopentylmethyl	cyclobutylmethyl	3-methylbutyl	isopropyl
4519	p-hydroxyphenylmethyl	cyclopentylmethyl	3-methylbutyl	isopropyl
4520	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-methylbutyl	isopropyl
4521	p-aminophenylmethyl	p-nitrophenylmethyl	3-methylbutyl	isopropyl
4522	"4-(N,N-dimethylamino)phenylmethyl	p-aminophenylmethyl	3-methylbutyl	isopropyl
4523	benzyl	"4-(N,N-dimethylamino)phenylmethyl	2-phenylethyl	3-methylbutyl
4524	1-pyrollylmethyl	benzyl	2-phenylethyl	3-methylbutyl
4525	1-pyrazolylmethyl	1-pyrollylmethyl	2-phenylethyl	3-methylbutyl
4526	1-imidazolylmethyl	1-pyrazolylmethyl	2-phenylethyl	3-methylbutyl
4527	1-indolylmethyl	1-imidazolylmethyl	2-phenylethyl	3-methylbutyl
4528	1-triazolylmethyl	1-indolylmethyl	2-phenylethyl	3-methylbutyl
4529	1-tetrazolylmethyl	1-triazolylmethyl	2-phenylethyl	3-methylbutyl
4530	2-pyridylmethyl	1-tetrazolylmethyl	2-phenylethyl	3-methylbutyl
4531	3-pyridylmethyl	2-pyridylmethyl	2-phenylethyl	3-methylbutyl
4532	4-pyridylmethyl	3-pyridylmethyl	2-phenylethyl	3-methylbutyl
4533	cyclohexylmethyl	4-pyridylmethyl	2-phenylethyl	3-methylbutyl

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4534	2-naphthylmethyl	cyclohexylmethyl	2-phenylethyl	3-methylbutyl
4535	3-naphthylmethyl	2-naphthylmethyl	2-phenylethyl	3-methylbutyl
4536	2-thiophenylmethyl	3-naphthylmethyl	2-phenylethyl	3-methylbutyl
4537	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-phenylethyl	3-methylbutyl
4538	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-phenylethyl	3-methylbutyl
4539	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-phenylethyl	3-methylbutyl
4540	4-biphenylmethyl	2-thienylmethyl	2-phenylethyl	3-methylbutyl
4541	pyrimidinylmethyl	4-biphenylmethyl	2-phenylethyl	3-methylbutyl
4542	2-benzothiazolylmethyl	pyrimidinylmethyl	2-phenylethyl	3-methylbutyl
4543	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-phenylethyl	3-methylbutyl
4544	2-thiomethylethyl	2-benzothiophenylmethyl	2-phenylethyl	3-methylbutyl
4545	2-thiomethylmethyl	2-thiomethylethyl	2-phenylethyl	3-methylbutyl
4546	2-methylpropyl	2-thiomethylmethyl	2-phenylethyl	3-methylbutyl
4547	2-methylbutyl	2-methylpropyl	2-phenylethyl	3-methylbutyl
4548	3-methylbutyl	2-methylbutyl	2-phenylethyl	3-methylbutyl
4549	cyclopropylmethyl	3-methylbutyl	2-phenylethyl	3-methylbutyl
4550	cyclobutylmethyl	cyclopropylmethyl	2-phenylethyl	3-methylbutyl
4551	cyclopentylmethyl	cyclobutylmethyl	2-phenylethyl	3-methylbutyl
4552	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-phenylethyl	3-methylbutyl
4553	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-phenylethyl	3-methylbutyl

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4554	p-aminophenyl-methyl	p-nitrophenylmethyl	2-phenylethyl	3-methylbutyl
4555	"4-(N,N-dimethylamino)phenylmethyl	p-aminophenyl-methyl	2-phenylethyl	3-methylbutyl
4556	benzyl	"4-(N,N-dimethylamino)phenylmethyl	3-phenylpropyl	2-phenylethyl
4557	1-pyrolylmethyl	benzyl	3-phenylpropyl	2-phenylethyl
4558	1-pyrazolylmethyl	1-pyrolylmethyl	3-phenylpropyl	2-phenylethyl
4559	1-imidazolylmethyl	1-pyrazolylmethyl	3-phenylpropyl	2-phenylethyl
4560	1-indolylmethyl	1-imidazolylmethyl	3-phenylpropyl	2-phenylethyl
4561	1-triazolylmethyl	1-indolylmethyl	3-phenylpropyl	2-phenylethyl
4562	1-tetrazolylmethyl	1-triazolylmethyl	3-phenylpropyl	2-phenylethyl
4563	2-pyridylmethyl	1-tetrazolylmethyl	3-phenylpropyl	2-phenylethyl
4564	3-pyridylmethyl	2-pyridylmethyl	3-phenylpropyl	2-phenylethyl
4565	4-pyridylmethyl	3-pyridylmethyl	3-phenylpropyl	2-phenylethyl
4566	cyclohexylmethyl	4-pyridylmethyl	3-phenylpropyl	2-phenylethyl
4567	2-naphthylmethyl	3-cyclohexylmethyl	3-phenylpropyl	2-phenylethyl
4568	1-3-naphthylmethyl	2-naphthylmethyl	3-phenylpropyl	2-phenylethyl
4569	2-thiophenylmethyl	1-3-naphthylmethyl	3-phenylpropyl	2-phenylethyl
4570	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	3-phenylpropyl	2-phenylethyl
4571	"(3,4-methylenedioxyphenyl)methyl	4-(1-methyl)piperidinyl-methyl	3-phenylpropyl	2-phenylethyl
4572	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl	3-phenylpropyl	2-phenylethyl

Table 6

4573	4-biphenylmethyl	2-thienylmethyl	3-phenylpropyl	2-phenylethyl
4574	pyrimidinylmethyl	4-biphenylmethyl	3-phenylpropyl	2-phenylethyl
4575	2-benzothiazolylmethyl	pyrimidinylmethyl	3-phenylpropyl	2-phenylethyl
4576	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-phenylpropyl	2-phenylethyl
4577	2-thiomethylethyl	2-benzothiophenylmethyl	3-phenylpropyl	2-phenylethyl
4578	2-thiomethylmethyl	2-thiomethylethyl	3-phenylpropyl	2-phenylethyl
4579	2-methylpropyl	2-thiomethylmethyl	3-phenylpropyl	2-phenylethyl
4580	2-methylbutyl	2-methylpropyl	3-phenylpropyl	2-phenylethyl
4581	3-methylbutyl	2-methylbutyl	3-phenylpropyl	2-phenylethyl
4582	cyclopropylmethyl	3-methylbutyl	3-phenylpropyl	2-phenylethyl
4583	cyclobutylmethyl	cyclopropylmethyl	3-phenylpropyl	2-phenylethyl
4584	cyclopentylmethyl	cyclobutylmethyl	3-phenylpropyl	2-phenylethyl
4585	p-hydroxyphenylmethyl	cyclopentylmethyl	3-phenylpropyl	2-phenylethyl
4586	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-phenylpropyl	2-phenylethyl
4587	p-aminophenylmethyl	p-nitrophenylmethyl	3-phenylpropyl	2-phenylethyl
4588	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	3-phenylpropyl	2-phenylethyl
4589	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4590	1-pyrollylmethyl	benzyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4591	1-pyrazolylmethyl	1-pyrollylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4592	1-imidazolylmethyl	1-pyrazolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl

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4593	1-indolylmethyl	1-imidazolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4594	1-triazolylmethyl	1-indolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4595	1-tetrazolylmethyl	1-triazolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4596	2-pyridylmethyl	1-tetrazolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4597	3-pyridylmethyl	2-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4598	4-pyridylmethyl	3-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4599	cyclohexylmethyl	4-pyridylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4600	2-naphthylmethyl	cyclohexylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4601	3-naphthylmethyl	2-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4602	2-thiophenylmethyl	3-naphthylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4603	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4604	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4605	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4606	4-biphenylmethyl	2-thienylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4607	pyrimidinylmethyl	4-biphenylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4608	2-benzothiazolylmethyl	pyrimidinylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4609	2-benzothiophenylmethyl	2-benzothiazolylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl
4610	2-thiomethylethyl	2-benzothiophenylmethyl	"2-(N,N-dimethylamino)ethyl"	3-phenylpropyl

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4611	2-thiomethylmet hyl	2-thiomethyleth yl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4612	2-methylpropyl	2-thiomethylmet hyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4613	2-methylbutyl	2-methylpropyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4614	3-methylbutyl	2-methylbutyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4615	cyclopropylmet hyl	3-methylbutyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4616	cyclobutylmet hyl	cyclopropylmet hyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4617	cyclopentylmet hyl	cyclobutylmet hyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4618	p-hydroxyphenyl -methyl	cyclopentylmet hyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4619	p-nitrophenylmet hyl	p-hydroxyphenyl -methyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4620	p-aminophenyl- methyl	p-nitrophenylmet hyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4621	"4-(N,N- dimethylamino)phenylmethyl	p-aminophenyl- methyl	"2-(N,N- dimethylamino)ethyl"	3-phenylpropyl
4622	benzyl	"4-(N,N- dimethylamino)phenylmethyl	3-oxetanyl- methyl	"2-(N,N- dimethyl- amino)ethyl"
4623	1-pyrolylmethyl	benzyl	3-oxetanyl- methyl	"2-(N,N- dimethyl- amino)ethyl"
4624	1-pyrazolyl- methyl	1-pyrolyl- methyl	3-oxetanyl- methyl	"2-(N,N- dimethyl- amino)ethyl"
4625	1-imidazolyl- methyl	1-pyrazolylmeth yl	3-oxetanyl- methyl	"2-(N,N- dimethylamino)ethyl"
4626	1-indolylmethyl	1-imidazolylmet hyl	3-oxetanyl- methyl	"2-(N,N- dimethylamino)ethyl"
4627	1-triazolyl- methyl	1-indolylmethyl	3-oxetanyl- methyl	"2-(N,N- dimethylamino)ethyl"
4628	1-tetrazolylmet hyl	1-triazolyl- methyl	3-oxetanyl- methyl	"2-(N,N- dimethylamino)ethyl"

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4629	2-pyridylmethyl	1-tetrazolylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4630	3-pyridylmethyl	2-pyridylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4631	4-pyridylmethyl	3-pyridylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4632	cyclohexylmethyl	4-pyridylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4633	2-naphthylmethyl	cyclohexylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4634	3-naphthylmethyl	2-naphthylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4635	2-thiophenylmethyl	3-naphthylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4636	4-(1-methyl)piperidinylmethyl	2-thiophenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4637	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4638	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4639	4-biphenylmethyl	2-thienylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4640	pyrimidinylmethyl	4-biphenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4641	2-benzothiazolylmethyl	pyrimidinylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4642	2-benzothiophenylmethyl	2-benzothiazolylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4643	2-thiomethylethyl	2-benzothiophenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4644	2-thiomethylmethyl	2-thiomethylethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4645	2-methylpropyl	2-thiomethylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4646	2-methylbutyl	2-methylpropyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"

Table 6

4647	3-methylbutyl	2-methylbutyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4648	cyclopropylmethyl	3-methylbutyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4649	cyclobutylmethyl	cyclopropylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4650	cyclopentylmethyl	cyclobutylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4651	p-hydroxyphenylmethyl	cyclopentylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4652	p-nitrophenylmethyl	p-hydroxyphenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4653	p-aminophenylmethyl	p-nitrophenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4654	"4-(N,N-dimethylamino)phenylmethyl"	p-aminophenylmethyl	3-oxetanylmethyl	"2-(N,N-dimethylamino)ethyl"
4655	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-tetrahydrofuran	3-oxetanylmethyl
4656	1-pyrollylmethyl	benzyl	2-tetrahydrofuran	3-oxetanylmethyl
4657	1-pyrazolylmethyl	1-pyrollylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4658	1-imidazolylmethyl	1-pyrazolylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4659	1-indolylmethyl	1-imidazolylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4660	1-triazolylmethyl	1-indolylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4661	1-tetrazolylmethyl	1-triazolylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4662	2-pyridylmethyl	1-tetrazolylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4663	3-pyridylmethyl	2-pyridylmethyl	2-tetrahydrofuran	3-oxetanylmethyl
4664	4-pyridylmethyl	3-pyridylmethyl	2-tetrahydrofuran	3-oxetanylmethyl

Table 6

4665	cyclohexylmet hyl	4- pyridylmethyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4666	2- naphthylmethy 1	cyclohexylmet hyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4667	3- naphthylmethy 1	2- naphthylmethy 1	2- tetrahydrofur anyl	3- oxetanylmethy 1
4668	2- thiophenylmet hyl	3- naphthylmethy 1	2- tetrahydrofur anyl	3- oxetanylmethy 1
4669	4-(1- methyl)piperi diny1-methyl	2- thiophenylmet hyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4670	"(3,4- methylenedio yphenyl)methy 1"	4-(1- methyl)piperi diny1-methyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4671	2- thienylmethyl	"(3,4- methylenedio yphenyl)methy 1"	2- tetrahydrofur anyl	3- oxetanylmethy 1
4672	4- biphenylmethy 1	2- thienylmethyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4673	pyrimidinylme thyl	4- biphenylmethy 1	2- tetrahydrofur anyl	3- oxetanylmethy 1
4674	2- benzothiazoly lmethyl	pyrimidinylme thyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4675	2- benzothiophen ylmethyl	2- benzothiazoly lmethyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4676	2- thiomethyleth yl	2- benzothiophen ylmethyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4677	2- thiomethylmet hyl	2- thiomethyleth yl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4678	2- methylpropyl	2- thiomethylmet hyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4679	2-methylbutyl	2- methylpropyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4680	3-methylbutyl	2-methylbutyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4681	cyclopropylme thyl	3-methylbutyl	2- tetrahydrofur anyl	3- oxetanylmethy 1
4682	cyclobutylmet hyl	cyclopropylme thyl	2- tetrahydrofur anyl	3- oxetanylmethy 1

