PŘIHLÁŠKA VYNÁLEZU

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(71) Přihlašovatel:
SOCIÉTÉ DE CONSEILS DE RECHERCHES ET D'APPLICATIONS SCIENTIFIQUES (S.C.R.A.S.), Paris, FR

(72) Původce:
Moiner Christophe, Montreal, CA
Sackur Carole, Paris, FR
Thurieau Christophe, Paris, FR

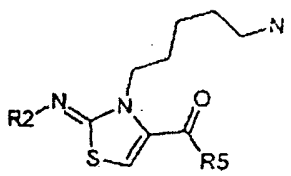
(74) Zástupce:
Švorčík Otakar JUDr., Hálkova 2, Praha 2, 12000

(54) Název přihlášky vynálezu:

Deriváty 2-arylamino-2,3-dihydrothialozolu, způsob jejich přípravy a jejich terapeutické použití

(57) Anotace:

Řešení se týká nových derivátů 2-arylimino-2,3-dihydrothiazolů obecného vzorce i a jejich způsobů přípravy a jejich použití jako léčiv, farmaceutických kompozic s jejich obsahem a jejich použití pro přípravu léčiv, obzvláště pro léčbu patologických stavů nebo onemocnění, ve kterých se účastní jeden nebo více receptorů somatostatinu. Tyto stavy zahrnují obzvláště akromegalie, adenomy hypofýzy nebo endokrinní gastroenteropankreatické nádory včetně karcinoidního syndromu a gastro-intestinální krvácení.



(i)

CZ 2003 - 1917 A3

JUDr. Otakar Švorčík
advokát
Hálkova 2, 120 00 Praha 2

23.01.04

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Deriváty 2-arylamino-2,3-dihydrothiazolu, způsoby jejich přípravy a jejich terapeutické použití

Oblast techniky

Předložený vynález se týká nových derivátů 2-arylimino-2,3-dihydrothiazolů a jejich způsobů přípravy. Tyto produkty mají dobrou afinitu k jistým podtypům receptorů somatostatinu a mají tedy zajímavé farmakologické vlastnosti. Předložený vynález se také týká těchto produktů jakožto léčiv, farmaceutických kompozic s jejich obsahem a jejich použití pro přípravu léčiv, určených pro léčbu patologických stavů nebo onemocnění, ve kterých se účastní jeden nebo více receptorů somatostatinu.

Somatostatin (SST) je cyklický tetradekapeptid, který byl isolován poprvé z hypothalamu jako látka inhibující růstový hormon (Brazeau P. a kol., Science 1973, 179, 77-79). Somatostatin působí také jako neurotransmiter v mozku (Reisine T. a kol., Neuroscience 1995, 67, 777-790; Reisine a kol., Endocrinology 1995,16, 427-442). Molekulární klonování umožnilo prokázat, že biologická aktivita somatostatinu závisí přímo na třídě pěti receptorů vázaných na membránu.

Heterogenita biologických funkcí somatostatinu vedla ke studiím, které se pokoušely identifikovat vztah struktura-aktivita peptidových analogů u receptorů somatostatinu, což

vedlo k objevu 5 podtypů receptors (Yamada a kol., Proc. Natl. Acad. Sci. U. S. A, 89, 251-255, 1992; Raynor, K. a kol., Mol. Pharmacol., 44, 385-392, 1993). Funkční role těchto receptorů jsou v současné době aktivně studovány. Afinity k různým podtypům receptorů somatostatinu byly uvedeny v souvislost s léčbou dále uvedených poruch/onemocnění. Aktivace podtypů 2 a 5 souvisí s potlačením růstového hormonu (GH) a obzvláště s adenomy vylučujícími GH (akromegalie) a adenomy vylučujícími hormon TSH. Aktivace podtypu 2, ale nikoli podtypu 5, souvisí s léčbou adenomů vylučujících prolaktin. Další indikace související s aktivací podtypů receptorů somatostatinu jsou restenóza, inhibice vylučování insulinu a/nebo glukagonu a zejména diabetes mellitus, hyperlipidemie, necitlivost na insulin, Syndrom X, angiopatie, proliferativní retinopatie, Dawnův fenomen a nefropatie; inhibice vylučování žaludeční kyseliny a zejména žaludeční vředy, enterokutánní a pankreatikokutánní píštěle, syndrom dráždivého trakčníku, Dumpingův syndrom, syndrom vodnatých průjmů, průjmy související s AIDS, průjmy indukované chemoterapii, akutní nebo chronické pankreatitidy a sekretující gastrointestinální nádory; léčba rakoviny jako jsou hepatomy; inhibice angiogeneze, léčba zánětlivých poruch jako je artritida; chronické odmítání allogenních štěpů; angioplastika; prevence krvácení cévních štěpů a gastrointestinálního krvácení. Agonisté somatostatinu mohou také být použit pro snížení hmotnosti pacienta.

Mezi patologickými poruchami souvisejícími se somatostatinem (Moreau J. P. a kol., Life Sciences, 1987,

40, 419; Harris A. G. a kol., The European Journal of Medicine, 1993, 2, 97-105), mohou tedy být například citovány následující nemoci a poruchy: akromegalie, adenomy hypofýzy, Cushingova nemoc, gonadotrofinomy a prolaktinomy, sekundární katabolické účinky glukokortikoidů, na insulinu závislý diabetes, diabetické retinopatie, diabetické nefropatie, hyperthyroidie, gigantismus, endokrinní gastroenteropankreatické nádory, mezi nimi obzvláště karcinoidní syndrom, VIPom, insulinom, nesidioblastóza, hyperinsulinemie, glukagonom, gastrinom a Zollinger-Ellisonův syndrom, GRFom, stejně tak jako akutní krvácení esofagiálních křečových žil, gastroesofagiální reflux, gastroduodenální reflux, pankreatitida, enterokutánní a pankreatické píštěle, ale také průjmy, úporné průjmy při syndromu získané imunitní nedostatečnosti, sekreční chronické průjmy, průjmy související se syndromem dráždivého trakčníku, poruchy související s peptidem uvolňujícím gastrin, sekundární patologie intestinálních štěpů, portální hypertenze stejně tak jako krvácení u nemocných cirhózou, gastro-intestinální krvácení, krvácení gastroduodenálních vředů, Crohnova nemoc, sklerózy, dumping syndrom, syndrom tenkého střeva, hypotenze, sklerodermie a medulární karcinom štítné žlázy, onemocnění související s buněčnou hyperproliferací jako jsou rakoviny a obzvláště rakovina prsu, rakovina prostaty, rakovina štítné žlázy stejně tak jako rakovina slinivky břišní a kolorektální rakovina, fibrózy a obzvláště fibróza ledvin, fibróza jater, fibróza plic, fibróza kůže, také fibróza centrálního nervového systému, fibróza nosu a fibróza indukovaná chemoterapií, a ostatní terapeutické oblasti, jako

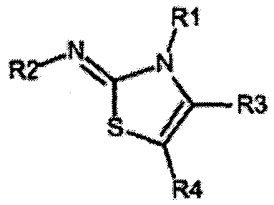
například cefalea (bolest hlavy), včetně cefaley související s nádory hypofýzy, bolest, panický záchvat, chemoterapie, jizvení poranění, renální nedostatečnost související s opožděným růstem, obezita a opožděný růst související s obezitou, opožděným růst v děloze, dysplasie kostry, Noonanův syndrom, syndrom zástavy dechu ve spánku, Gravesova nemoc, polycystické onemocnění vaječníků, pankreatické polycysty a vodnatelnosti, leukemie, meningiom, rakovinná kachexie, inhibice H. pylori, psoriáza a Alzheimerova nemoc. Je také možno uvést osteoporózu.

Přihlašovatelé zjistili, že sloučeniny obecného vzorce (I) popsané dále vykazují afinitu a selektivitu pro receptory somatostatinu. Jelikož somatostatin a jeho peptidové analogy mají často špatnou biologickou dostupnost při podávání cestou orální a slabou selektivitu (Robinson, C., Drugs of the Future, 1994, 19, 992; Reubi, J. C. a kol., TIPS, 1995, 16, 110), sloučeniny podle předloženého vynálezu, nepeptidoví agonisté nebo antagonisté somatostatinu, mohou být výhodně používáni pro léčbu patologických stavů nebo onemocnění jako jsou stavy nebo onemocnění uvedené výše, na kterých se podílí jeden nebo více receptorů somatostatinu. Uvedené sloučeniny mohou být výhodně používány pro léčbu akromegalie, adenomů hypofýzy nebo endokrinní gastroenteropankreatické nádory a karcinoidní syndrom.

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Předmět vynálezu

Sloučeniny podle předloženého vynálezu mají obecný vzorec (I)



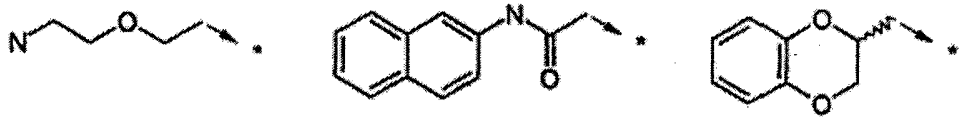
(I)

a mohou být ve formě racemické, ve formě enantiomerů nebo v libovolné kombinaci těchto forem, přičemž ve vzrci (I):

R1 představuje zbytek amino(C_2-C_7)alkyl, aminoalkylarylalkyl, aminoalkylcykloalkylalkyl, (C_1-C_{15})alkyl, (C_3-C_7)cykloalkyl, (C_1-C_6)alkyl(C_3-C_6)cykloalkyl, (C_3-C_6)cykloalkylalkyl, cyklohexenylalkyl, alkenyl, alkinyl, karbocyklický aryl obsahující alespoň dva cykly, z nichž alespoň jeden není aromatický, karbocyklický nebo heterocyklický aralkyl, popřípadě substituovaný na arylové skupině, bis-arylalkyl, alkoxyalkyl, furanylalkyl, tetrahydrofuranylalkyl, dialkylaminoalkyl, N-acetamidoalkyl, kyanoalkyl, alkylthioalkyl, arylhydroxyalkyl, aralkoxyalkyl, morfolinoalkyl, pyrrolidinoalkyl, piperidinoalkyl, N-alkylpyrrolidinoalkyl, N-alkylpiperazinylalkyl nebo oxopyrrolidinoalkyl,

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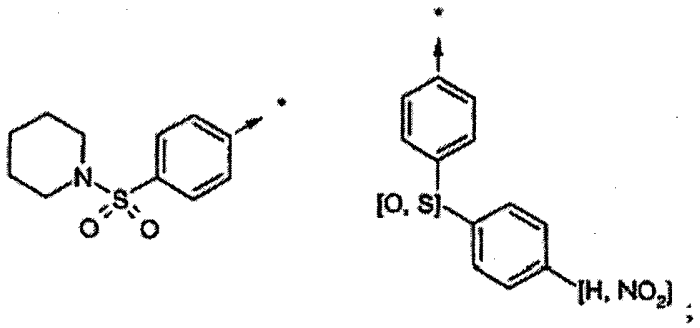
nebo R1 představuje jeden ze zbytků uvedených dále:



nebo také R1 představuje zbytek -C(R11)(R12)-CO-R10;