Table 6

4683	cyclopentylmeth thyl	cyclobutylmeth hyl	2- tetrahydrofuran anil	3- oxetanymethyl 1
4684	p- hydroxyphenyl -methyl	cyclopentylmeth thyl	2- tetrahydrofuran anil	3- oxetanymethyl 1
4685	p- nitrophenylmeth thyl	p- hydroxyphenyl -methyl	2- tetrahydrofuran anil	3- oxetanymethyl 1
4686	p- aminophenyl- methyl	p- nitrophenylmeth thyl	2- tetrahydrofuran anil	3- oxetanymethyl 1
4687	"4-(N,N- dimethylamino)phenylmethyl "	p- aminophenyl- methyl	2- tetrahydrofuran anil	3- oxetanymethyl 1
4688	benzyl	"4-(N,N- dimethylamino)phenylmethyl "	2- methoxypropyl	2- tetrahydrofuran anil
4689	1- pyrolylmethyl	benzyl	2- methoxypropyl	2- tetrahydrofuran anil
4690	1- pyrazolylmeth yl	1- pyrolylmethyl	2- methoxypropyl	2- tetrahydrofuran anil
4691	1- imidazolylmeth hyl	1- pyrazolylmeth yl	2- methoxypropyl	2- tetrahydrofuran anil
4692	1- indolylmethyl	1- imidazolylmeth hyl	2- methoxypropyl	2- tetrahydrofuran anil
4693	1- triazolylmeth yl	1- indolylmethyl	2- methoxypropyl	2- tetrahydrofuran anil
4694	1- tetrazolylmeth hyl	1- triazolylmeth yl	2- methoxypropyl	2- tetrahydrofuran anil
4695	2- pyridylmethyl	1- tetrazolylmeth hyl	2- methoxypropyl	2- tetrahydrofuran anil
4696	3- pyridylmethyl	2- pyridylmethyl	2- methoxypropyl	2- tetrahydrofuran anil
4697	4- pyridylmethyl	3- pyridylmethyl	2- methoxypropyl	2- tetrahydrofuran anil
4698	cyclohexylmeth hyl	4- pyridylmethyl	2- methoxypropyl	2- tetrahydrofuran anil
4699	2- naphthylmethy l	cyclohexylmeth hyl	2- methoxypropyl	2- tetrahydrofuran anil
4700	3- naphthylmethy l	2- naphthylmethy l	2- methoxypropyl	2- tetrahydrofuran anil

Table 6

4701	2-thiophenylmethyl	3-naphthylmethyl	2-methoxypropyl	2-tetrahydrofuran
		1		anyl
4702	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-methoxypropyl	2-tetrahydrofuran
		hyl		anyl
4703	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-methoxypropyl	2-tetrahydrofuran
				anyl
4704	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-methoxypropyl	2-tetrahydrofuran
				anyl
4705	4-biphenylmethyl	2-thienylmethyl	2-methoxypropyl	2-tetrahydrofuran
	1			anyl
4706	pyrimidinylmethyl	4-biphenylmethyl	2-methoxypropyl	2-tetrahydrofuran
		1		anyl
4707	2-benzothiazolylmethyl	pyrimidinylmethyl	2-methoxypropyl	2-tetrahydrofuran
		thyl		anyl
4708	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-methoxypropyl	2-tetrahydrofuran
				anyl
4709	2-thiomethylethyl	2-benzothiophenylmethyl	2-methoxypropyl	2-tetrahydrofuran
				anyl
4710	2-thiomethylmethyl	2-thiomethylethyl	2-methoxypropyl	2-tetrahydrofuran
	hyl	yl		anyl
4711	2-methylpropyl	2-thiomethylmethyl	2-methoxypropyl	2-tetrahydrofuran
		hyl		anyl
4712	2-methylbutyl	2-methylpropyl	2-methoxypropyl	2-tetrahydrofuran
				anyl
4713	3-methylbutyl	2-methylbutyl	2-methoxypropyl	2-tetrahydrofuran
				anyl
4714	cyclopropylmethyl	3-methylbutyl	2-methoxypropyl	2-tetrahydrofuran
	thyl			anyl
4715	cyclobutylmethyl	cyclopropylmethyl	2-methoxypropyl	2-tetrahydrofuran
	hyl	thyl		anyl
4716	cyclopentylmethyl	cyclobutylmethyl	2-methoxypropyl	2-tetrahydrofuran
	thyl	hyl		anyl
4717	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-methoxypropyl	2-tetrahydrofuran
		thyl		anyl
4718	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-methoxypropyl	2-tetrahydrofuran
	thyl			anyl

Table 6

4719	p-aminophenyl-methyl	p-nitrophenylmethyl	2-methoxypropyl	2-tetrahydrofuran
4720	"4-(N,N-dimethylamino)phenylmethyl	p-aminophenyl-methyl	2-methoxypropyl	2-tetrahydrofuran
4721	benzyl	"4-(N,N-dimethylamino)phenylmethyl	2-ethoxyethyl	2-methoxypropyl
4722	1-pyrolylmethyl	benzyl	2-ethoxyethyl	2-methoxypropyl
4723	1-pyrazolylmethyl	1-pyrolylmethyl	2-ethoxyethyl	2-methoxypropyl
4724	1-imidazolylmethyl	1-pyrazolylmethyl	2-ethoxyethyl	2-methoxypropyl
4725	1-indolylmethyl	1-imidazolylmethyl	2-ethoxyethyl	2-methoxypropyl
4726	1-triazolylmethyl	1-indolylmethyl	2-ethoxyethyl	2-methoxypropyl
4727	1-tetrazolylmethyl	1-triazolylmethyl	2-ethoxyethyl	2-methoxypropyl
4728	2-pyridylmethyl	1-tetrazolylmethyl	2-ethoxyethyl	2-methoxypropyl
4729	3-pyridylmethyl	2-pyridylmethyl	2-ethoxyethyl	2-methoxypropyl
4730	4-pyridylmethyl	3-pyridylmethyl	2-ethoxyethyl	2-methoxypropyl
4731	cyclohexylmethyl	4-pyridylmethyl	2-ethoxyethyl	2-methoxypropyl
4732	2-naphthylmethyl	cyclohexylmethyl	2-ethoxyethyl	2-methoxypropyl
4733	3-naphthylmethyl	2-naphthylmethyl	2-ethoxyethyl	2-methoxypropyl
4734	2-thiophenylmethyl	3-naphthylmethyl	2-ethoxyethyl	2-methoxypropyl
4735	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-ethoxyethyl	2-methoxypropyl
4736	"(3,4-methylenedioxyphenyl)methyl	4-(1-methyl)piperidinyl-methyl	2-ethoxyethyl	2-methoxypropyl
4737	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl	2-ethoxyethyl	2-methoxypropyl

Table 6

4738	4-biphenylmethy l	2-thienylmethy l	2-ethoxyethyl	2-methoxypropyl
4739	pyrimidinylme thyl	4-biphenylmethy l	2-ethoxyethyl	2-methoxypropyl
4740	2-benzothiazoly lmethyl	pyrimidinylme thyl	2-ethoxyethyl	2-methoxypropyl
4741	2-benzothiophen ylmethy l	2-benzothiazoly lmethyl	2-ethoxyethyl	2-methoxypropyl
4742	2-thiomethyleth yl	2-benzothiophen ylmethy l	2-ethoxyethyl	2-methoxypropyl
4743	2-thiomethylmet hyl	2-thiomethyleth yl	2-ethoxyethyl	2-methoxypropyl
4744	2-methylpropyl	2-thiomethylmet hyl	2-ethoxyethyl	2-methoxypropyl
4745	2-methylbutyl	2-methylpropyl	2-ethoxyethyl	2-methoxypropyl
4746	3-methylbutyl	2-methylbutyl	2-ethoxyethyl	2-methoxypropyl
4747	cyclopropylme thyl	3-methylbutyl	2-ethoxyethyl	2-methoxypropyl
4748	cyclobutylmet hyl	cyclopropylme thyl	2-ethoxyethyl	2-methoxypropyl
4749	cyclopentylme thyl	cyclobutylmet hyl	2-ethoxyethyl	2-methoxypropyl
4750	p-hydroxyphenyl -methyl	cyclopentylme thyl	2-ethoxyethyl	2-methoxypropyl
4751	p-nitrophenylme thyl	p-hydroxyphenyl -methyl	2-ethoxyethyl	2-methoxypropyl
4752	p-aminophenyl- methyl	p-nitrophenylme thyl	2-ethoxyethyl	2-methoxypropyl
4753	"4-(N,N- dimethylamino)phenylmethy l	p-aminophenyl- methyl	2-ethoxyethyl	2-methoxypropyl
4754	benzyl	"4-(N,N- dimethylamino)phenylmethy l	2-(1-pyrol yl)ethyl	2-ethoxyethyl
4755	1-pyrol ylmethy l	benzyl	2-(1-pyrol yl)ethyl	2-ethoxyethyl
4756	1-pyrazolylmeth yl	1-pyrol ylmethy l	2-(1-pyrol yl)ethyl	2-ethoxyethyl
4757	1-imidazolylmet hyl	1-pyrazolylmeth yl	2-(1-pyrol yl)ethyl	2-ethoxyethyl

Table 6

4758	1-indolylmethyl	1-imidazolylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4759	1-triazolylmethyl	1-indolylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4760	1-tetrazolylmethyl	1-triazolylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4761	2-pyridylmethyl	1-tetrazolylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4762	3-pyridylmethyl	2-pyridylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4763	4-pyridylmethyl	3-pyridylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4764	cyclohexylmethyl	4-pyridylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4765	2-naphthylmethyl	cyclohexylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4766	3-naphthylmethyl	2-naphthylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4767	2-thiophenylmethyl	3-naphthylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4768	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4769	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4770	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4771	4-biphenylmethyl	2-thienylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4772	pyrimidinylmethyl	4-biphenylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4773	2-benzothiazolylmethyl	pyrimidinylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4774	2-benzothio-phenylmethyl	2-benzothiazolylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4775	2-thiomethyl-ethyl	2-benzothio-phenylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4776	2-thiomethyl-methyl	2-thiomethyl-ethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4777	2-methylpropyl	2-thiomethyl-methyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl

Table 6

4778	2-methylbutyl	2-methylpropyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4779	3-methylbutyl	2-methylbutyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4780	cyclopropyl-methyl	3-methylbutyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4781	cyclobutyl-methyl	cyclopropylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4782	cyclopentyl-methyl	cyclobutylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4783	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4784	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4785	p-aminophenyl-methyl	p-nitrophenylmethyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4786	"4-(N,N-dimethylamino)phenylmethyl	p-aminophenyl-methyl	2-(1-pyrolyl)ethyl	2-ethoxyethyl
4787	benzyl	"4-(N,N-dimethylamino)phenylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4788	1-pyrolylmethyl	benzyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4789	1-pyrazolylmethyl	1-pyrolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4790	1-imidazolylmethyl	1-pyrazolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4791	1-indolylmethyl	1-imidazolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4792	1-triazolylmethyl	1-indolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4793	1-tetrazolylmethyl	1-triazolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4794	2-pyridylmethyl	1-tetrazolylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4795	3-pyridylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4796	4-pyridylmethyl	3-pyridylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4797	cyclohexylmethyl	4-pyridylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl

Table 6

4798	2-naphthylmethy 1	cyclohexylmet hyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4799	3-naphthylmethy 1	2-naphthylmethy 1	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4800	2-thiophenylmet hyl	3-naphthylmethy 1	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4801	4-(1-methyl)piperi diny1-methyl	2-thiophenylmet hyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4802	"(3,4-methylenediox yphenyl)methy 1"	4-(1-methyl)piperi diny1-methyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4803	2-thienylmethy1	"(3,4-methylenediox yphenyl)methy 1"	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4804	4-biphenylmethy 1	2-thienylmethy1	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4805	pyrimidinylme thyl	4-biphenylmethy 1	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4806	2-benzothiazoly lmethyl	pyrimidinylme thyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4807	2-benzothiophen ylmethy1	2-benzothiazoly lmethyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4808	2-thiomethyleth yl	2-benzothiophen ylmethy1	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4809	2-thiomethylmet hyl	2-thiomethyleth yl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4810	2-methylpropyl	2-thiomethylmet hyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4811	2-methylbutyl	2-methylpropyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4812	3-methylbutyl	2-methylbutyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4813	cyclopropylme thyl	3-methylbutyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4814	cyclobutylmet hyl	cyclopropylme thyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl
4815	cyclopentylme thyl	cyclobutylmet hyl	2-(1-imidazolyl)et hyl	2-(1-pyrolyl)ethyl

Table 6

4816	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4817	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4818	p-aminophenyl-methyl	p-nitrophenylmethyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4819	"4-(N,N-dimethylamino)phenylmethyl	p-aminophenyl-methyl	2-(1-imidazolyl)ethyl	2-(1-pyrolyl)ethyl
4820	benzyl	"4-(N,N-dimethylamino)phenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4821	1-pyrolylmethyl	benzyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4822	1-pyrazolylmethyl	1-pyrolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4823	1-imidazolylmethyl	1-pyrazolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4824	1-indolylmethyl	1-imidazolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4825	1-triazolylmethyl	1-indolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4826	1-tetrazolylmethyl	1-triazolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4827	2-pyridylmethyl	1-tetrazolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4828	3-pyridylmethyl	2-pyridylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4829	4-pyridylmethyl	3-pyridylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4830	cyclohexylmethyl	4-pyridylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4831	2-naphthylmethyl	cyclohexylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4832	3-naphthylmethyl	2-naphthylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4833	2-thiophenylmethyl	3-naphthylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl

Table 6

4834	4-(1-methyl)piperidinyl-methyl	2-thiophenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4835	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinyl-methyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4836	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4837	4-biphenylmethyl	2-thienylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4838	pyrimidinylmethyl	4-biphenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4839	2-benzothiazolylmethyl	pyrimidinylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4840	2-benzothiophenylmethyl	2-benzothiazolylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4841	2-thiomethylethyl	2-benzothiophenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4842	2-thiomethylmethyl	2-thiomethylethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4843	2-methylpropyl	2-thiomethylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4844	2-methylbutyl	2-methylpropyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4845	3-methylbutyl	2-methylbutyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4846	cyclopropylmethyl	3-methylbutyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4847	cyclobutylmethyl	cyclopropylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4848	cyclopentylmethyl	cyclobutylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4849	p-hydroxyphenyl-methyl	cyclopentylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4850	p-nitrophenylmethyl	p-hydroxyphenyl-methyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4851	p-aminophenyl-methyl	p-nitrophenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl

Table 6

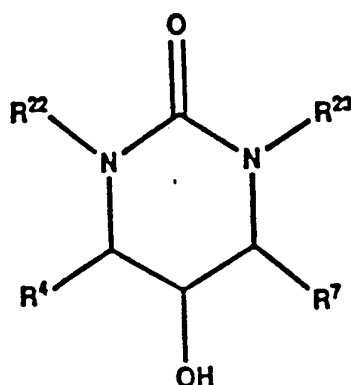
4852	"4-(N,N-dimethylamino)phenylmethyl"	P-aminophenylmethyl	2-pyridylmethyl	2-(1-imidazolyl)ethyl
4853	benzyl	"4-(N,N-dimethylamino)phenylmethyl"	2-thiomethylethyl	2-pyridylmethyl
4854	1-pyrololmethyl	benzyl	2-thiomethylethyl	2-pyridylmethyl
4855	1-pyrazolylmethyl	1-pyrololmethyl	2-thiomethylethyl	2-pyridylmethyl
4856	1-imidazolylmethyl	1-pyrazolylmethyl	2-thiomethylethyl	2-pyridylmethyl
4857	1-indolylmethyl	1-imidazolylmethyl	2-thiomethylethyl	2-pyridylmethyl
4858	1-triazolylmethyl	1-indolylmethyl	2-thiomethylethyl	2-pyridylmethyl
4859	1-tetrazolylmethyl	1-triazolylmethyl	2-thiomethylethyl	2-pyridylmethyl
4860	2-pyridylmethyl	1-tetrazolylmethyl	2-thiomethylethyl	2-pyridylmethyl
4861	3-pyridylmethyl	2-pyridylmethyl	2-thiomethylethyl	2-pyridylmethyl
4862	4-pyridylmethyl	3-pyridylmethyl	2-thiomethylethyl	2-pyridylmethyl
4863	cyclohexylmethyl	4-pyridylmethyl	2-thiomethylethyl	2-pyridylmethyl
4864	2-naphthylmethyl	cyclohexylmethyl	2-thiomethylethyl	2-pyridylmethyl
4865	3-naphthylmethyl	2-naphthylmethyl	2-thiomethylethyl	2-pyridylmethyl
4866	2-thiophenylmethyl	3-naphthylmethyl	2-thiomethylethyl	2-pyridylmethyl
4867	4-(1-methyl)piperidinylmethyl	2-thiophenylmethyl	2-thiomethylethyl	2-pyridylmethyl
4868	"(3,4-methylenedioxyphenyl)methyl"	4-(1-methyl)piperidinylmethyl	2-thiomethylethyl	2-pyridylmethyl

Table 6

4869	2- thienylmethyl	"(3,4- methylenedioxyphenyl)methyl"	2- thiomethylethyl	2- pyridylmethyl
4870	4- biphenylmethyl	2- thienylmethyl	2- thiomethylethyl	2- pyridylmethyl
4871	pyrimidinylmethyl	4- biphenylmethyl	2- thiomethylethyl	2- pyridylmethyl
4872	2- benzothiazolylmethyl	pyrimidinylmethyl	2- thiomethylethyl	2- pyridylmethyl
4873	2- benzothiophenylmethyl	2- benzothiazolylmethyl	2- thiomethylethyl	2- pyridylmethyl
4874	2- thiomethylethyl	2- benzothiophenylmethyl	2- thiomethylethyl	2- pyridylmethyl
4875	2- thiomethylmethyl	2- thiomethylethyl	2- thiomethylethyl	2- pyridylmethyl
4876	2- methylpropyl	2- thiomethylmethyl	2- thiomethylethyl	2- pyridylmethyl
4877	2-methylbutyl	2- methylpropyl	2- thiomethylethyl	2- pyridylmethyl
4878	3-methylbutyl	2-methylbutyl	2- thiomethylethyl	2- pyridylmethyl
4879	cyclopropylmethyl	3-methylbutyl	2- thiomethylethyl	2- pyridylmethyl
4880	cyclobutylmethyl	cyclopropylmethyl	2- thiomethylethyl	2- pyridylmethyl
4881	cyclopentylmethyl	cyclobutylmethyl	2- thiomethylethyl	2- pyridylmethyl
4882	p- hydroxyphenylmethyl	cyclopentylmethyl	2- thiomethylethyl	2- pyridylmethyl
4883	p- nitrophenylmethyl	p- hydroxyphenylmethyl	2- thiomethylethyl	2- pyridylmethyl
4884	p- aminophenylmethyl	p- nitrophenylmethyl	2- thiomethylethyl	2- pyridylmethyl
4885	"4-(N,N-dimethylamino)phenylmethyl"	p- aminophenylmethyl	2- thiomethylethyl	2- pyridylmethyl

Table 7

TABLE 7



Example R4 Number	R7	R22	R23
4886	benzyl	benzyl	2-methallyl
4887	1-pyrrolylmethyl	1-pyrrolylmethyl	4-methylpentyl
4888	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl
4889	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl
4890	1-indolylmethyl	1-indolylmethyl	3-methylpentyl
4891	2-pyridylmethyl	2-pyridylmethyl	3-pentyl
4892	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
4893	4-pyridylmethyl	4-pyridylmethyl	"3,3-dimethallyl"
4894	cyclohexylmethyl	cyclohexylmethyl	"3,3-dimethylbutyl"
4895	2-thiophenylmethyl	2-thiophenylmethyl	allyl
4896	"(3,4-methylene-dioxyphenyl)" methyl	benzyl	2-methallyl
4897	"(3,4-methylene-dioxyphenyl)" methyl	cyclopropylmethyl	2-methallyl
4898	methyl	cyclobutylmethyl	2-methallyl
4899	2-thienylmethyl	cyclopropylmethyl	cyclopropylmethyl
4900	4-biphenylmethyl	isobutyl	isobutyl
4901	2-thiomethylethyl	n-butyl	n-butyl
4902	p-hydroxyphenylmethyl	n-pentyl	n-pentyl
4903	p-nitrophenylmethyl	propyl	propyl
4904	benzyl	2-methallyl	H
4905	1-pyrrolylmethyl	4-methylpentyl	H

Table 7

4906	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	H
4907	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	H
4908	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
4909	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
4910	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
4911	4-pyridylmethyl	4-pyridylmethyl	"3,3-dimethallyl"	H
4912	cyclohexylmethyl	cyclohexylmethyl	"3,3-dimethylbutyl"	H
4913	2-thiophenylmethyl	2-thiophenylmethyl	allyl	H
4914	"(3,4-methylenedioxyphenyl)" methyl	2-thiophenylmethyl	allyl	H
4915	methyl	"(3,4-methylene-dioxyphenyl)" methyl	allyl	H
4916	2-thienylmethyl	cyclobutylmethyl	H	H
4917		2-thienylmethyl	cyclopropyl-methyl	H
4918	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
4919	2-thiomethylethyl	2-n-butyl	n-butyl	
4920	p-hydroxyphenyl-methyl	p-hydroxyphenyl-methyl	n-pentyl	H
4921	p-nitrophenylmethy l	p-nitrophenyl-methyl	propyl	H
4922	benzyl	p-nitrophenyl-methyl	2-methallyl	2-methallyl
4923	1-pyrollylmethyl	benzyl	4-methylpentyl	4-methylpentyl
4924	1-pyrazolylmethyl	1-pyrollylmethyl	3-methallyl	3-methallyl
4925	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
4926	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylpentyl
4927	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
4928	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
4929	4-pyridylmethyl	3-pyridylmethyl	"3,3-dimethallyl"	"3,3-dimethallyl"
4930	cyclohexylmethyl	4-pyridylmethyl	"3,3-dimethylbutyl"	"3,3-dimethylbutyl"
4931	2-thiophenylmethyl	cyclohexylmethyl	allyl	allyl
4932	"(3,4-methylene-dioxyphenyl)" methyl	cyclohexylmethyl	allyl	allyl
4933		2-thiophenylmethyl	cyclobutylmethyl	cyclobutyl-methyl
4934	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)" methyl	cyclobutylmethyl	cyclobutyl-methyl
4935	methyl	cyclopropyl-methyl	cyclopropyl-methyl	
4936	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
4937	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl

Table 7

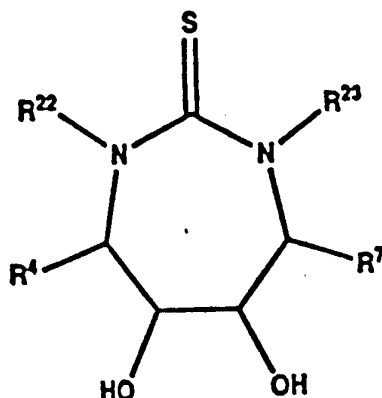
4938	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
4939	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
4940	benzyl	p-nitrophenylmethyl	2-methallyl	2-methallyl
4941	1-pyrololmethyl	benzyl	4-methylpentyl	4-methylpentyl
4942	1-pyrazololmethyl	1-pyrololmethyl	3-methallyl	3-methallyl
4943	1-imidazololmethyl	1-pyrazololmethyl	3-methylbutyl	3-methylbutyl
4944	1-indololmethyl	1-imidazololmethyl	3-methylpentyl	3-methylpentyl
4945	2-pyridolmethyl	1-indololmethyl	3-pentyl	3-pentyl
4946	3-pyridolmethyl	2-pyridolmethyl	4-methylpentyl	4-methylpentyl
4947	4-pyridolmethyl	3-pyridolmethyl	"3,3-dimethallyl"	"3,3-dimethallyl"
4948	cyclohexolmethyl	4-pyridolmethyl	"3,3-dimethylbutyl"	"3,3-dimethylbutyl"
4949	2-thiophenolmethyl	cyclohexolmethyl	allyl	allyl
4950	"(3,4-methylene-dioxyphenyl)" methyl	4-pyridolmethyl	"3,3-dimethylbutyl"	"3,3-dimethylbutyl"
4951		2-thiophenolmethyl	cyclobutylmethyl	cyclobutylmethyl
4952	2-thienolmethyl	"(3,4-methylene-dioxy-phenyl)" methyl	cyclobutylmethyl	cyclobutylmethyl
4953	methyl	cyclopropylmethyl	cyclopropylmethyl	isobutyl
4954	4-biphenolmethyl	2-thienolmethyl	isobutyl	isobutyl
4955	2-thiomethylethyl	4-biphenolmethyl	n-butyl	n-butyl
4956	p-hydroxyphenolmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
4957	p-nitrophenolmethyl	p-hydroxyphenolmethyl	propyl	propyl
4958	benzyl	p-nitrophenolmethyl	2-methallyl	propyl
4959	1-pyrololmethyl	benzyl	4-methylpentyl	2-methallyl
4960	1-pyrazololmethyl	1-pyrololmethyl	3-methallyl	4-methylpentyl
4961	1-imidazololmethyl	1-pyrazololmethyl	3-methylbutyl	3-methallyl
4962	1-indololmethyl	1-imidazololmethyl	3-methylpentyl	3-methylbutyl
4963	2-pyridolmethyl	1-indololmethyl	3-pentyl	3-methylpentyl
4964	3-pyridolmethyl	2-pyridolmethyl	4-methylpentyl	3-pentyl
4965	4-pyridolmethyl	3-pyridolmethyl	"3,3-dimethallyl"	4-methylpentyl
4966	cyclohexolmethyl	4-pyridolmethyl	"3,3-dimethylbutyl"	"3,3-dimethallyl"
4967	2-thiophenolmethyl	cyclohexolmethyl	allyl	"3,3-dimethylbutyl"
4968	"(3,4-methylene-dioxyphenyl)" methyl	cyclohexolmethyl	allyl	"3,3-dimethylbutyl"