R2 představuje zbytek karbocyklický nebo heterocyklický popřípadě substituovaný aryl,

nebo také R2 představuje jeden ze zbytků uvedených dále:

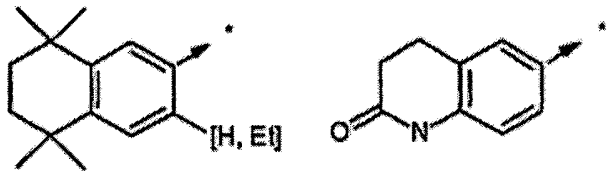


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R3 představuje zbytek alkyl, adamantyl, karbocyklický nebo heterocyklický popřípadě substituovaný aryl, karbocyklický nebo heterocyklický aralkyl, popřípadě substituovaný na arylové skupině,

nebo R3 představuje jeden ze zbytků uvedených dále:

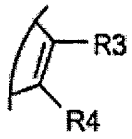
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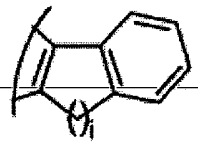
nebo také R3 představuje zbytek -CO-R5;

R4 představuje H, alkyl, karbocyklický nebo heterocyklický aralkyl popřípadě se nacházející na arylovém zbytku;

nebo také zbytek



představuje zbytek obecného vzorce



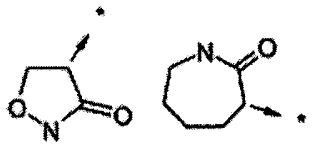
ve kterém i představuje celé číslo od 1 do 3;

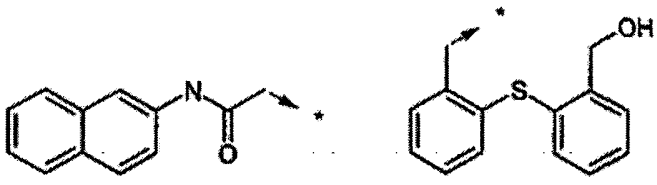
R5 představuje zbytek N(R6)(R7);

R6 představuje zbytek (C_1-C_{16})alkyl, cykloalkylalkyl, hydroxyalkyl, aryloxyalkyl, karbocyklický nebo

heterocyklický aralkyl, popřípadě substituovaný na arylové skupině, aralkoxyalkyl, arylhydroxyalkyl, alkoxyalkyl, alkylthioalkyl, alkenyl, alkinyl, cyklohexenyl, cyklohexenylalkyl, alkylthiohydroxyalkyl, kyanoalkyl, N-acetamidoalkyl, bis-arylalkyl popřípadě substituovaný na arylových skupinách, diarylalkyl popřípadě substituovaný na arylových skupinách, morfolinoalkyl, pyrrolidinoalkyl, piperidinoalkyl, N-alkylpyrrolidinoalkyl, oxopyrrolidinoalkyl, tetrahydrofuranylalkyl, N-benzylpyrrolidinoalkyl, N-alkylpiperazinylalkyl, N-benzylpiperazinylalkyl, N-benzylpiperidinylalkyl nebo N-alkoxykarbonylpiperidinyl, nebo R6 představuje zbytek (C_3-C_8)cykloalkyl popřípadě substituovaný zbytkem zvoleným ze souboru, zahrnujícího zbytek hydroxy a zbytek alkyl,

nebo také R6 představuje jeden ze zbytků uvedených dále:

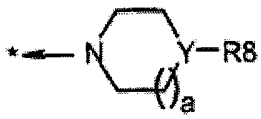




R7 představuje H nebo zbytek alkyl, hydroxyalkyl, mono- nebo di-aminoalkyl nebo aralkyl;

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nebo také zbytek -N(R6)(R7) představuje zbytek následujícího obecného vzorce:



ve kterém:

R8 představuje H, alkyl, hydroxyalkyl, karbocyklický nebo heterocyklický popřípadě substituovaný aryl, aralkyl popřípadě substituovaný na arylové skupině, alkenyl, alkoxyalkyl, cykloalkyl, cykloalkylalkyl, bis-arylalkyl, piperidinyl, pyrrolidinyl, hydroxy, arylalkenyl,

nebo R8 představuje $-X-(CH_2)_b-R9$;

R9 představuje H nebo zbytek alkyl, alkoxy, aryloxy, karbocyklický nebo heterocyklický popřípadě substituovaný aryl, morfolinyl, pyrrolidinyl, alkylamino nebo N,N'-(alkyl)(aryl)amino;

X představuje CO, CO-NH nebo SO_2;

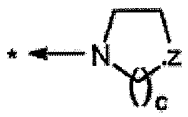
Y představuje CH nebo N;

a představuje 1 nebo 2;

b představuje celé číslo od 0 a 6;

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nebo zbytek N(R6)(R7) představuje zbytek obecného vzorce



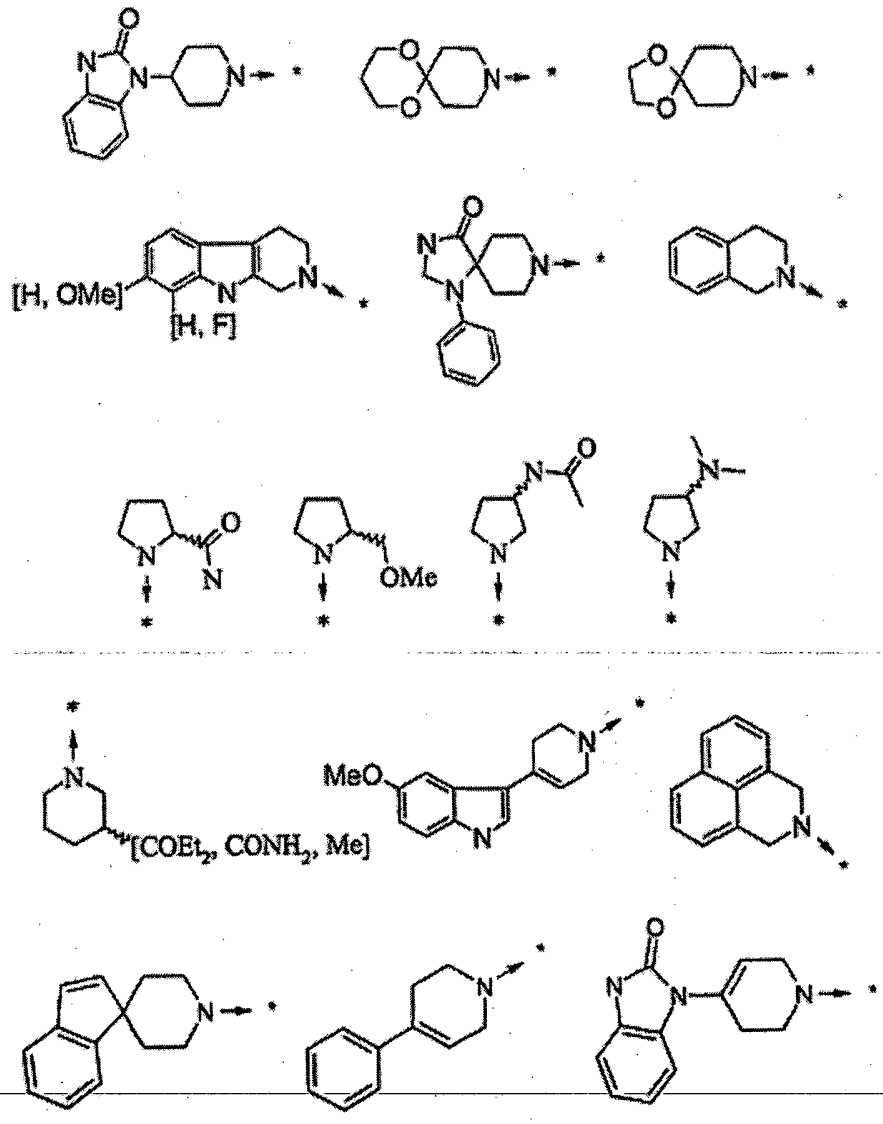
ve kterém:

Z představuje CH, O nebo S;

c představuje celé číslo od 0 a 4;

nebo také zbytek N(R6)(R7) představuje jeden ze zbytků uvedených dále:

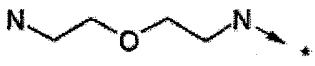
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R10 představuje zbytek amino(C_2-C_7)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cykloalkyl)alkylamino, piperazinyl, homopiperazinyl,

nebo R10 představuje následující zbytek:

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;

R11 představuje H;

R12 představuje H nebo zbytek alkyl, (C_3-C_7)cykloalkyl, karbocyklický nebo heterocyklický aralkyl popřípadě substituovaný, propargyl, allyl, hydroxyalkyl, alkylthioalkyl, arylalkylalkoxyalkyl, arylalkylthioalkoxyalkyl;

nebo sloučeniny podle předloženého vynálezu jsou soli sloučenin obecného vzorce (I).

Pokud sloučeniny obecného vzorce (I) obsahují zbytky R1, R2, R3, R4, R6, R8, R9 nebo R12 v to počítaje zbytek aryl nebo aralkyl substituované na arylové skupině, pak uvedené zbytky aryl nebo aralkyl jsou výhodně následující zbytky:

- pro R1, pokud arylová skupina je substituována, může být substituována jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly) zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl, alkoxy, alkylthio, halogenalkyl, halogenalkoxy, aryl, aralkoxy nebo SO_2NH_2. V případě potřeby mohou být dva substituenty vázány mezi sebou a vytvářet cykl, například mohou spolu představovat zbytek methylendioxy nebo propylen.

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- Pro R2, pokud arylová skupina je substituována, může být substituována jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly). Zbytek aryl může být substituován zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl, alkoxy, alkylthio, halogenalkyl, alkenyl, halogenalkoxy, nitro, kyano, azido, SO_2N, mono- nebo di-alkylamino, aminoalkyl, aralkoxy nebo aryl. V případě potřeby mohou být dva substituenty vázány mezi sebou a vytvářet cykl, například mohou spolu představovat zbytek methylendioxy, ethylendioxy nebo propylen.

- Pro R3, pokud arylová skupina nebo skupiny (pocházející ze zbytku aryl nebo aralkyl) jsou substituované, mohou podle případu být substituovány jednou až pětkrát (kromě vazby, která je váže ke zbytku molekuly). Karbocyklické zbytky aryl nebo aralkyl mohou být substituovány jednou až pětkrát na arylovém jádře zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl, hydroxy, alkoxy, halogenalkyl, halogenalkoxy, nitro, kyano, azido, mono- nebo di-alkylamino, pyrrolidinyl, morfolinyl, aralkoxy nebo aryl. V případě potřeby mohou být dva substituenty vázány mezi sebou a vytvářet cykl, například mohou spolu představovat zbytek alkylendioxy obsahující 1 až 3 atomy uhlíku. Heterocyklické zbytky aryl nebo aralkyl ve významu R3 mohou být na svém jádře substituovány jednou až dvakrát zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a alkylové zbytky.