Table 7

4969	methyl	2-thiophenylmethyl	cyclobutylmethyl	allyl
4970	2-thienylmethyl	"(3,4-methylene-dioxyphenyl)"	cyclobutylmethyl	allyl
4971	methyl	cyclopropylmethyl	cyclobutylmethyl	allyl
4972	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropyl-methyl
4973	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
4974	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-butyl
4975	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	n-pentyl
4975A	benzyl	benzyl	cyclopropyl-methyl	N,N-dimethyl-aminoethyl

Table 8

TABLE 8



Example Number	R1	R22	R23
4976	benzyl	benzyl	2-methallyl
4977	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl
4978	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl
4979	1-imidazolyl-methyl	1-imidazolyl-methyl	3-methylbutyl
4980	1-indolylmethyl	1-indolylmethyl	3-methylpentyl
4981	2-pyridylmethyl	2-pyridylmethyl	3-pentyl
4982	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
4983	4-pyridylmethyl	4-pyridylmethyl	"3,3-dimethallyl"
4984	cyclohexyl-methyl	cyclohexylmethy	"3,3-dimethylbutyl"
4985	2-thiophenyl-methyl	2-thiophenylmethy	allyl
4986	"(3,4-methylene-dioxy-phenyl)-methyl"	"(3,4-methylene-dioxyphenyl)-methyl"	cyclobutyl-methyl
4987	2-thienylmethyl	2-thienylmethyl	cyclopropyl-methyl
4988	4-biphenylmethyl	4-biphenylmethyl	isobutyl
4989	2-thiomethylethyl	2-thiomethylethyl	n-butyl
4990	p-hydroxy-phenylmethyl	p-hydroxy-phenyl-methyl	n-pentyl
4991	p-nitrophenyl-methyl	p-nitrophenyl-methyl	propyl

Table 8

4992	benzyl	benzyl	2-methallyl	H
4993	1-pyrololmethyl	1-pyrololmethyl	4-methylpentyl	H
4994	1-pyrazololmethyl	1-pyrazololmethyl	3-methallyl	H
4995	1-imidazolyl-methyl	1-imidazolyl-methyl	3-methylbutyl	H
4996	1-indololmethyl	1-indololmethyl	3-methylpentyl	H
4997	2-pyridolmethyl	2-pyridolmethyl	3-pentyl	H
4998	3-pyridolmethyl	3-pyridolmethyl	4-methylpentyl	H
4999	4-pyridolmethyl	4-pyridolmethyl	"3,3-dimethallyl"	H
5000	cyclohexyl-methyl	cyclohexyl-methyl	"3,3-dimethylbutyl"	H
5001	2-thiophenyl-methyl	2-thiophenyl-methyl	allyl	H
5002	"(3,4-methylenedioxyphenyl)methyl"	"(3,4-methylenedioxyphenyl)methyl"	cyclobutyl-methyl	H
5003	2-thienylmethyl	2-thienylmethyl	cyclopropyl-methyl	H
5004	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
5005	2-thiomethylethyl	2-thiomethylethyl	n-butyl	
5006	p-hydroxyphenyl-methyl	p-hydroxyphenyl-methyl	n-pentyl	H
5007	p-nitrophenyl-methyl	p-nitrophenyl-methyl	propyl	H
5008	benzyl	p-nitrophenyl-methyl	2-methallyl	2-methallyl
5009	1-pyrololmethyl	benzyl	4-methylpentyl	4-methylpentyl
5010	1-pyrazololmethyl	1-pyrololmethyl	3-methallyl	3-methallyl
5011	1-imidazolyl-methyl	1-pyrazololmethyl	3-methylbutyl	3-methylbutyl
5012	1-indololmethyl	1-imidazololmethyl	3-methylpentyl	3-methylpentyl
5013	2-pyridolmethyl	1-indololmethyl	3-pentyl	3-pentyl
5014	3-pyridolmethyl	2-pyridolmethyl	4-methylpentyl	4-methylpentyl
5015	4-pyridolmethyl	3-pyridolmethyl	"3,3-dimethallyl"	"3,3-dimethallyl"
5016	cyclohexylmethy	4-pyridolmethyl	"3,3-dimethylbutyl"	"3,3-dimethylbutyl"
5017	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	allyl
5018	"(3,4-methylenedioxyphenyl)methyl"	2-thiophenyl-methyl	cyclobutylmethy	cyclobutylmethy
5019	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	yl	yl
5020	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5021	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl

Table 8

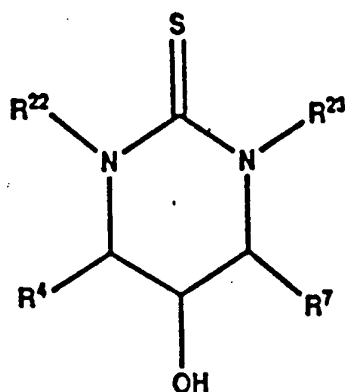
5022	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl
5023	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	propyl
5024	benzyl	p-nitrophenyl-methyl	2-methallyl	2-methallyl
5025	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5026	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5027	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5028	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylpentyl
5029	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5030	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5031	4-pyridylmethyl	3-pyridylmethyl	"3,3-dimethallyl"	"3,3-dimethallyl"
5032	cyclohexylmethy l	4-pyridylmethyl	"3,3-dimethylbutyl"	"3,3-dimethylbutyl"
5033	2-thiophenyl-methyl	cyclohexylmethy l	allyl	allyl
5034	"(3,4-methylenedioxyphenyl)methyl"	2-thiophenylmethy l	cyclobutylmethy l	cyclobutylmethy l
5035	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropyl-methyl	cyclopropyl-methyl
5036	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5037	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5038	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl
5039	p-nitrophenyl-methyl	p-hydroxyphenylme thyl	propyl	propyl
5040	benzyl	p-nitrophenyl-methyl	2-methallyl	propyl
5041	1-pyrolylmethyl	benzyl	4-methylpentyl	2-methallyl
5042	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	4-methylpentyl
5043	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5044	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylbutyl
5045	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5046	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5047	4-pyridylmethyl	3-pyridylmethyl	"3,3-dimethallyl"	4-methylpentyl
5048	cyclohexylmethy l	4-pyridylmethyl	"3,3-dimethylbutyl"	"3,3-dimethallyl"
5049	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	"3,3-dimethylbutyl"

Table 8

5050	"(3,4-methylenedioxyphenyl)methyl"	2-thiophenylmethyl	cyclobutylmethyl	allyl
5051	2-thienylmethyl	"(3,4-methylenedioxyphenyl)methyl"	cyclopropylmethyl	cyclobutylmethyl
5052	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropylmethyl
5053	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
5054	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-butyl
5055	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	n-pentyl

Table 9

TABLE 9



<u>Example R4</u> <u>Number</u>	<u>R7</u>	<u>R22</u>	<u>R23</u>
5056	benzyl	benzyl	2-methallyl
5057	1-pyrololmethyl	1-pyrololmethyl	4-methylpentyl
5058	1-pyrazololmethyl	1-pyrazololmethyl	3-methallyl
5059	1-imidazololmethyl	1-imidazololmethyl	3-methylbutyl
5060	1-indololmethyl	1-indololmethyl	3-methylpentyl
5061	2-pyridololmethyl	2-pyridololmethyl	3-pentyl
5062	3-pyridololmethyl	3-pyridololmethyl	4-methylpentyl
5063	4-pyridololmethyl	4-pyridololmethyl	3,3-dimethallyl
5064	cyclohexololmethyl	cyclohexololmethyl	3,3-dimethylbutyl
5065	2-thiophenololmethyl	2-thiophenololmethyl	allyl
5066	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl
5067	2-thienololmethyl	2-thienololmethyl	cyclopropylmethyl
5068	4-biphenololmethyl	4-biphenololmethyl	isobutyl
5069	2-thiomethylethyl	2-thiomethylethyl	n-butyl
5070	p-hydroxyphenololmethyl	p-hydroxyphenololmethyl	n-pentyl

Table 9

	p-	p-	propyl	propyl
5071	nitrophenylmeth yl	nitrophenylmeth yl		
5072	benzyl	benzyl	2-methallyl	H
5073	1-pyrollylmethyl	1-pyrollylmethyl	4-methylpentyl	H
5074	1- pyrazolylmethyl	1- pyrazolylmethyl	3-methallyl	H
5075	1- imidazolylmethy l	1- imidazolylmethy l	3-methylbutyl	H
5076	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
5077	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
5078	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
5079	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	H
5080	cyclohexylmethy l	cyclohexylmethy l	3,3- dimethylbutyl	H
5081	2- thiophenylmethy l	2- thiophenylmethy l	allyl	H
5082	(3,4- methylenedioxy phenyl)methyl	(3,4- methylenedioxy phenyl)methyl	cyclobutylmethy l	H
5083	2-thienylmethyl	2-thienylmethyl	cyclopropylmeth yl	H
5084	4- biphenylmethyl	4- biphenylmethyl	isobutyl	H
5085	2- thiomethylethyl	2- thiomethylethyl	n-butyl	
5086	p- hydroxyphenylme thyl	p- hydroxyphenylme thyl	n-pentyl	H
5087	p- nitrophenylmeth yl	p- nitrophenylmeth yl	propyl	H
5088	benzyl	p- nitrophenylmeth yl	2-methallyl	2-methallyl
5089	1-pyrollylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5090	1- pyrazolylmethyl	1-pyrollylmethyl	3-methallyl	3-methallyl
5091	1- imidazolylmethy l	1- pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5092	1-indolylmethyl	1- imidazolylmethy l	3-methylpentyl	3-methylpentyl
5093	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5094	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5095	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5096	cyclohexylmethy l	4-pyridylmethyl	3,3- dimethylbutyl	3,3- dimethylbutyl
5097	2- thiophenylmethy l	cyclohexylmethy l	allyl	allyl

Table 9

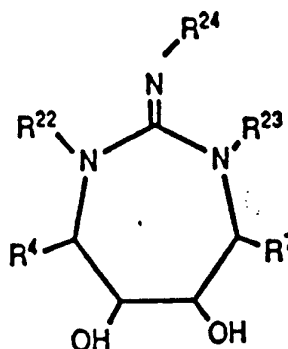
5098	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5099	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5100	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5101	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5102	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5103	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5104	benzyl	p-nitrophenylmethyl	2-methylallyl	2-methylallyl
5105	1-pyrrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5106	1-pyrazolylmethyl	1-pyrrolylmethyl	3-methylallyl	3-methylallyl
5107	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5108	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylpentyl
5109	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5110	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5111	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl	3,3-dimethylallyl
5112	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5113	2-thiophenylmethyl	cyclohexylmethyl	allyl	allyl
5114	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5115	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5116	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5117	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5118	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5119	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5120	benzyl	p-nitrophenylmethyl	2-methylallyl	propyl
5121	1-pyrrolylmethyl	benzyl	4-methylpentyl	2-methylallyl

Table 9

5122	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	4-methylpentyl
5123	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5124	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylbutyl
5125	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5126	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5127	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	4-methylpentyl
5128	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethallyl
5129	2-thiophenylmethyl	cyclohexylmethyl	allyl	3,3-dimethylbutyl
5130	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	allyl
5131	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclobutylmethyl
5132	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropylmethyl
5133	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
5134	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-butyl
5135	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	n-pentyl

Table 10

TABLE 10



$R^{24} = H, CH_3, \text{ or } C_2H_5$

Example Number	R ₄	R ₇	R ₂₂	R ₂₃
5136	benzyl	benzyl	2-methallyl	2-methallyl
5137	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl	4-methylpentyl
5138	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	3-methallyl
5139	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	3-methylbutyl
5140	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	3-methylpentyl
5141	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	3-pentyl
5142	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	4-methylpentyl
5143	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5144	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5145	2-thiophenylmethyl	2-thiophenylmethyl	allyl	allyl
5146	(3,4-methylenedioxyphenyl)methyl	(3,4-methylene-dioxyphenyl)methyl	cyclobutylmethyl	cyclobutylmethyl
5147	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl	cyclopropylmethyl
5148	4-biphenylmethyl	4-biphenylmethyl	isobutyl	isobutyl
5149	2-thiomethylethyl	2-thiomethyl-ethyl	n-butyl	n-butyl
5150	p-hydroxyphenyl-methyl	p-hydroxyphenyl-methyl	n-pentyl	n-pentyl
5151	p-nitrophenyl-methyl	p-nitrophenyl-methyl	propyl	propyl
5152	benzyl	benzyl	2-methallyl	H
5153	1-pyrollylmethyl	1-pyrollylmethyl	4-methylpentyl	H
5154	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	H

Table 10

5155	1-imidazolyl-methyl	1-imidazolyl-methyl	3-methylbutyl	H
5156	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
5157	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
5158	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
5159	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethylallyl	H
5160	cyclohexyl-methyl	cyclohexyl-methyl	3,3-dimethylbutyl	H
5161	2-thiophenyl-methyl	2-thiophenyl-methyl	allyl	H
5162	(3,4-methylene-dioxyphenyl)-methyl	(3,4-methylene-dioxyphenyl)-methyl	cyclobutyl-methyl	H
5163	2-thienylmethyl	2-thienylmethyl	cyclopropyl-methyl	H
5164	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
5165	2-thiomethylethyl	2-thiomethylethyl	n-butyl	
5166	p-hydroxyphenyl-methyl	p-hydroxyphenyl-methyl	n-pentyl	H
5167	p-nitrophenyl-methyl	p-nitrophenyl-methyl	propyl	H
5168	benzyl	p-nitrophenyl-methyl	2-methylallyl	2-methylallyl
5169	1-pyrollylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5170	1-pyrazolylmethyl	1-pyrollyl-methyl	3-methylallyl	3-methylallyl
5171	1-imidazolylmethy l	1-pyrazolyl-methyl	3-methylbutyl	3-methylbutyl
5172	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylpentyl
5173	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5174	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5175	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl	3,3-dimethylallyl
5176	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5177	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	allyl
5178	(3,4-methylenedioxyphenyl)methyl	2-thiophenyl-methyl	cyclobutylmethy l	cyclobutylmethy l
5179	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmeth yl	cyclopropylmeth yl
5180	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5181	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5182	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl

Table 10

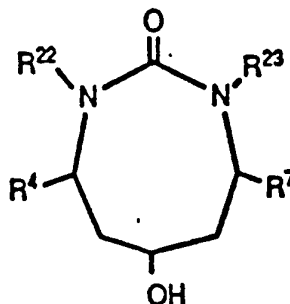
5183	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	propyl
5184	benzyl	p-nitrophenyl-methyl	2-methallyl	2-methallyl
5185	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5186	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5187	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5188	1-indolylmethyl	1-imidazolylmethy l	3-methylpentyl	3-methylpentyl
5189	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5190	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5191	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5192	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5193	2-thiophenyl-methyl	cyclohexyl-methyl	allyl-	allyl
5194	(3,4-methylenedioxy-phenyl)methyl	2-thiophenyl-methyl	cyclobutylmethy l	cyclobutyl-methyl
5195	2-thienylmethyl	(3,4-methylenedioxy-phenyl)methyl	cyclopropyl-methyl	cyclopropyl-methyl
5196	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5197	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5198	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl
5199	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	propyl
5200	benzyl	p-nitrophenyl-methyl	2-methallyl	propyl
5201	1-pyrolylmethyl	benzyl	4-methylpentyl	2-methallyl
5202	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	4-methylpentyl
5203	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5204	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylbutyl
5205	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5206	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5207	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	4-methylpentyl
5208	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethallyl
5209	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	3,3-dimethylbutyl
5210	(3,4-methylenedioxyphenyl)methyl	2-thiophenyl-methyl	cyclobutylmethy l	allyl

Table 10

5211	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclobutylmethyl
5212	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropylmethyl
5213	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
5214	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-butyl
5215	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	n-pentyl

Table 11

Table 11



Example Number	R ₄	R ₇	R ₂₂	R ₂₃
5216	benzyl	benzyl	2-methallyl	2-methallyl
5217	1-pyrrolylmethyl	1-pyrrolylmethyl	4-methylpentyl	4-methylpentyl
5218	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	3-methallyl
5219	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	3-methylbutyl
5220	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	3-methylpentyl
5221	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	3-pentyl
5222	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	4-methylpentyl
5223	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5224	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5225	2-thiophenylmethyl	2-thiophenylmethyl	allyl	allyl
5226	(3,4-methylene-dioxyphenyl)methyl	(3,4-methylene-dioxyphenyl)methyl	cyclobutylmethyl	cyclobutylmethyl
5227	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl	cyclopropylmethyl
5228	4-biphenylmethyl	4-biphenylmethyl	isobutyl	isobutyl
5229	2-thiomethylethyl	2-thiomethylethyl	n-butyl	n-butyl
5230	p-hydroxyphenylmethyl	p-hydroxyphenylmethyl	n-pentyl	n-pentyl
5231	p-nitrophenylmethyl	p-nitrophenylmethyl	propyl	propyl
5232	benzyl	benzyl	2-methallyl	H
5233	1-pyrrolylmethyl	1-pyrrolylmethyl	4-methylpentyl	H
5234	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	H
5235	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	H

Table 11

5236	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
5237	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
5238	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
5239	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethylallyl	H
5240	cyclohexyl-methyl	cyclohexyl-methyl	3,3-dimethylbutyl	H
5241	2-thiophenyl-methyl	2-thiophenyl-methyl	allyl	H
5242	(3,4-methylene-dioxyphenyl)-methyl	(3,4-methylene-dioxyphenyl)-methyl	cyclobutyl-methyl	H
5243	2-thienylmethyl	2-thienylmethyl	cyclopropyl-methyl	H
5244	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
5245	2-thiomethylethyl	2-thiomethylethyl	n-butyl	
5246	p-hydroxyphenyl-methyl	p-hydroxyphenyl-methyl	n-pentyl	H
5247	p-nitrophenyl-methyl	p-nitrophenyl-methyl	propyl	H
5248	benzyl	p-nitrophenyl-methyl	2-methylallyl	2-methylallyl
5249	1-pyrollylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5250	1-pyrazolylmethyl	1-pyrollylmethyl	3-methylallyl	3-methylallyl
5251	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5252	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylpentyl
5253	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5254	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5255	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl	3,3-dimethylallyl
5256	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5257	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	allyl
5258	(3,4-methylenedioxyphenyl)methyl	2-thiophenyl-methyl	cyclobutyl-methyl	cyclobutyl-methyl
5259	2-thienylmethyl	(3,4-methylene-dioxyphenyl)-methyl	cyclopropyl-methyl	cyclopropyl-methyl
5260	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5261	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5262	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl
5263	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	propyl
5264	benzyl	p-nitrophenyl-methyl	2-methylallyl	2-methylallyl

Table 11

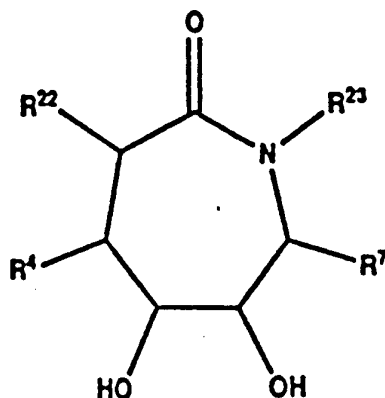
5265	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5266	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5267	1-imidazolyl-methyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5268	1-indolylmethyl	1-imidazolylmethy l	3-methylpentyl	3-methylpentyl
5269	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5270	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5271	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5272	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5273	2-thiophenyl-methyl	cyclohexy- lmethyl	allyl	allyl
5274	(3,4-methylenedioxyphenyl)methyl	2-thiophenyl-methyl	cyclobutyl-methyl	cyclobutyl-methyl
5275	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropyl-methyl	cyclopropyl-methyl
5276	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5277	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5278	p-hydroxyphenyl-methyl	2-thiomethylethyl	n-pentyl	n-pentyl
5279	p-nitrophenyl-methyl	p-hydroxyphenyl-methyl	propyl	propyl
5280	benzyl	p-nitrophenyl-methyl	2-methallyl	propyl
5281	1-pyrolylmethyl	benzyl	4-methylpentyl	2-methallyl
5282	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	4-methylpentyl
5283	1-imidazolylmethy l	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5284	1-indolylmethyl	1-imidazolyl-methyl	3-methylpentyl	3-methylbutyl
5285	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5286	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5287	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	4-methylpentyl
5288	cyclohexyl-methyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethallyl
5289	2-thiophenyl-methyl	cyclohexyl-methyl	allyl	3,3-dimethylbutyl
5290	(3,4-methylenedioxyphenyl)methyl	2-thiophenyl-methyl	cyclobutylmethy l	allyl
5291	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropyl-methyl	cyclobutyl-methyl
5292	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropyl-methyl

Table 11

5293	2- thiomethylethyl	4- biphenylmethyl	n-butyl	isobutyl
5294	p- hydroxyphenyl- methyl	2- thiomethylethyl	n-pentyl	n-butyl
5295	p-nitrophenyl- methyl	p-- hydroxyphenylme thyl	propyl	n-pentyl

Table 12

TABLE 12



<u>Example</u> <u>Number</u>	<u>R4</u>	<u>R7</u>	<u>R22</u>	<u>R23</u>
5296	benzyl	benzyl	2-methallyl	2-methallyl
5297	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl	4-methylpentyl
5298	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	3-methallyl
5299	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	3-methylbutyl
5300	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	3-methylpentyl
5301	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	3-pentyl
5302	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	4-methylpentyl
5303	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5304	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5305	2-thiophenylmethyl	2-thiophenylmethyl	allyl	allyl
5306	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl	cyclobutylmethyl
5307	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl	cyclopropylmethyl
5308	4-biphenylmethyl	4-biphenylmethyl	isobutyl	isobutyl
5309	2-thiomethylethyl	2-thiomethylethyl	n-butyl	n-butyl
5310	p-hydroxyphenylmethyl	p-hydroxyphenylmethyl	n-pentyl	n-pentyl

Table 12

			propyl	propyl
5311	p-nitrophenylmethyl	p-nitrophenylmethyl		
5312	benzyl	benzyl	2-methallyl	H
5313	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl	H
5314	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	H
5315	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl	H
5316	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
5317	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
5318	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
5319	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	H
5320	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl	H
5321	2-thiophenylmethyl	2-thiophenylmethyl	allyl	H
5322	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl	H
5323	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl	H
5324	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
5325	2-thiomethylethyl	2-thiomethylethyl	n-butyl	
5326	p-hydroxyphenylmethyl	p-hydroxyphenylmethyl	n-pentyl	H
5327	p-nitrophenylmethyl	p-nitrophenylmethyl	propyl	H
5328	benzyl	p-nitrophenylmethyl	2-methallyl	2-methallyl
5329	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5330	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5331	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5332	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylpentyl
5333	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5334	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5335	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5336	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5337	2-thiophenylmethyl	cyclohexylmethyl	allyl	allyl

Table 12

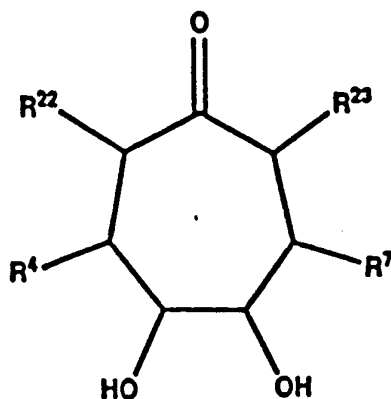
5338	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5339	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5340	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5341	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5342	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5343	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5344	benzyl	p-nitrophenylmethyl	2-methallyl	2-methallyl
5345	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5346	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5347	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5348	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylpentyl
5349	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5350	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5351	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5352	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5353	2-thiophenylmethyl	cyclohexylmethyl	allyl	allyl
5354	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5355	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5356	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5357	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5358	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5359	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5360	benzyl	p-nitrophenylmethyl	2-methallyl	propyl
5361	1-pyrolylmethyl	benzyl	4-methylpentyl	2-methallyl

Table 12

5362	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	4-methylpentyl
5363	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5364	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylbutyl
5365	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5366	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5367	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	4-methylpentyl
5368	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethallyl
5369	2-thiophenylmethyl	cyclohexylmethyl	allyl	3,3-dimethylbutyl
5370	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	allyl
5371	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclobutylmethyl
5372	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropylmethyl
5373	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
5374	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-butyl
5375	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	n-pentyl

Table 13

TABLE 13



<u>Example</u>	<u>R4</u>	<u>R7</u>	<u>R22</u>	<u>R23</u>
5376	benzyl	benzyl	2-methallyl	2-methallyl
5377	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl	4-methylpentyl
5378	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	3-methallyl
5379	1-imidazolylmethy	1-imidazolylmethy	3-methylbutyl	3-methylbutyl
5380	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	3-methylpentyl
5381	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	3-pentyl
5382	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	4-methylpentyl
5383	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5384	cyclohexylmethy	cyclohexylmethy	3,3-dimethylbutyl	3,3-dimethylbutyl
5385	2-thiophenylmethy	2-thiophenylmethy	allyl	allyl
5386	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethy	cyclobutylmethy
5387	2-thienylmethyl	2-thienylmethyl	cyclopropylmethy	cyclopropylmethy
5388	4-biphenylmethyl	4-biphenylmethyl	yl isobutyl	yl isobutyl
5389	2-thiomethylethyl	2-thiomethylethyl	n-butyl	n-butyl
5390	p-hydroxyphenylme	p-hydroxyphenylme	n-pentyl	n-pentyl
	thyl	thyl		

Table 13

5391	p-nitrophenylmeth yl	p-nitrophenylmeth yl	propyl	propyl
5392	benzyl	benzyl	2-methallyl	H
5393	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl	H
5394	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	H
5395	1-imidazolylmethy l	1-imidazolylmethy l	3-methylbutyl	H
5396	1-indolylmethyl	1-indolylmethyl	3-methylpentyl	H
5397	2-pyridylmethyl	2-pyridylmethyl	3-pentyl	H
5398	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl	H
5399	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl	H
5400	cyclohexylmethy l	cyclohexylmethy l	3,3-dimethylbutyl	H
5401	2-thiophenylmethy l	2-thiophenylmethy l	allyl	H
5402	(3,4-methylenedioxy phenyl)methyl	(3,4-methylenedioxy phenyl)methyl	cyclobutylmethy l	H
5403	2-thienylmethyl	2-thienylmethyl	cyclopropylmeth yl	H
5404	4-biphenylmethyl	4-biphenylmethyl	isobutyl	H
5405	2-thiomethylethyl	2-thiomethylethyl	n-butyl	
5406	p-hydroxyphenylme thyl	p-hydroxyphenylme thyl	n-pentyl	H
5407	p-nitrophenylmeth yl	p-nitrophenylmeth yl	propyl	H
5408	benzyl	p-nitrophenylmeth yl	2-methallyl	2-methallyl
5409	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5410	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5411	1-imidazolylmethy l	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5412	1-indolylmethyl	1-imidazolylmethy l	3-methylpentyl	3-methylpentyl
5413	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5414	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5415	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5416	cyclohexylmethy l	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5417	2-thiophenylmethy l	cyclohexylmethy l	allyl	allyl