- Pro R4, pokud arylová skupina je substituována, může být substituována jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly). Zbytek aryl může být substituovaný zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl nebo alkoxy.

- Pro R6, pokud arylová skupina nebo skupiny jsou substituovány, mohou být substituovány jednou až pětkrát (kromě vazby, která je váže ke zbytku molekuly). Případné substituenty arylových skupin jsou nezávisle zvoleny ze souboru, zahrnujícího atom halogenu a zbytky alkyl, alkoxy, alkylthio, halogenalkyl, halogenalkoxy, aryl, aryloxy nebo SO_2NH_2.

- Pro R8, pokud arylová skupina nebo skupiny je (jsou) substituovány, mohou být substituovány jednou až pětkrát (kromě vazby, která je váže ke zbytku molekuly). Případné substituenty arylových skupin jsou nezávisle zvoleny ze souboru, zahrnujícího atom halogenu a zbytky alkyl, halogenalkyl, alkoxy, hydroxy, kyano, nitro nebo alkylthio.

- Pro R9, pokud zbytek karbocyklický nebo heterocyklický aryl je substituován, může být substituován jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly). Případné substituenty arylové skupiny jsou nezávisle zvoleny ze souboru, zahrnujícího atom halogenu a zbytky alkyl, halogenalkyl, alkoxy, halogenalkoxy, alkylthio, karbocyklický aryl, hydroxy, kyano nebo nitro.

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- Pro R12, pokud zbytek karbocyklický nebo heterocyklický aryl je substituován, může být substituován jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly). Případné substituenty arylové skupiny jsou nezávisle zvoleny ze souboru, zahrnujícího atom halogenu a zbytky alkyl, alkoxy, karbocyklický aryl, aralkoxy, hydroxy, kyano nebo nitro.

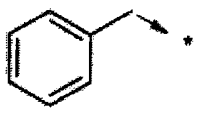
Výrazem alkyl, pokud není blíže specifikován nebo upřesněn se rozumí přímý nebo rozvětvený alkylový zbytek obsahující 1 až 6 atomů uhlíku. Výrazem cykloalkyl, pokud není blíže specifikován nebo upřesněn, se rozumí monocyklický uhlíkatý systém obsahující 3 a 7 atomy uhlíku. Výrazem alkenyl, pokud není blíže specifikován nebo upřesněn, se rozumí přímý nebo rozvětvený alkylový zbytek obsahující 1 až 6 atomů uhlíku a obsahující alespoň jednu nenasycenou vazbu (dvojná vazba). Výrazem alkinyl, pokud není blíže specifikován nebo upřesněn, se rozumí přímý nebo rozvětvený alkylový zbytek obsahující 1 až 6 atomů uhlíku a alespoň jedno místo nenasycení (trojná vazba). Výrazem karbocyklický nebo heterocyklický aryl se rozumí karbocyklický nebo heterocyklický systém obsahuje alespoň jeden aromatický cykl, přičemž systém se nazývá heterocyklický, pokud alespoň jeden z cyklů, které jej vytvářejí, obsahuje heteroatom (O, N nebo S). Výrazem halogenalkyl se rozumí alkylový zbytek, ve kterém alespoň jeden z jeho atomů vodíku (a popřípadě všechny) je nahrazen atomem halogenu.

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Výrazem zbytky alkylthio, alkoxy, halogenalkyl, halogenalkoxy, aminoalkyl, alkenyl, alkinyl a aralkyl se rozumí zbytky alkylthio, alkoxy, halogenalkyl, halogenalkoxy, aminoalkyl, alkenyl, alkinyl a aralkyl, ve kterých zbytek alkyl má stejný význam, jako bylo uvedeno výše.

Výrazem přímý nebo rozvětvený alkyl obsahující od 1 do 6 atomů uhlíku se rozumí zejména zbytky methyl, ethyl, propyl, isopropyl, butyl, isobutyl, sek.-butyl a terc.-butyl, pentyl, neopentyl, isopentyl, hexyl, isohexyl. Výrazem cykloalkyl se rozumí zejména zbytky cyklopropyl, cyklobutyl, cyklopentyl, cyklohexyl a cykloheptyl. Výrazem karbocyklický nebo heterocyklický aryl se rozumí zejména zbytky fenyl, naftyl, pyridinyl, furanyl, thiofenyl, indanyl, indolyl, imidazolyl, benzofuranyl, benzothiofenyl, ftalimidyl. Výrazem karbocyklický nebo heterocyklický aralkyl se rozumí zejména zbytky benzyl, fenylthyl, fenylpropyl, fenylbutyl, indolylalkyl, ftalimidoalkyl, naftylalkyl, furanylalkyl, thiofenylalkyl, benzothiofenylalkyl, pyridinylalkyl a imidazolylalkyl.

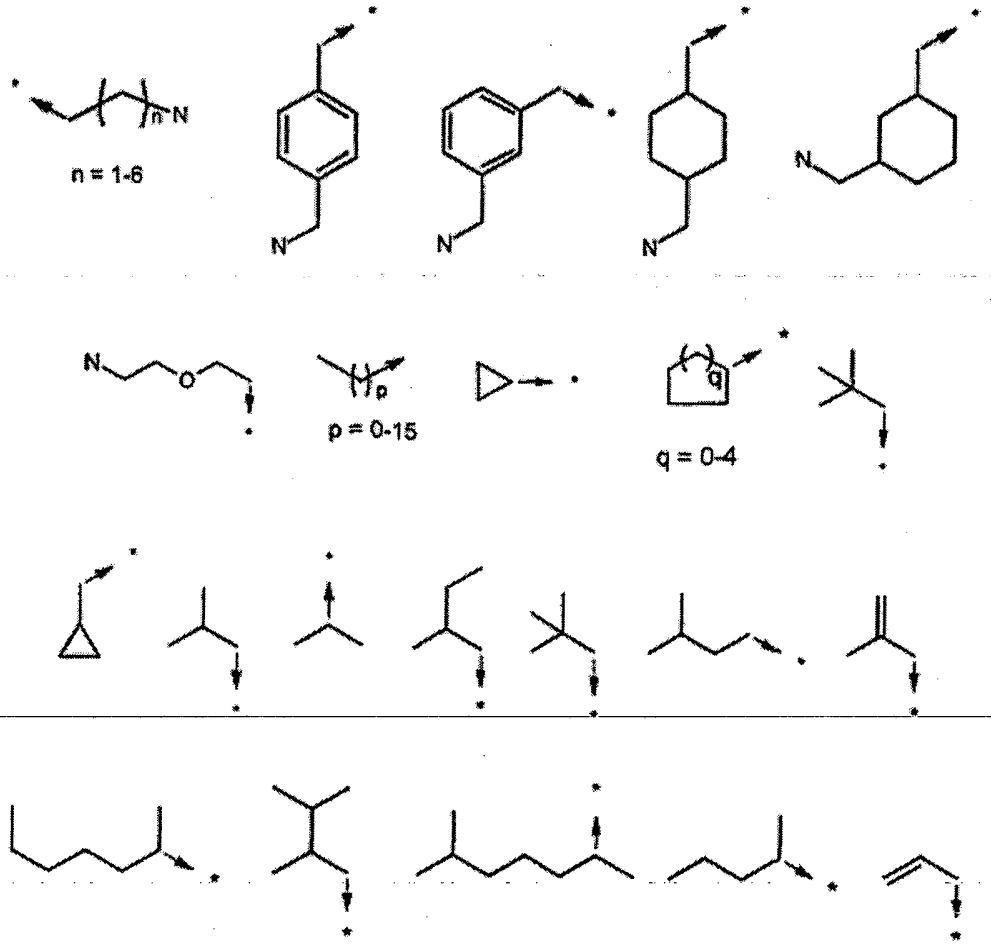
Pokud z chemické struktury vystupuje šipka, uvedená šipka označuje místo připojení. Například:



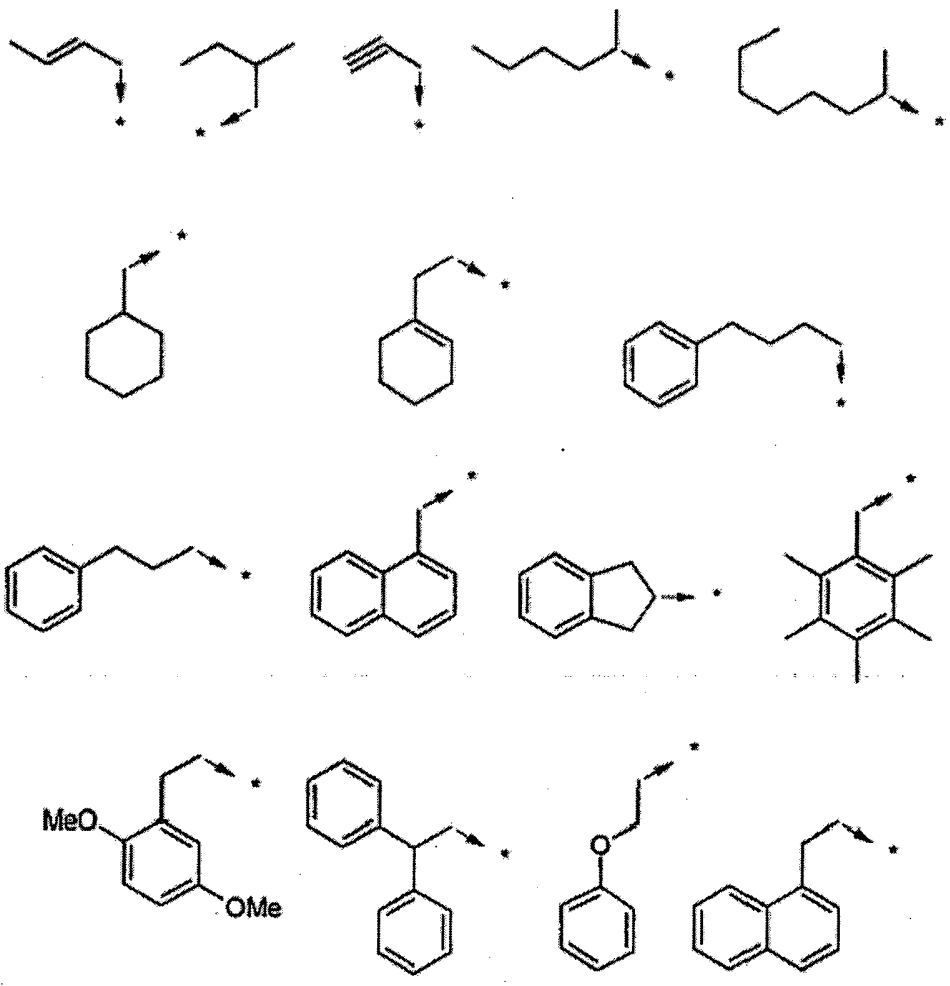
představuje zbytek benzyl.