Table 13

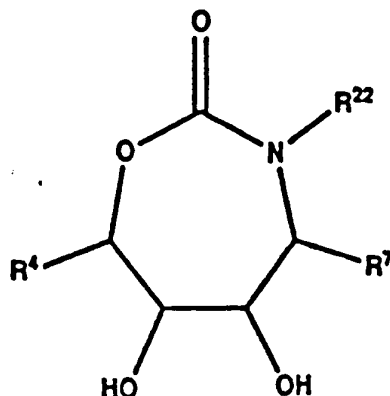
5418	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5419	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5420	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5421	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5422	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5423	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5424	benzyl	p-nitrophenylmethyl	2-methallyl	2-methallyl
5425	1-pyrolylmethyl	benzyl	4-methylpentyl	4-methylpentyl
5426	1-pyrazolylmethyl	1-pyrolylmethyl	3-methallyl	3-methallyl
5427	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methylbutyl
5428	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylpentyl
5429	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-pentyl
5430	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	4-methylpentyl
5431	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	3,3-dimethallyl
5432	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethylbutyl
5433	2-thiophenylmethyl	cyclohexylmethyl	allyl	allyl
5434	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	cyclobutylmethyl
5435	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclopropylmethyl
5436	4-biphenylmethyl	2-thienylmethyl	isobutyl	isobutyl
5437	2-thiomethylethyl	4-biphenylmethyl	n-butyl	n-butyl
5438	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-pentyl
5439	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	propyl
5440	benzyl	p-nitrophenylmethyl	2-methallyl	propyl
5441	1-pyrolylmethyl	benzyl	4-methylpentyl	2-methallyl

Table 13

5442	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl	4-methylpentyl
5443	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl	3-methallyl
5444	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl	3-methylbutyl
5445	2-pyridylmethyl	1-indolylmethyl	3-pentyl	3-methylpentyl
5446	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl	3-pentyl
5447	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl	4-methylpentyl
5448	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl	3,3-dimethallyl
5449	2-thiophenylmethyl	cyclohexylmethyl	allyl	3,3-dimethylbutyl
5450	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl	allyl
5451	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl	cyclobutylmethyl
5452	4-biphenylmethyl	2-thienylmethyl	isobutyl	cyclopropylmethyl
5453	2-thiomethylethyl	4-biphenylmethyl	n-butyl	isobutyl
5454	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl	n-butyl
5455	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl	n-pentyl

Table 14

TABLE 14



Example R4 Number	R7	R22
5456	benzyl	2-methallyl
5457	1-pyrolylmethyl	4-methylpentyl
5458	1-pyrazolylmethyl	3-methallyl
5459	1-imidazolylmethyl	3-methylbutyl
5460	1-indolylmethyl	3-methylpentyl
5461	2-pyridylmethyl	3-pentyl
5462	3-pyridylmethyl	4-methylpentyl
5463	4-pyridylmethyl	3,3-dimethallyl
5464	cyclohexylmethyl	3,3-dimethylbutyl
5465	2-thiophenylmethyl	allyl
5466	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl
5467	2-thienylmethyl	cyclopropylmethyl
5468	4-biphenylmethyl	isobutyl
5469	2-thiomethylethyl	n-butyl
5470	p-hydroxyphenylmethyl	n-pentyl
5471	p-nitrophenylmethyl	propyl
5472	benzyl	2-methallyl
5473	1-pyrolylmethyl	4-methylpentyl
5474	1-pyrazolylmethyl	3-methallyl
5475	1-imidazolylmethyl	3-methylbutyl
5476	1-indolylmethyl	3-methylpentyl

Table 14

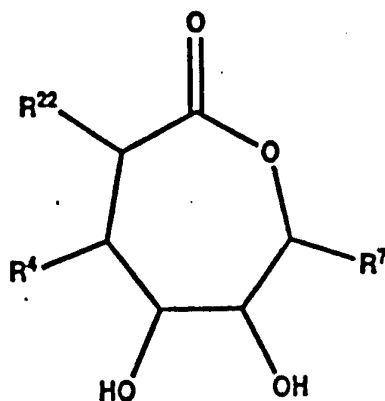
5477	2-pyridylmethyl	2-pyridylmethyl	3-pentyl
5478	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
5479	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl
5480	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl
5481	2-	2-	allyl
5482	thiophenylmethyl (3,4-	thiophenylmethyl (3,4-	cyclobutylmethyl
	methylenedioxyph nyl)methyl	methylenedioxyph nyl)methyl	
5483	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl
5484	4-biphenylmethyl	4-biphenylmethyl	isobutyl
5485	2-thiomethylethyl	2-thiomethylethyl	n-butyl
5486	p-	p-	n-pentyl
	hydroxyphenylmeth yl	hydroxyphenylmeth yl	
5487	p-	p-	propyl
	nitrophenylmethyl	nitrophenylmethyl	
5488	benzyl	p-	2-methallyl
		nitrophenylmethyl	
5489	1-pyrollylmethyl	benzyl	4-methylpentyl
5490	1-pyrazolylmethyl	1-pyrollylmethyl	3-methallyl
5491	1-	1-pyrazolylmethyl	3-methylbutyl
	imidazolylmethyl		
5492	1-indolylmethyl	1-	3-methylpentyl
		imidazolylmethyl	
5493	2-pyridylmethyl	1-indolylmethyl	3-pentyl
5494	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5495	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl
5496	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5497	2-	cyclohexylmethyl	allyl
	thiophenylmethyl		
5498	(3,4-	2-	cyclobutylmethyl
	methylenedioxyph nyl)methyl	thiophenylmethyl	
5499	2-thienylmethyl	(3,4-	cyclopropylmethyl
		methylenedioxyph nyl)methyl	
5500	4-biphenylmethyl	2-thienylmethyl	isobutyl
5501	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5502	p-	2-thiomethylethyl	n-pentyl
	hydroxyphenylmeth yl		
5503	p-	p-	propyl
	nitrophenylmethyl	hydroxyphenylmeth yl	
5504	benzyl	p-	2-methallyl
		nitrophenylmethyl	
5505	1-pyrollylmethyl	benzyl	4-methylpentyl
5506	1-pyrazolylmethyl	1-pyrollylmethyl	3-methallyl
5507	1-	1-pyrazolylmethyl	3-methylbutyl
	imidazolylmethyl		
5508	1-indolylmethyl	1-	3-methylpentyl
		imidazolylmethyl	
5509	2-pyridylmethyl	1-indolylmethyl	3-pentyl

Table 14

5510	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5511	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl
5512	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5513	2-thiophenylmethyl	cyclohexylmethyl	allyl
5514	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl
5515	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl
5516	4-biphenylmethyl	2-thienylmethyl	isobutyl
5517	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5518	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl
5519	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl
5520	benzyl	p-nitrophenylmethyl	2-methallyl
5521	1-pyrollylmethyl	benzyl	4-methylpentyl
5522	1-pyrazolylmethyl	1-pyrollylmethyl	3-methallyl
5523	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
5524	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl
5525	2-pyridylmethyl	1-indolylmethyl	3-pentyl
5526	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5527	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethallyl
5528	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5529	2-thiophenylmethyl	cyclohexylmethyl	allyl
5530	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl
5531	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl
5532	4-biphenylmethyl	2-thienylmethyl	isobutyl
5533	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5534	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl
5535	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl

Table 15

TABLE 15



Example Number	R4	R7	R22
5536	benzyl	benzyl	2-methallyl
5537	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl
5538	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl
5539	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl
5540	1-indolylmethyl	1-indolylmethyl	3-methylpentyl
5541	2-pyridylmethyl	2-pyridylmethyl	3-pentyl
5542	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
5543	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethallyl
5544	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl
5545	2-thiophenylmethyl	2-thiophenylmethyl	allyl
5546	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl
5547	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl
5548	4-biphenylmethyl	4-biphenylmethyl	isobutyl
5549	2-thiomethylethyl	2-thiomethylethyl	n-butyl
5550	p-hydroxyphenylmethyl	p-hydroxyphenylmethyl	n-pentyl
5551	p-nitrophenylmethyl	p-nitrophenylmethyl	propyl
5552	benzyl	benzyl	2-methallyl
5553	1-pyrolylmethyl	1-pyrolylmethyl	4-methylpentyl
5554	1-pyrazolylmethyl	1-pyrazolylmethyl	3-methallyl
5555	1-imidazolylmethyl	1-imidazolylmethyl	3-methylbutyl
5556	1-indolylmethyl	1-indolylmethyl	3-methylpentyl

Table 15

5557	2-pyridylmethyl	2-pyridylmethyl	3-pentyl
5558	3-pyridylmethyl	3-pyridylmethyl	4-methylpentyl
5559	4-pyridylmethyl	4-pyridylmethyl	3,3-dimethylallyl
5560	cyclohexylmethyl	cyclohexylmethyl	3,3-dimethylbutyl
5561	2-thiophenylmethyl	2-thiophenylmethyl	allyl
5562	(3,4-methylenedioxyphenyl)methyl	(3,4-methylenedioxyphenyl)methyl	cyclobutylmethyl
5563	2-thienylmethyl	2-thienylmethyl	cyclopropylmethyl
5564	4-biphenylmethyl	4-biphenylmethyl	isobutyl
5565	2-thiomethylethyl	2-thiomethylethyl	n-butyl
5566	p-hydroxyphenylmethyl	p-hydroxyphenylmethyl	n-pentyl
5567	p-nitrophenylmethyl	p-nitrophenylmethyl	propyl
5568	benzyl	p-nitrophenylmethyl	2-methylallyl
5569	1-pyrolylmethyl	benzyl	4-methylpentyl
5570	1-pyrazolylmethyl	1-pyrolylmethyl	3-methylallyl
5571	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
5572	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl
5573	2-pyridylmethyl	1-indolylmethyl	3-pentyl
5574	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5575	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl
5576	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5577	2-thiophenylmethyl	cyclohexylmethyl	allyl
5578	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl
5579	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl
5580	4-biphenylmethyl	2-thienylmethyl	isobutyl
5581	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5582	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl
5583	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl
5584	benzyl	p-nitrophenylmethyl	2-methylallyl
5585	1-pyrolylmethyl	benzyl	4-methylpentyl
5586	1-pyrazolylmethyl	1-pyrolylmethyl	3-methylallyl
5587	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
5588	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl
5589	2-pyridylmethyl	1-indolylmethyl	3-pentyl

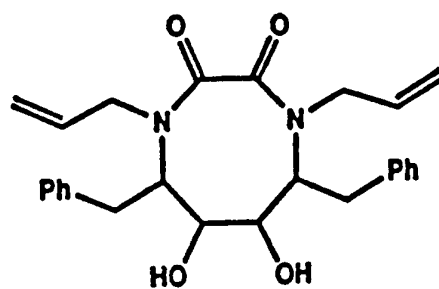
Table 15

5590	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5591	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl
5592	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5593	2-thiophenylmethyl	cyclohexylmethyl	allyl
5594	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl
5595	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl
5596	4-biphenylmethyl	2-thienylmethyl	isobutyl
5597	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5598	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl
5599	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl
5600	benzyl	p-nitrophenylmethyl	2-methylallyl
5601	1-pyrrolylmethyl	benzyl	4-methylpentyl
5602	1-pyrazolylmethyl	1-pyrrolylmethyl	3-methylallyl
5603	1-imidazolylmethyl	1-pyrazolylmethyl	3-methylbutyl
5604	1-indolylmethyl	1-imidazolylmethyl	3-methylpentyl
5605	2-pyridylmethyl	1-indolylmethyl	3-pentyl
5606	3-pyridylmethyl	2-pyridylmethyl	4-methylpentyl
5607	4-pyridylmethyl	3-pyridylmethyl	3,3-dimethylallyl
5608	cyclohexylmethyl	4-pyridylmethyl	3,3-dimethylbutyl
5609	2-thiophenylmethyl	cyclohexylmethyl	allyl
5610	(3,4-methylenedioxyphenyl)methyl	2-thiophenylmethyl	cyclobutylmethyl
5611	2-thienylmethyl	(3,4-methylenedioxyphenyl)methyl	cyclopropylmethyl
5612	4-biphenylmethyl	2-thienylmethyl	isobutyl
5613	2-thiomethylethyl	4-biphenylmethyl	n-butyl
5614	p-hydroxyphenylmethyl	2-thiomethylethyl	n-pentyl
5615	p-nitrophenylmethyl	p-hydroxyphenylmethyl	propyl

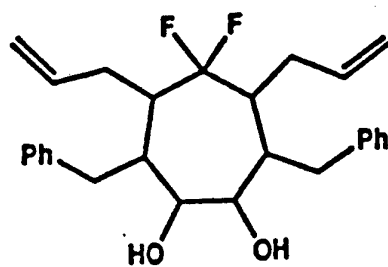
TABLE 16

Example
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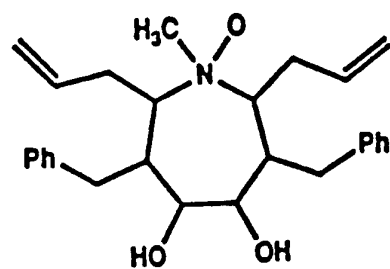
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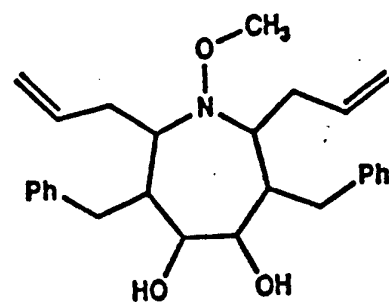
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5618



5619

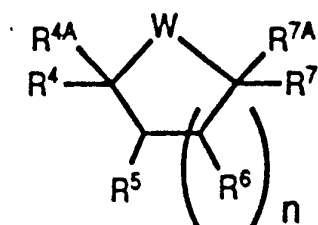


CLAIMS

WHAT IS CLAIMED IS:

5

1. A compound of the formula (I):



(I)

10

or a pharmaceutically acceptable salt or prodrug form thereof wherein:

- 15 R⁴ and R⁷ are independently selected from the following groups:

- hydrogen;
 C₁-C₈ alkyl substituted with 0-3 R¹¹;
 C₂-C₈ alkenyl substituted with 0-3 R¹¹;
 20 C₂-C₈ alkynyl substituted with 0-3 R¹¹;
 C₃-C₈ cycloalkyl substituted with 0-3 R¹¹;
 C₆-C₁₀ bicycloalkyl substituted with 0-3 R¹¹;
 aryl substituted with 0-3 R¹²;
 a C₆-C₁₄ carbocyclic residue substituted with 0-3
 25 R¹²;
 a heterocyclic ring system substituted with 0-2
 R¹², composed of 5 to 10 atoms including at least
 one nitrogen, oxygen or sulfur atom;

30

R^{4A} and R^{7A} are independently selected from the following groups:

- 5 hydrogen;
 C₁-C₄ alkyl substituted with halogen or C₁-C₂
 alkoxy;
 benzyl substituted with halogen or C₁-C₂ alkoxy;

- 10 R⁴ and R^{4A} can alternatively join to form a 5-7 membered
 carbocyclic ring substituted with 0-2 R¹²;

R⁷ and R^{7A} can alternatively join to form a 5-7 membered
 carbocyclic ring substituted with 0-2 R¹²;

- 15 n is 0, 1, or 2;

R⁵ is selected from fluoro, difluoro, =O, C₁-C₃ alkyl or
 -OR²⁰;

- 20 R⁶, when n is 1, is selected from: hydrogen, =O, fluoro,
 difluoro, C₁-C₃ alkyl or -OR²¹;

R⁶, when n is 2, is independently selected from:
 hydrogen, =O, fluoro, difluoro, C₁-C₃ alkyl or -OR²¹;

- 25 R⁵ and R⁶ can alternatively join to form an epoxide
 ring;

R²⁰ and R²¹ are independently selected from:

- 30 hydrogen;
 C₁-C₆ alkyl substituted with 0-3 R¹¹;
 C₃-C₆ alkoxyalkyl substituted with 0-3 R¹¹;
 C₁-C₆ alkylcarbonyl substituted with 0-3 R¹¹;
 35 C₁-C₆ alkoxy carbonyl substituted with 0-3 R¹¹;
 benzoyl substituted with 0-3 R¹²;

phenoxy carbonyl substituted with 0-3 R¹²;
 phenylaminocarbonyl substituted with 0-3 R¹²; or
 any group that, when administered to a mammalian
 subject, cleaves to form a free hydroxyl;

5

R¹¹ is selected from one or more of the following:

10 keto, halogen, cyano, -NR¹³R¹⁴, -CO₂R¹³,
 -OC(=O)R¹³, -OR¹³, C₂-C₆ alkoxyalkyl, -S(O)_mR¹³,
 -NHC(=NH)NHR¹³, -C(=NH)NHR¹³, -C(=O)NR¹³R¹⁴,
 -NR¹⁴C(=O)R¹³, =NOR¹⁴, -NR¹⁴C(=O)OR¹⁴,
 -OC(=O)NR¹³R¹⁴, -NR¹³C(=O)NR¹³R¹⁴, -NR¹⁴SO₂NR¹³R¹⁴,
 -NR¹⁴SO₂R¹³, -SO₂NR¹³R¹⁴, C₁-C₄ alkyl, C₂-C₄
 alkenyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl;

15

1-3 amino acids, linked together via amide bonds
 and linked to R⁴ or R⁷ via the amine or carboxylate
 terminus;

20

a C₅-C₁₄ carbocyclic residue substituted with 0-3
 R¹²;

aryl substituted with 0-3 R¹²; or

25

a heterocyclic ring system substituted with 0-2
 R¹², composed of 5 to 10 atoms including at least
 one nitrogen, oxygen or sulfur atom;

30 R¹², when a substituent on carbon, is selected from one
 or more of the following:

35 phenyl, benzyl, phenethyl, phenoxy, benzyloxy,
 halogen, hydroxy, nitro, cyano, C₁-C₄ alkyl, C₃-C₆
 cycloalkyl, C₃-C₆ cycloalkylmethyl, C₇-C₁₀ arylalkyl,
 C₁-C₄ alkoxy, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄

5 hydroxyalkyl, methylenedioxy, ethylenedioxy, C1-C4 haloalkyl, C1-C4 haloalkoxy, C1-C4 alkoxycarbonyl, C1-C4 alkylcarbonyloxy, C1-C4 alkylcarbonyl, C1-C4 alkylcarbonylamino, $-S(O)_mR^{13}$, $-SO_2NR^{13}R^{14}$, $-NHSO_2R^{14}$, $-OCH_2CO_2H$, 2-(1-morpholino)ethoxy; or

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;

10

or R^{12} may be a 3- or 4- carbon chain attached to adjacent carbons on the ring to form a fused 5- or 6-membered ring, said 5- or 6- membered ring being optionally substituted on the aliphatic carbons with

15

halogen, C1-C4 alkyl, C1-C4 alkoxy, hydroxy, or $-NR^{13}R^{14}$; or, when R^{12} is attached to a saturated carbon atom, it may be carbonyl or thiocarbonyl;

20 R^{12} , when a substituent on nitrogen, is selected from one or more of the following:

25 phenyl, benzyl, phenethyl, hydroxy, C1-C4 hydroxyalkyl, C1-C4 alkoxy, C1-C4 alkyl, C3-C6 cycloalkyl, C3-C6 cycloalkylmethyl, $-NR^{13}R^{14}$, C2-C6 alkoxyalkyl, C1-C4 haloalkyl, C1-C4 alkoxycarbonyl, C1-C4 alkylcarbonyloxy, C1-C4 alkylcarbonyl;

R^{13} is H, phenyl, benzyl or C1-C6 alkyl;

30 R^{14} is H or C1-C4 alkyl;

R^{13} and R^{14} can alternatively join to form $-(CH_2)_4-$, $-(CH_2)_5-$, $-CH_2CH_2N(R^{15})CH_2CH_2-$, or $-CH_2CH_2OCH_2CH_2-$;

35 R^{15} is H or CH_3 ;

m is 0, 1 or 2;

W is selected from:

- N(R²²)C(=Z)N(R²³)-;
- 5 -N(R²²)S(=O)N(R²³)-;
- OC(=Z)O-;
- N(R²²)C(=Z)O-;
- C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
- N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
- 10 -C(R²⁵)(R²⁶)C(=Z)O-;
- N(R²²)C(=O)C(=O)N(R²³)-;
- C(R²⁵)(R²⁶)C(F₂)C(R²⁷)(R²⁸)-;
- C(R²⁵)(R²⁶)N(CH₃)(O)C(R²⁷)(R²⁸)-;
- C(R²⁵)(R²⁶)N(OR²⁹)C(R²⁷)(R²⁸)-;
- 15 -C(R²⁵)(R²⁶)C(=Z)S-;

wherein:

Z is O, S, or NR²⁴;

20

R²² and R²³ are independently selected from the following:

- hydrogen;
- 25 C₁-C₈ alkyl substituted with 0-3 R¹¹;
- C₂-C₈ alkenyl substituted with 0-3 R¹¹;
- C₂-C₈ alkynyl substituted with 0-3 R¹¹;
- C₃-C₈ cycloalkyl substituted with 0-3 R¹¹;
- C₆-C₁₀ bicycloalkyl substituted with 0-3 R¹¹;
- 30 aryl substituted with 0-3 R¹²;
- a C₆-C₁₄ carbocyclic residue substituted with 0-3 R¹²;
- a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least
- 35 one nitrogen, oxygen or sulfur atom;

R²⁴ is selected from: hydroxy; amino; C₁-C₄ alkyl; C₁-C₄ alkoxy; C₁-C₄ aminoalkyl;

5 R²⁵ and R²⁷ are independently selected from the following:

hydrogen;
 C₁-C₈ alkyl substituted with 0-3 R¹¹;
 C₂-C₈ alkenyl substituted with 0-3 R¹¹;
 10 C₂-C₈ alkynyl substituted with 0-3 R¹¹;
 C₃-C₈ cycloalkyl substituted with 0-3 R¹¹;
 C₆-C₁₀ bicycloalkyl substituted with 0-3 R¹¹;
 aryl substituted with 0-3 R¹²;
 a C₆-C₁₄ carbocyclic residue substituted with 0-3
 15 R¹²;
 a heterocyclic ring system substituted with 0-2
 R¹², composed of 5 to 10 atoms including at least
 one nitrogen, oxygen or sulfur atom;

20 R²⁶ and R²⁸ are independently selected from:

hydrogen;
 C₁-C₄ alkyl substituted with halogen or C₁-C₂
 alkoxy;
 25 benzyl substituted with halogen or C₁-C₂ alkoxy;

R²⁹ is selected from:

hydrogen;
 30 C₁-C₄ alkyl substituted with halogen or C₁-C₂
 alkoxy;
 benzyl substituted with halogen or C₁-C₂ alkoxy;

35 alternatively, R²², R²⁵, or R²⁶, independently, can join
 with R⁴ or R^{4A} to form a five- or six-membered fused

C₃-C₄ alkenyl substituted with 0-3 R¹¹;
 C₃-C₄ alkynyl substituted with 0-3 R¹¹;

R^{4A} and R^{7A} are hydrogen;

5

n is 0 or 1;

R⁵ is selected from fluoro, difluoro, =O, or -OR²⁰;

10 R⁶ is selected from: hydrogen, =O, fluoro, difluoro, or -OR²¹;

R²⁰ and R²¹ are independently selected from:

15

hydrogen;

C₁-C₆ alkylcarbonyl;

C₁-C₆ alkoxy carbonyl;

benzoyl; or

any group that, when administered to a mammalian

20

subject, cleaves to form a free hydroxyl;

R¹¹ is selected from one or more of the following:

25

keto, halogen, cyano, -NR¹³R¹⁴, -CO₂R¹³,

-OC(=O)R¹³, -OR¹³, C₂-C₄ alkoxyalkyl, -S(O)_mR¹³,

C₁-C₄ alkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl;

a C₅-C₁₄ carbocyclic residue substituted with 0-3
 30 R¹²;

aryl substituted with 0-3 R¹²; or

35

a heterocyclic ring system substituted with 0-2
 R¹², composed of 5 to 10 atoms including at least
 one nitrogen, oxygen or sulfur atom;

heterocyclic, aromatic, or alicyclic ring substituted with 0-2 R^{12} ; and

- alternatively, R^{23} , R^{27} , or R^{28} , independently, can join
 5 with R^7 or R^{7A} to form a five- or six-membered fused heterocyclic, aromatic, or alicyclic ring substituted with 0-2 R^{12} ;

provided that:

10

when R^4 is hydrogen, R^7 is not hydrogen;

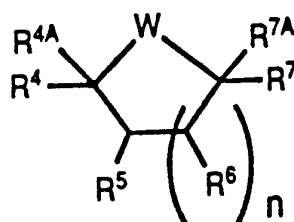
when W is $-OC(=Z)O-$, R^4 and R^7 are not hydrogen;

15

when R^4 is hydrogen, at least one of the following is not hydrogen: R^{22} , R^{23} , R^{25} , R^{26} , R^{27} and R^{28} .