Výhodně jsou sloučeniny obecného vzorce (I) takové, že:

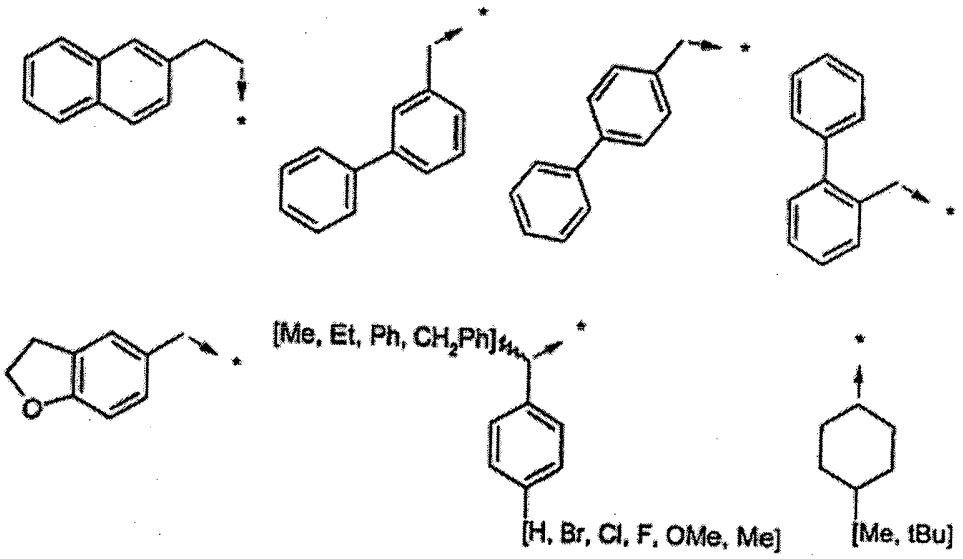
R1 představuje -C(R11)(R12)-CO-R10 nebo jeden z následujících zbytků:

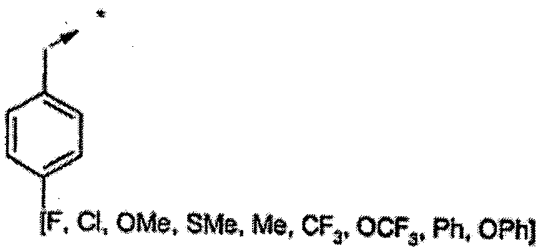


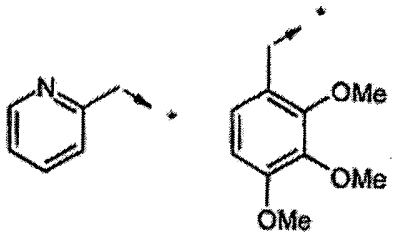
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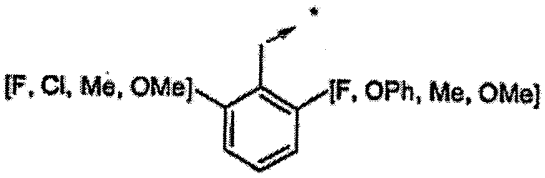


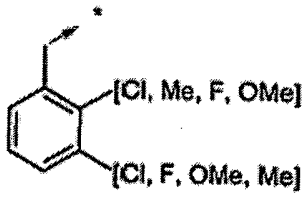
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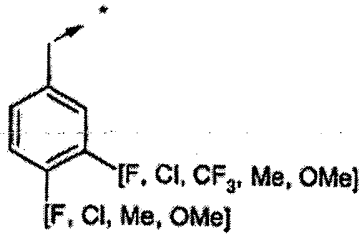

[Me, Et, Ph, CH2Ph]
[H, Br, Cl, F, OMe, Me]
[Me, tBu]
N
O
O
[F, Cl, OMe, Me, CF3, OCF3, Ph]
[H, F, Br, Cl, OMe, SMe, OEt, CF3, OCF3, Ph, Me]
N
MeO
OMe
OMe
[Cl, F, OMe, Me, CF3]
[Cl, F, CF3, OMe, Me]

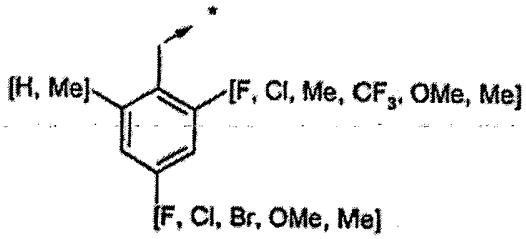

[F, Cl, OMe, SMe, Me, CF3, OCF3, Ph, OPh]

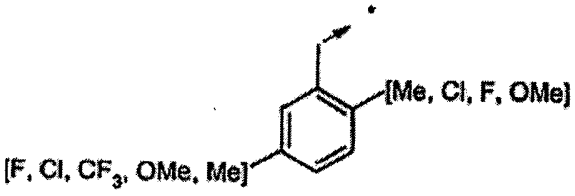

N
OMe
OMe
OMe

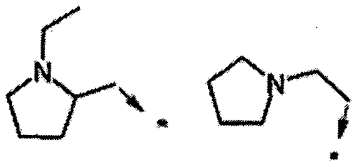

[F, Cl, Me, OMe]
[F, OPh, Me, OMe]

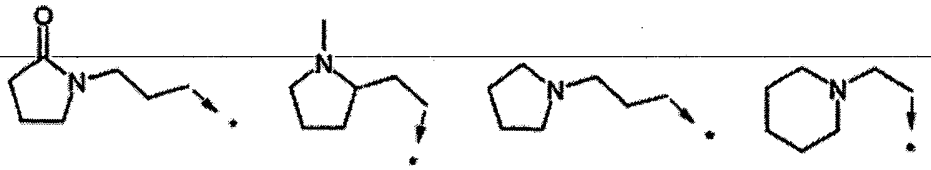

[Cl, Me, F, OMe]
[Cl, F, OMe, Me]

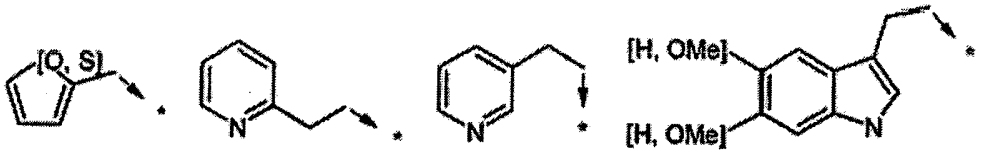

[F, Cl, CF3, Me, OMe]
[F, Cl, Me, OMe]


[H, Me]
[F, Cl, Me, CF3, OMe, Me]
[F, Cl, Br, OMe, Me]

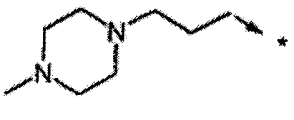

[Me, Cl, F, OMe]
[F, Cl, CF3, OMe, Me]


N
N


O
N
N
N
N

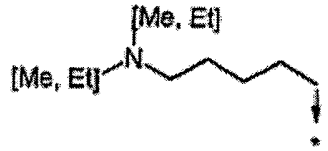

[O, S]
N
N
[H, OMe]
[H, OMe]
N

23.01.04





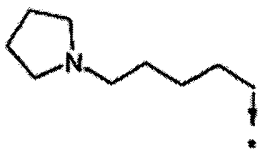


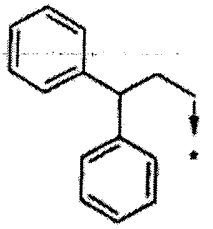

[Me, Et]
[Me, Et]

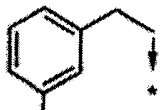

[Me, iPr]
[Me, iPr]

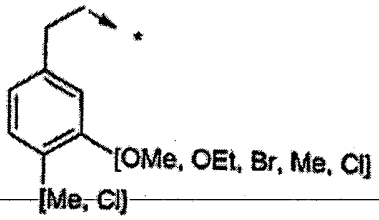


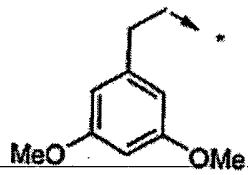


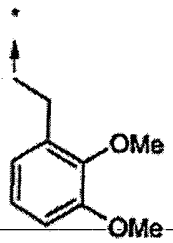


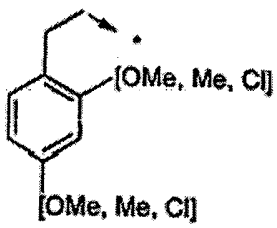


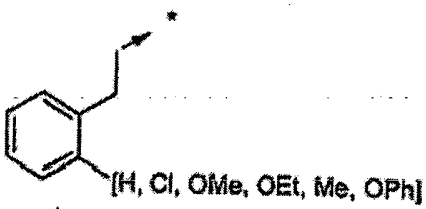

[OMe, CF3, OEt, F, Cl, Me]

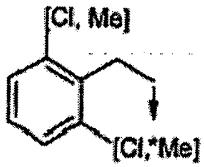

[OMe, OEt, Br, Me, Cl]
[Me, Cl]

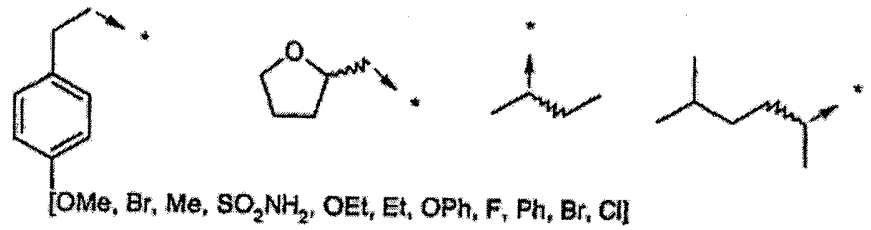

MeO
OMe

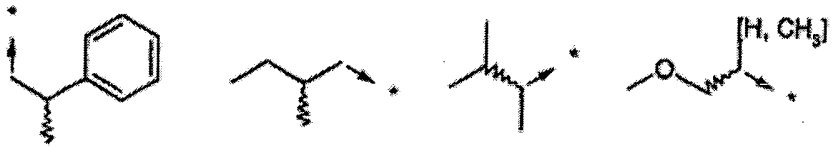

OMe
OMe

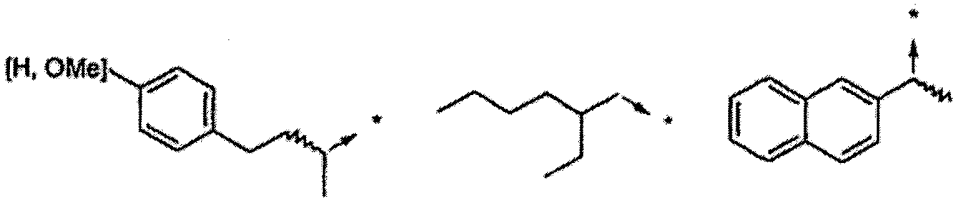

[OMe, Me, Cl]
[OMe, Me, Cl]