2. A compound of Claim 1 of formula (I):

20



(I)

or a pharmaceutically acceptable salt or prodrug form
 25 thereof wherein:

R^4 and R^7 are independently selected from the following groups:

30

hydrogen;
 C_1 - C_4 alkyl substituted with 0-3 R^{11} ;

R¹², when a substituent on carbon, is selected from one or more of the following:

5

phenyl, benzyl, phenethyl, phenoxy, benzyloxy, halogen, hydroxy, nitro, cyano, C₁-C₄ alkyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl, C₇-C₁₀ arylalkyl, C₁-C₄ alkoxy, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄ hydroxyalkyl, methylenedioxy, ethylenedioxy, C₁-C₄ haloalkyl, C₁-C₄ haloalkoxy, C₁-C₄ alkoxycarbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl, C₁-C₄ alkylcarbonylamino, -S(O)_mR¹³, -SO₂NR¹³R¹⁴, -NHSO₂R¹⁴; or

10

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;

15

or R¹² may be a 3- or 4- carbon chain attached to adjacent carbons on the ring to form a fused 5- or 6-membered ring, said 5- or 6- membered ring being optionally substituted on the aliphatic carbons with halogen, C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, or -

20

NR¹³R¹⁴; or, when R¹² is attached to a saturated carbon atom, it may be carbonyl or thiocarbonyl;

R¹², when a substituent on nitrogen, is selected from one or more of the following:

25

phenyl, benzyl, phenethyl, hydroxy, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, C₃-C₆ cycloalkyl, C₃-C₆ cycloalkylmethyl, -NR¹³R¹⁴, C₂-C₆ alkoxyalkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxycarbonyl, C₁-C₄ alkylcarbonyloxy, C₁-C₄ alkylcarbonyl;

30

35

R¹³ is H or C₁-C₆ alkyl;

R¹⁴ is H, C₁-C₄ alkyl, or benzyl;

5 R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-,
-(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

R¹⁵ is H or CH₃;

10 m is 0, 1 or 2;

W is selected from:

15 -N(R²²)C(=Z)N(R²³)-;
-N(R²²)C(=Z)O-;
-C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
-N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
-C(R²⁵)(R²⁶)C(=Z)O-;
-N(R²²)C(=O)C(=O)N(R²³)-;
20 -C(R²⁵)(R²⁶)C(F₂)C(R²⁷)(R²⁸)-;

wherein:

Z is O;

25

R²² and R²³ are independently selected from the
following:

30 hydrogen;
C₁-C₈ alkyl substituted with 0-3 R¹¹;
C₃-C₈ alkenyl substituted with 0-3 R¹¹;
C₃-C₈ alkynyl substituted with 0-3 R¹¹;
C₃-C₆ cycloalkyl substituted with 0-3 R¹¹;

35 R²⁵ and R²⁷ are independently selected from the
following:

hydrogen;

C₁-C₈ alkyl substituted with 0-3 R¹¹;

C₂-C₈ alkenyl substituted with 0-3 R¹¹;

5 C₃-C₈ alkynyl substituted with 0-3 R¹¹;

R²⁶ and R²⁸ are hydrogen;

provided that:

10

when R⁴ is hydrogen, R⁷ is not hydrogen;

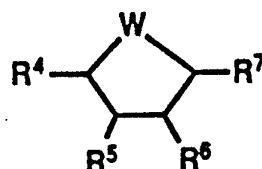
when W is -OC(=Z)O-, R⁴ and R⁷ are not hydrogen;

15

when R⁴ is hydrogen, at least one of the following
is not hydrogen: R²², R²³, R²⁵, R²⁶, R²⁷ and R²⁸.

3. A compound of Claim 1 of formula (II):

20



(II)

25 or a pharmaceutically acceptable salt or prodrug form
thereof wherein:

R⁴ and R⁷ are independently selected from the following
groups:

30

hydrogen;

C₁-C₄ alkyl substituted with 0-3 R¹¹;

C₃-C₄ alkenyl substituted with 0-3 R¹¹;

R⁵ is -OR²⁰;

R⁶ is hydrogen or -OR²¹;

5

R²⁰ and R²¹ are independently hydrogen or any group that, when administered to a mammalian subject, cleaves to form a free hydroxyl;

10

R¹¹ is selected from one or more of the following:

keto, halogen, -NR¹³R¹⁴, -OR¹³, C₂-C₄ alkoxyalkyl, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₃-C₆ cycloalkyl;

15

aryl substituted with 0-3 R¹²; or

a heterocyclic ring system substituted with 0-2 R¹², composed of 5 to 10 atoms including at least one nitrogen, oxygen or sulfur atom;

20

R¹², when a substituent on carbon, is selected from one or more of the following:

25

phenyl, benzyl, phenethyl, phenoxy, benzyloxy, halogen, C₁-C₄ alkyl, C₇-C₁₀ arylalkyl, C₁-C₄ alkoxy, -NR¹³R¹⁴, methylenedioxy, C₁-C₄ haloalkyl, C₁-C₄ alkylcarbonyl, C₁-C₄ alkylcarbonylamino; or

30

a 5- or 6-membered heterocyclic ring containing from 1 to 4 heteroatoms selected from oxygen, nitrogen or sulfur;

35

R¹², when a substituent on nitrogen, is selected from benzyl or methyl;

R¹³ is H or C₁-C₂ alkyl;

R¹⁴ is H or C₁-C₂ alkyl;

5

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-,
-(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

W is selected from:

10

-N(R²²)C(=Z)N(R²³)-;
-C(R²⁵)(R²⁶)C(=Z)C(R²⁷)(R²⁸)-;
-N(R²²)C(=Z)C(R²⁷)(R²⁸)-;
-C(R²⁵)(R²⁶)C(=Z)O-;

15

wherein:

Z is O;

20 R²² and R²³ are independently selected from the
following:

hydrogen;
C₁-C₄ alkyl substituted with 0-3 R¹¹;
25 C₃-C₄ alkenyl substituted with 0-3 R¹¹;

R²⁵ and R²⁷ are independently selected from the
following:

30 hydrogen;
C₁-C₄ alkyl substituted with 0-3 R¹¹;
C₃-C₄ alkenyl substituted with 0-3 R¹¹;

R²⁶ and R²⁸ are hydrogen;

35

provided that:

when R⁴ is hydrogen, R⁷ is not hydrogen;

5 when R⁴ is hydrogen, at least one of the following
is not hydrogen: R²², R²³, R²⁵, R²⁶, R²⁷ and R²⁸.

4. A compound of Claim 3 wherein:

10 R⁴ and R⁷ are independently selected from the following
groups:

hydrogen;

C₁-C₃ alkyl substituted with 0-1 R¹¹;

15

R⁵ is -OR²⁰;

R⁶ is hydrogen or -OR²¹;

20 R²⁰ and R²¹ are independently hydrogen or any group
that, when administered to a mammalian subject, cleaves
to form a free hydroxyl;

25 R¹¹ is selected from one or more of the following:

halogen, -OR¹³, C₁-C₄ alkyl, C₅-C₆ cycloalkyl;

aryl substituted with 0-2 R¹²; or

30

a heterocyclic ring system chosen from pyridyl,
pyrimidinyl, triazinyl, furanyl, thienyl, pyrrolyl,
pyrazolyl, imidazolyl, tetrazolyl, benzofuranyl,
indolyl, quinolinyl, isoquinolinyl;

35

R¹², when a substituent on carbon, is selected from one or more of the following:

benzyloxy, halogen, methyl, C₁-C₄ alkoxy, CF₃, 2-(1-morpholino)ethoxy; or

R¹², when a substituent on nitrogen, is methyl;

R¹³ is H or methyl;

R¹⁴ is H or methyl;

R¹³ and R¹⁴ can alternatively join to form -(CH₂)₄-, -(CH₂)₅-, -CH₂CH₂N(R¹⁵)CH₂CH₂-, or -CH₂CH₂OCH₂CH₂-;

W is -N(R²²)C(=O)N(R²³)-;

wherein:

R²² and R²³ are independently selected from the following:

hydrogen;

C₁-C₄ alkyl substituted with 0-1 R¹¹;

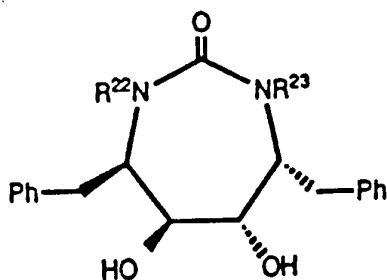
C₃-C₄ alkenyl substituted with 0-1 R¹¹;

provided that:

when R⁴ is hydrogen, R⁷ is not hydrogen;

when R⁴ is hydrogen, at least one of the following is not hydrogen: R²² and R²³.

5. A compound of Claim 1 of formula (IIa):



(IIa)

which is selected from the group consisting of:

5

the compound of formula (IIa) wherein R^{22} is H and R^{23} is H;

10 the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

the compound of formula (IIa) wherein R^{22} is 3,7-dimethyl-1-octyl and R^{23} is 3,7-dimethyl-1-octyl;

15

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$ and R^{23} is $\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OCH}_3$;

the compound of formula (IIa) wherein R^{22} is 3,7-dimethyl-1-octyl and R^{23} is H;

20

the compound of formula (IIa) wherein R^{22} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$ and R^{23} is H;

25 the compound of formula (IIa) wherein R^{22} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$ and R^{23} is $(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3$;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{OH}$ and R^{23} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$ and R^{23} is $\text{CH}_2\text{CH}_2\text{NHCH}(\text{CH}(\text{CH}_3)_2)\text{C}(=\text{O})\text{O-benzyl}$;

- 5 the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

the compound of formula (IIa) wherein R^{22} is methyl and R^{23} is methyl;

10

the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

- 15 the compound of formula (IIa) wherein R^{22} is n-hexyl and R^{23} is n-hexyl;

the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

- 20 the compound of formula (IIa) wherein R^{22} is N-morpholinoethyl and R^{23} is N-morpholinoethyl;

the compound of formula (IIa) wherein R^{22} is n-heptyl and R^{23} is n-heptyl;

25

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

- 30 the compound of formula (IIa) wherein R^{22} is ethyl and R^{23} is ethyl;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is H;

- 35 the compound of formula (IIa) wherein R^{22} is i-pentyl and R^{23} is i-pentyl;

the compound of formula (IIa) wherein R^{22} is 4-pyridylmethyl and R^{23} is 4-pyridylmethyl;

- 5 the compound of formula (IIa) wherein R^{22} is 2-methallyl and R^{23} is 2-methallyl;

the compound of formula (IIa) wherein R^{22} is n-pentyl and R^{23} is n-pentyl;

10

the compound of formula (IIa) wherein R^{22} is i-octyl and R^{23} is i-octyl;

- 15 the compound of formula (IIa) wherein R^{22} is i-hexyl and R^{23} is i-hexyl;

the compound of formula (IIa) wherein R^{22} is i-heptyl and R^{23} is i-heptyl;

- 20 the compound of formula (IIa) wherein R^{22} is i-butyl and R^{23} is i-butyl;

the compound of formula (IIa) wherein R^{22} is 3-propargyl and R^{23} is 3-propargyl;

25

the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl;

- 30 the compound of formula (IIa) wherein R^{22} is 2-pyridylmethyl and R^{23} is 2-pyridylmethyl;

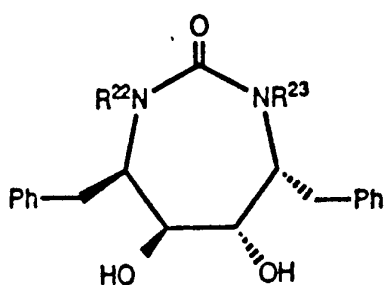
the compound of formula (IIa) wherein R^{22} is phenylpropyl and R^{23} is phenylpropyl;

- 35 the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is isoprenyl;

the compound of formula (IIa) wherein R^{22} is 1-cinnamyl and R^{23} is 1-cinnamyl.

5

6. A compound of Claim 1 of formula (IIa):



10

which is selected from the group consisting of:

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

15

the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

20

the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

the compound of formula (IIa) wherein R^{22} is n-hexyl and R^{23} is n-hexyl;

25

the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

30

the compound of formula (IIa) wherein R^{22} is $CH_2CH_2CH(CH_2)_2$ and R^{23} is H;

5 the compound of formula (IIa) wherein R^{22} is i-pentyl and R^{23} is i-pentyl;

the compound of formula (IIa) wherein R^{22} is 2-methallyl and R^{23} is 2-methallyl;

10 the compound of formula (IIa) wherein R^{22} is n-pentyl and R^{23} is n-pentyl;

the compound of formula (IIa) wherein R^{22} is i-hexyl and R^{23} is i-hexyl;

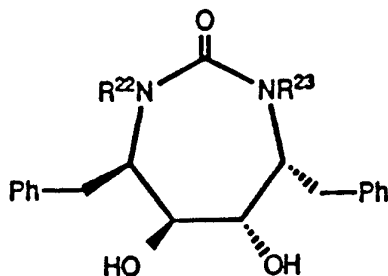
15 the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl;

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is isoprenyl;

20 the compound of formula (IIa) wherein R^{22} is 1-cinnamyl and R^{23} is 1-cinnamyl.

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7. A compound of Claim 1 of formula (IIa):



(IIa)

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which is selected from the group consisting of:

the compound of formula (IIa) wherein R^{22} is allyl and R^{23} is allyl;

- 5 the compound of formula (IIa) wherein R^{22} is cyclopropylmethyl and R^{23} is cyclopropylmethyl;

the compound of formula (IIa) wherein R^{22} is n-butyl and R^{23} is n-butyl;

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the compound of formula (IIa) wherein R^{22} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$ and R^{23} is $\text{CH}_2\text{CH}=\text{CH}(\text{CH}_3)_2$;

- 15 the compound of formula (IIa) wherein R^{22} is propyl and R^{23} is propyl;

the compound of formula (IIa) wherein R^{22} is i-pentyl and R^{23} is i-pentyl;

- 20 the compound of formula (IIa) wherein R^{22} is benzyl and R^{23} is benzyl.

- 25 8. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 1.

- 30 9. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 2.

- 35 10. A method for the treatment of viral infections which comprises administering to a host in need of such

treatment a pharmaceutically effective amount of a compound of Claim 3.

5 11. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 4.

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 12. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 5.

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 13. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 6.

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 14. A method for the treatment of viral infections which comprises administering to a host in need of such treatment a pharmaceutically effective amount of a compound of Claim 7.

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 15. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 1.

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 16. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a

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pharmaceutically effective antiviral amount of a compound of Claim 2.

- 5 17. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 3.

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18. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 4.

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19. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 5.

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20. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 6.

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21. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmaceutically effective antiviral amount of a compound of Claim 7.

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