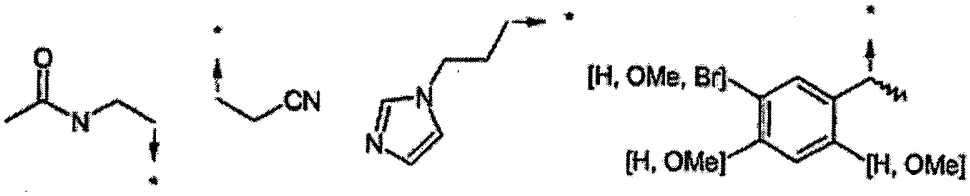

[H, Cl, OMe, OEt, Me, OPh]


[Cl, Me]
[Cl,*Me]

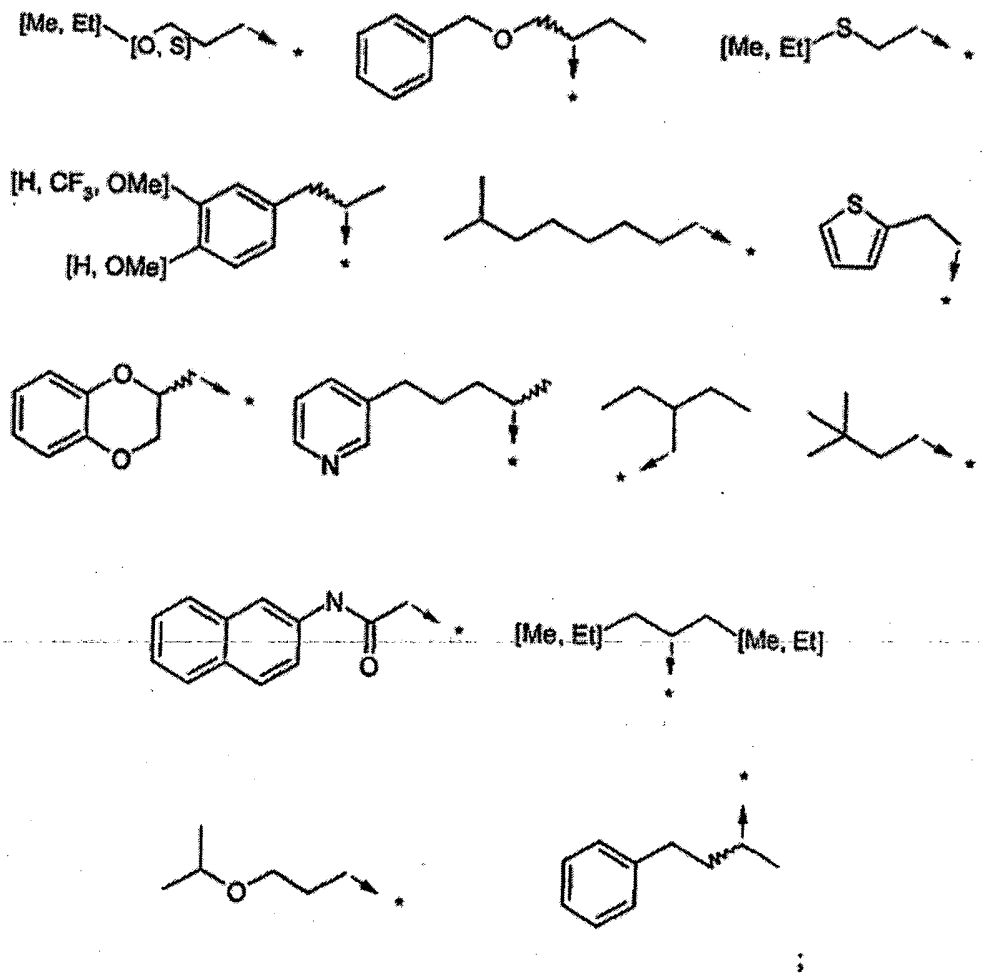

[OMe, Br, Me, SO_2NH_2, OEt, Et, OPh, F, Ph, Br, Cl]


[H, CH_3]


[H, OMe]


CN
[H, OMe, Br]
[H, OMe]
[H, OMe]

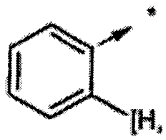
23.01.04



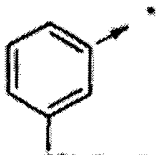
;

R2 představuje jeden z následujících zbytků:

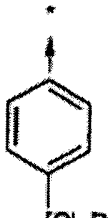
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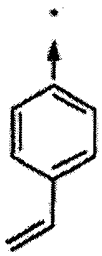
[H, Cl, Br, F, I, OMe, SMe, OEt, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, Ph]



[Cl, Br, F, I, OMe, SMe, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, OCH_2Ph]

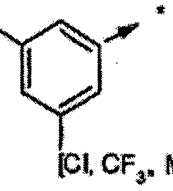


[Cl, Br, F, I, OMe, OEt, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, nBu, tBu, NMe_2, NEt_2]



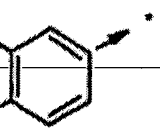


[Cl, CF_3, Me, OMe]



[Cl, CF_3, Me, OMe]

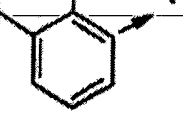
[Cl, OMe, Me, CF_3, NO_2]



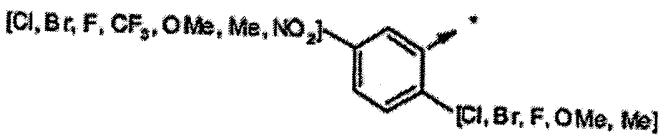
[Cl, Br, F, OMe, Me]

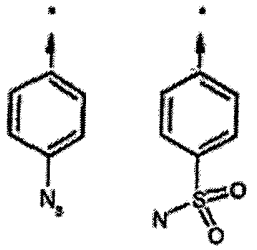
[Cl, Me]

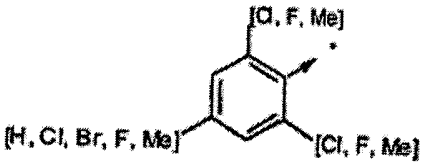
[Cl, Me]

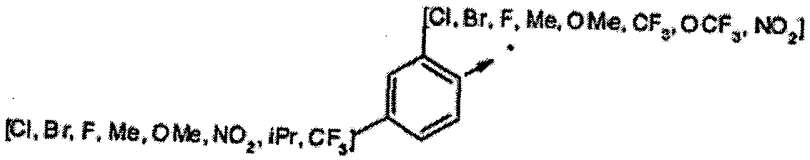


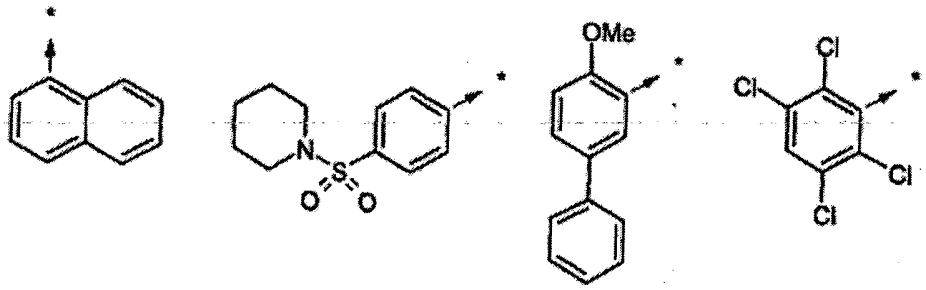
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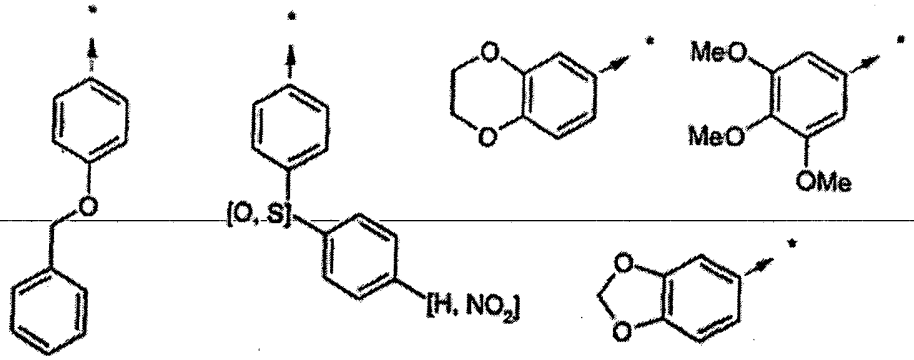

[Cl, Br, F, CF3, OMe, Me, NO2]
[Cl, Br, F, OMe, Me]


N3
N
S
O
O

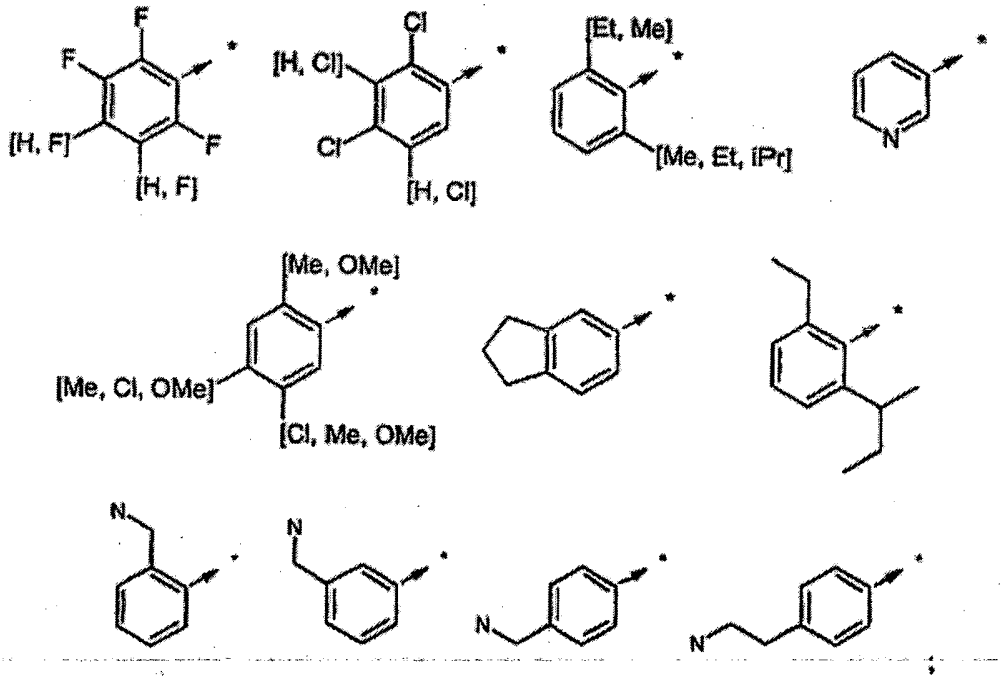

[Cl, F, Me]
[H, Cl, Br, F, Me]
[Cl, F, Me]


[Cl, Br, F, Me, OMe, CF3, OCF3, NO2]
[Cl, Br, F, Me, OMe, NO2, iPr, CF3]

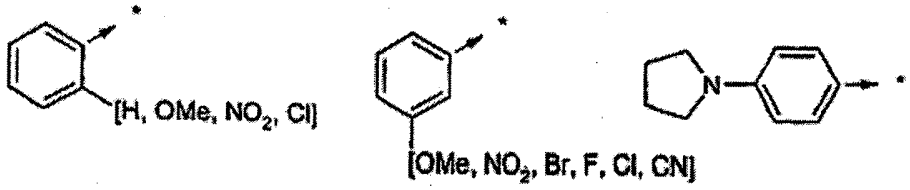

N
S
O
O
OMe
Cl
Cl
Cl
Cl

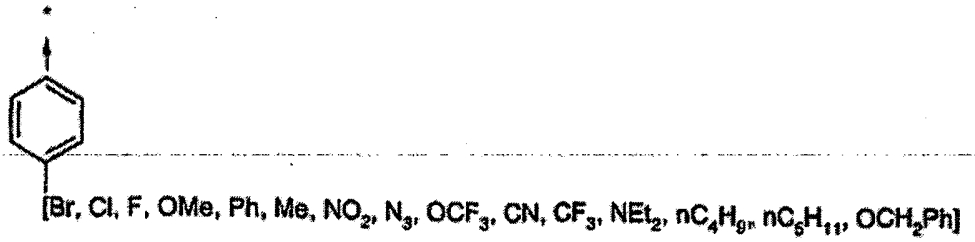

O
O
[O, S]
[H, NO2]
O
O
MeO
MeO
OMe
O
O

23.01.04

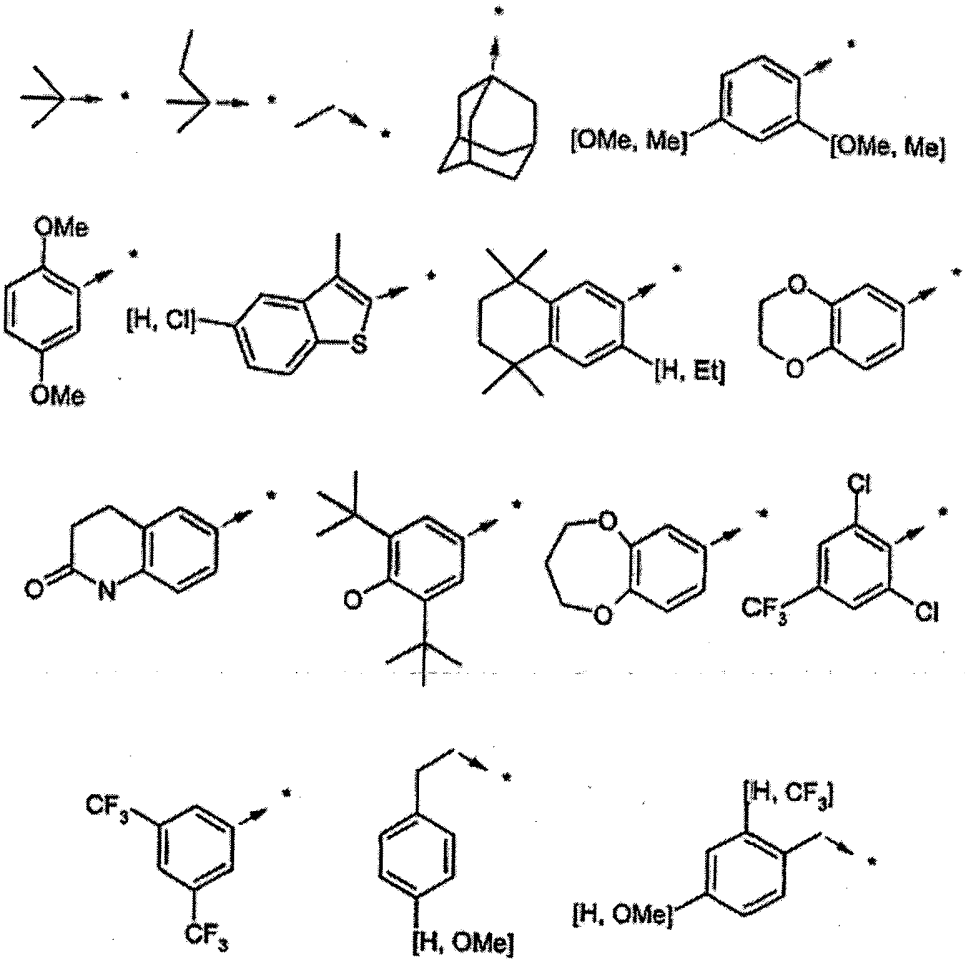


R3 představuje CO-R5 nebo jeden z následujících zbytků:

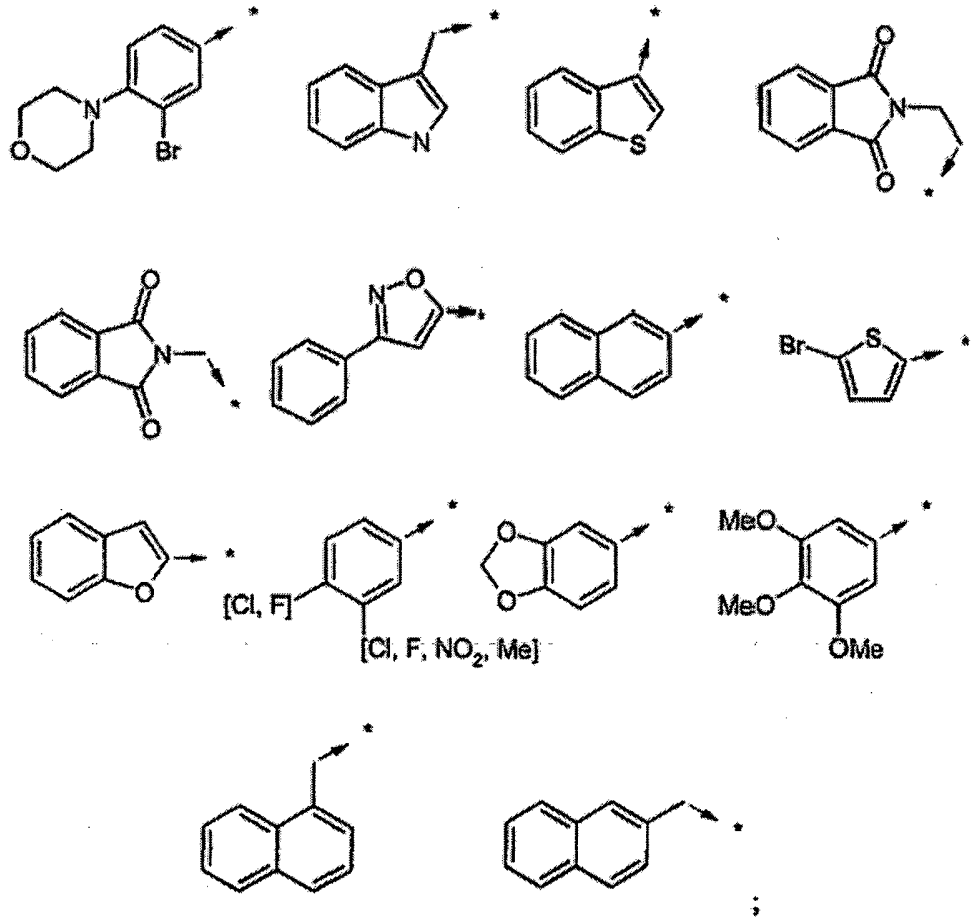




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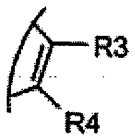

[OMe, Me]
[OMe, Me]
OMe
OMe
[H, Cl]
S
[H, Et]
O
O
O
N
O
O
O
Cl
CF3
Cl
CF3
CF3
[H, OMe]
[H, CF3]
[H, OMe]

23.01.04



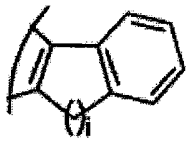
;

R4 představuje H, alkyl, karbocyklický nebo heterocyklický aralkyl popřípadě substituovaný na arylovém zbytku;



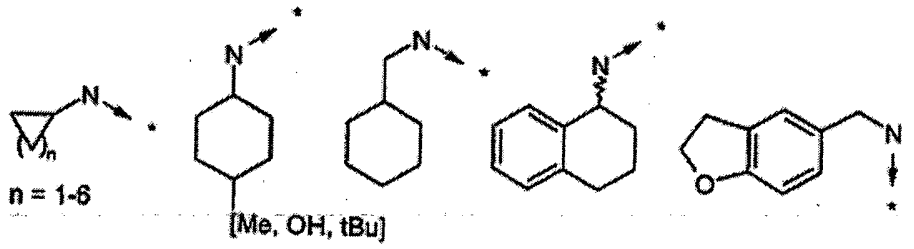
nebo také zbytek představuje zbytek obecného vzorce

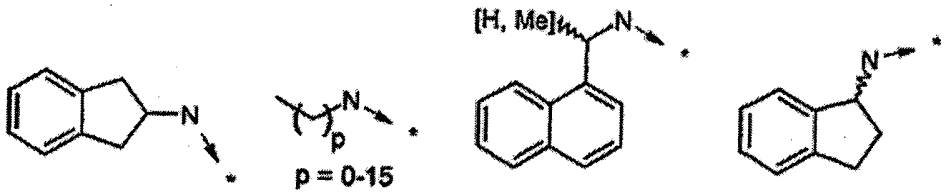
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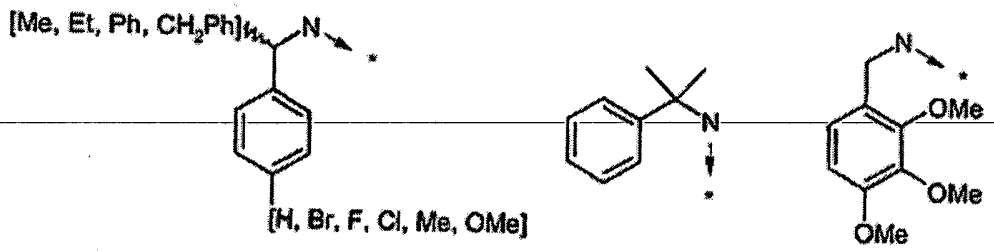


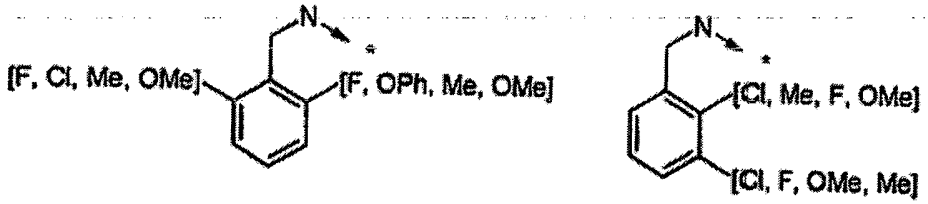
ve kterém i představuje celé číslo od 1 do 3;

R5 představuje jeden z následujících zbytků:

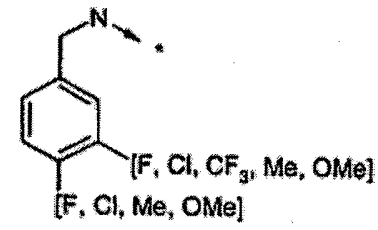


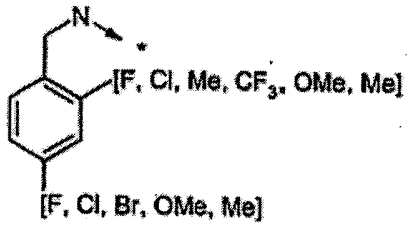


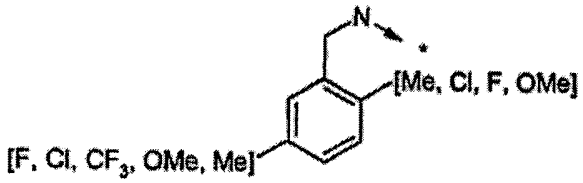


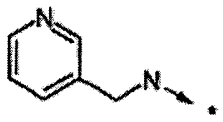


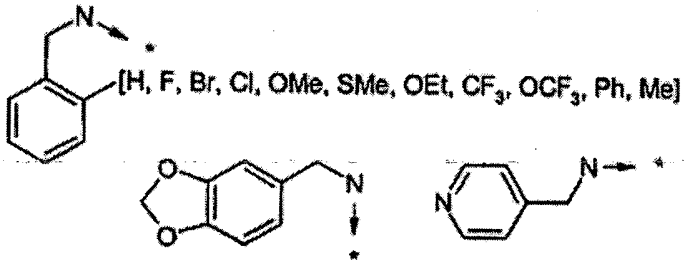
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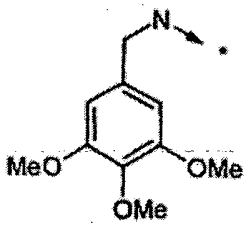

N
[F, Cl, CF3, Me, OMe]
[F, Cl, Me, OMe]

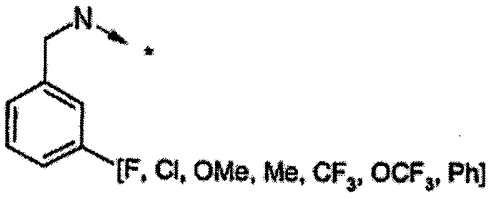

N
[F, Cl, Me, CF3, OMe, Me]
[F, Cl, Br, OMe, Me]

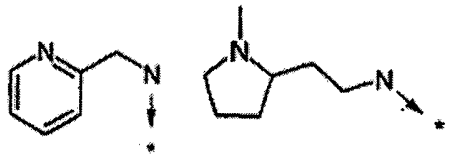

N
[Me, Cl, F, OMe]
[F, Cl, CF3, OMe, Me]

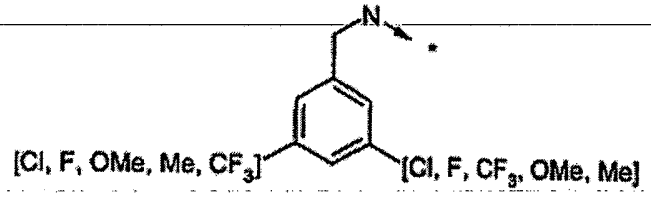

N
N


N
[H, F, Br, Cl, OMe, SMe, OEt, CF3, OCF3, Ph, Me]
O
O
N
N
N

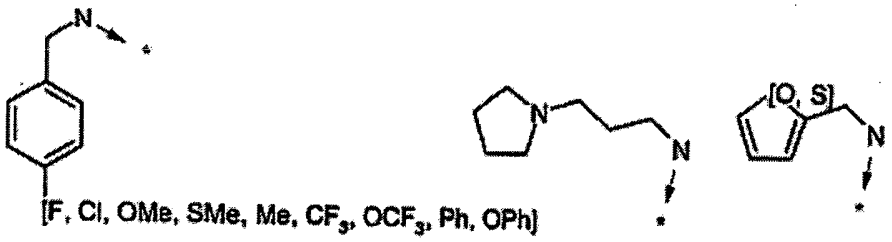

N
MeO
OMe
OMe


N
[F, Cl, OMe, Me, CF3, OCF3, Ph]

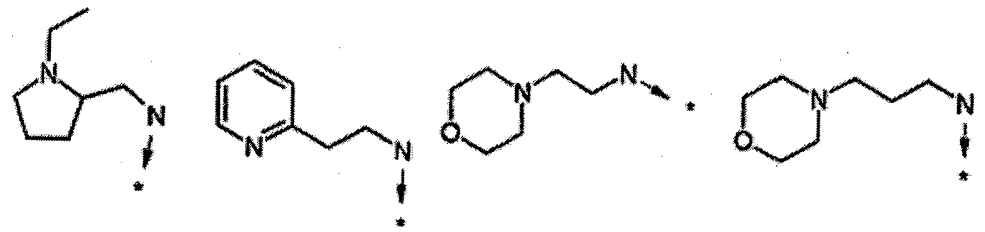

N
N
N
N

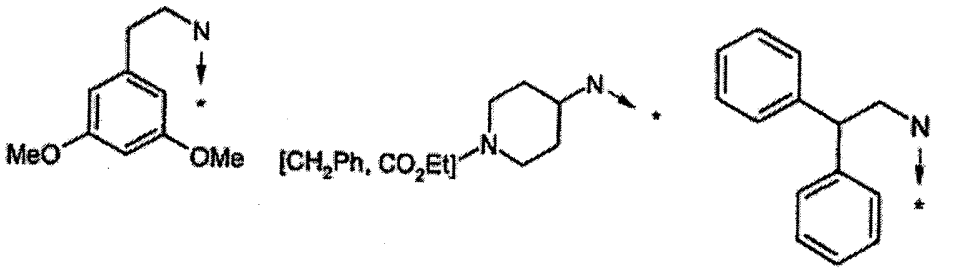

N
[Cl, F, OMe, Me, CF3]
[Cl, F, CF3, OMe, Me]

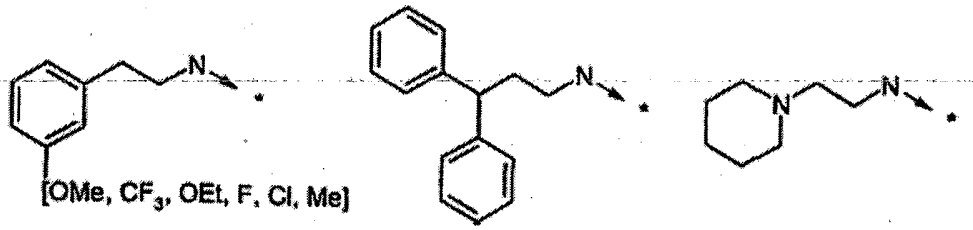

N
N

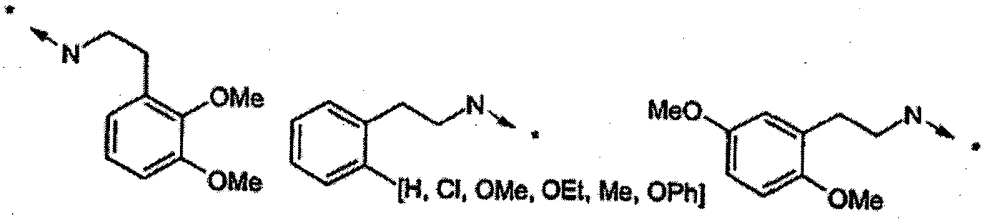

N
[F, Cl, OMe, SMe, Me, CF3, OCF3, Ph, OPh]
N
[O, S]
N

23.01.04

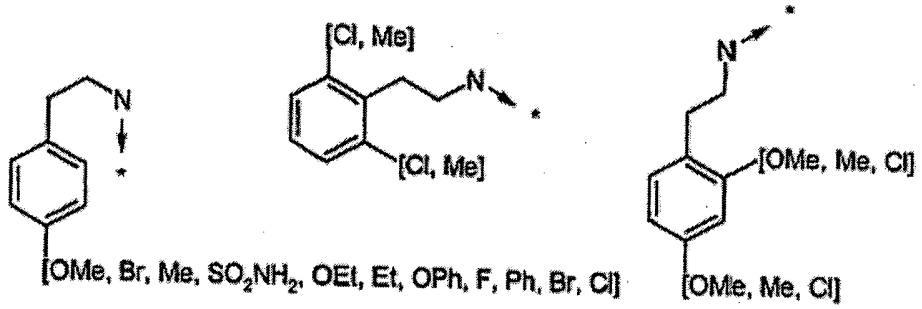


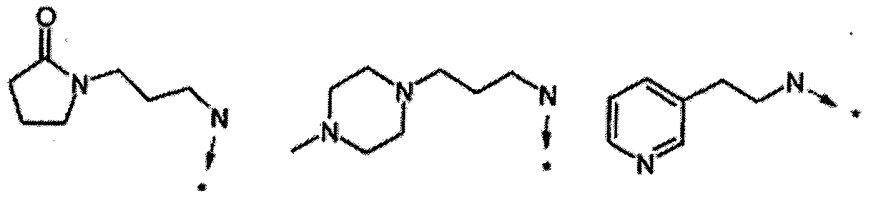

MeO
OMe
[CH2Ph, CO2Et]

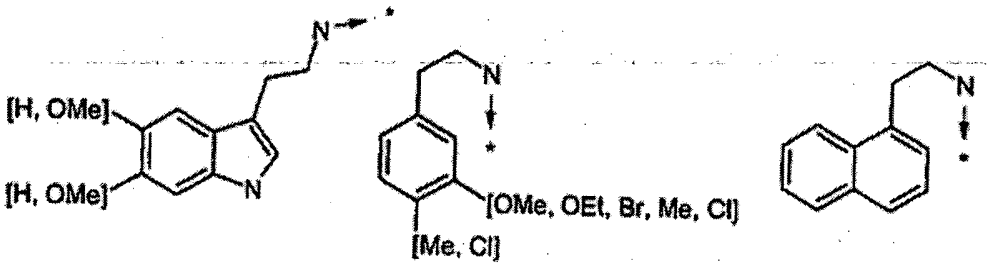

[OMe, CF3, OEt, F, Cl, Me]

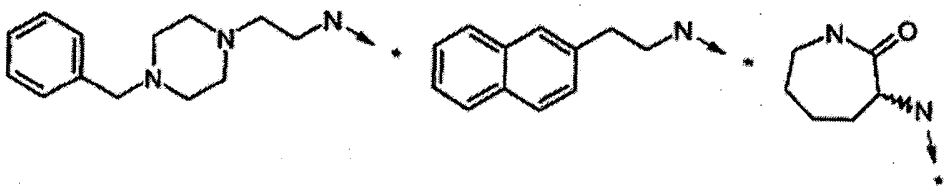

OMe
OMe
[H, Cl, OMe, OEt, Me, OPh]
MeO
OMe

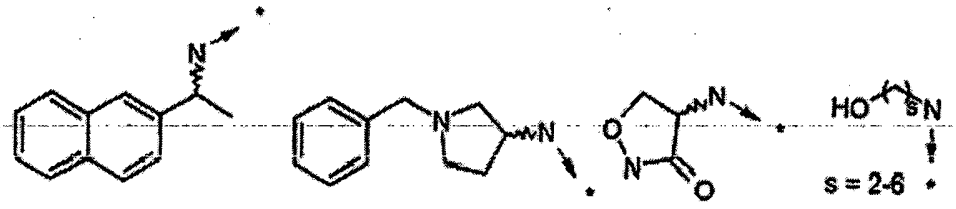
23.01.04


[Cl, Me]
[Cl, Me]
[OMe, Me, Cl]
[OMe, Br, Me, SO_2NH_2, OEt, Et, OPh, F, Ph, Br, Cl]
[OMe, Me, Cl]

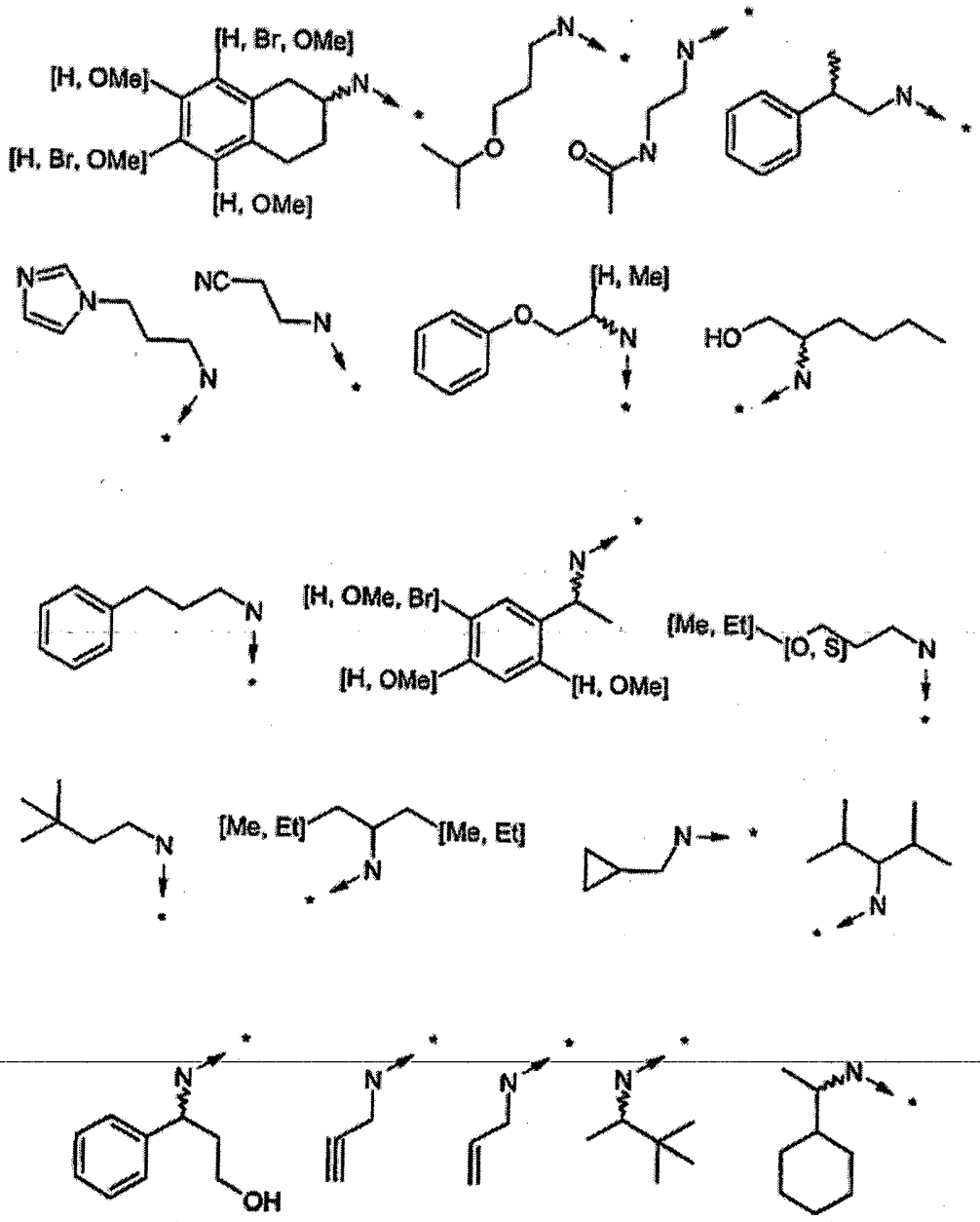



[H, OMe]
[H, OMe]
[OMe, OEt, Br, Me, Cl]
[Me, Cl]

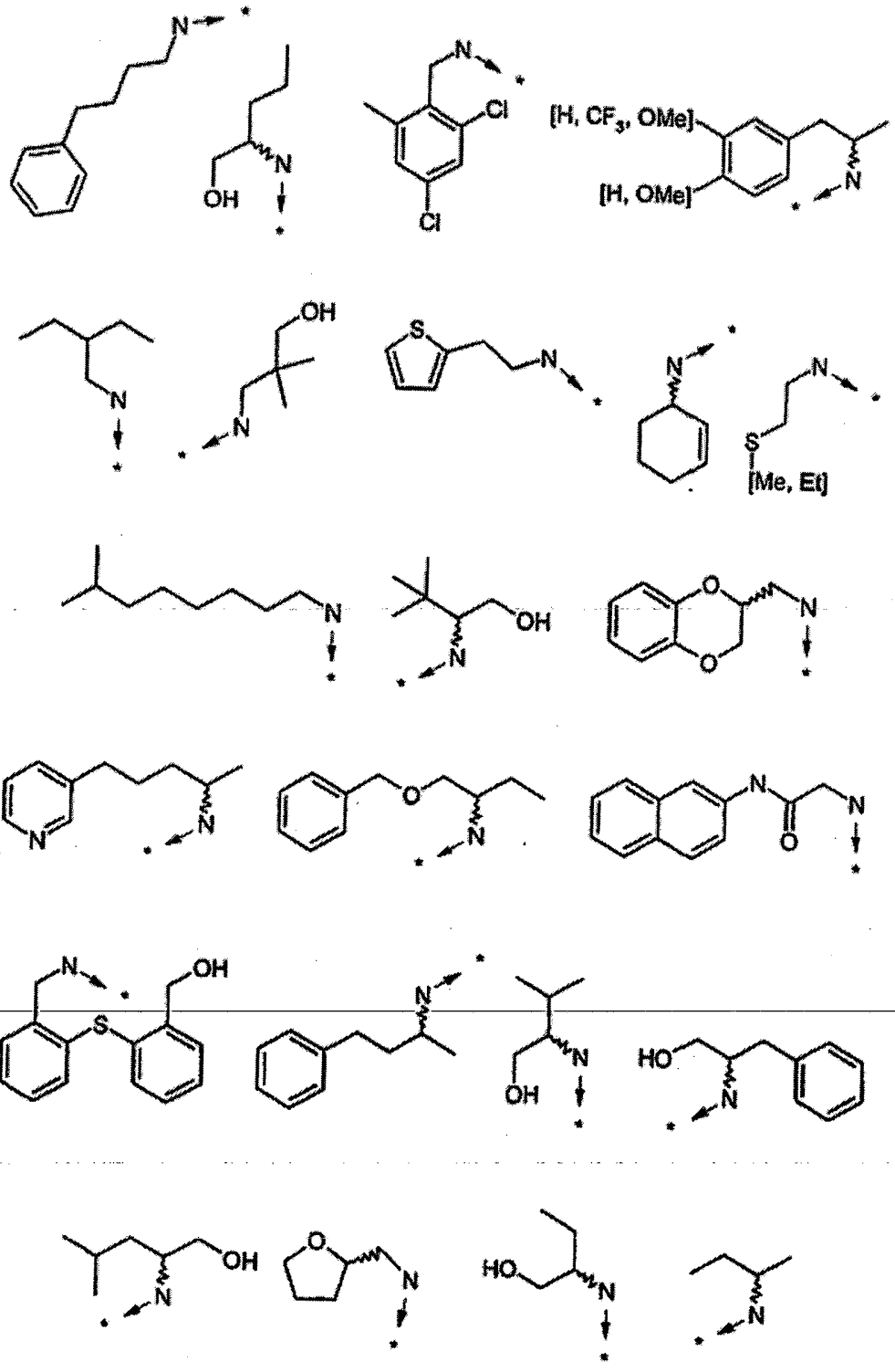



HO
s = 2-6

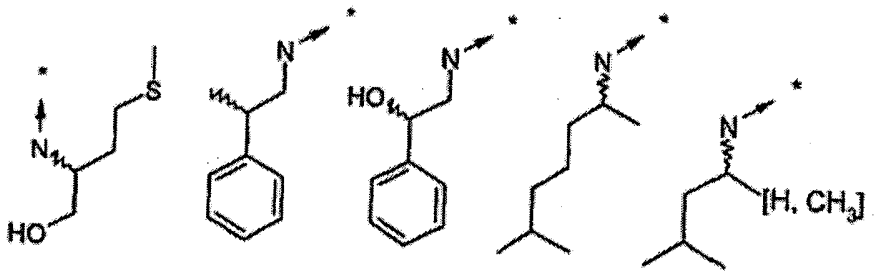
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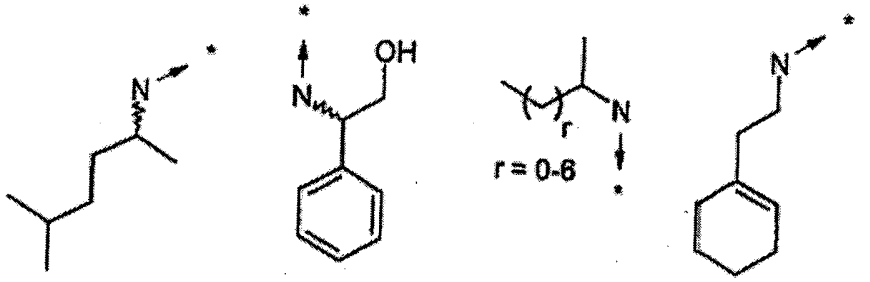

[H, Br, OMe]
[H, OMe]
[H, Br, OMe]
[H, OMe]
NC
[H, Me]
HO
[H, OMe, Br]
[H, OMe]
[H, OMe]
[Me, Et]
[O, S]
[Me, Et]
[Me, Et]
OH

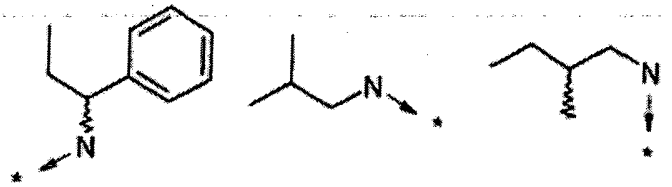
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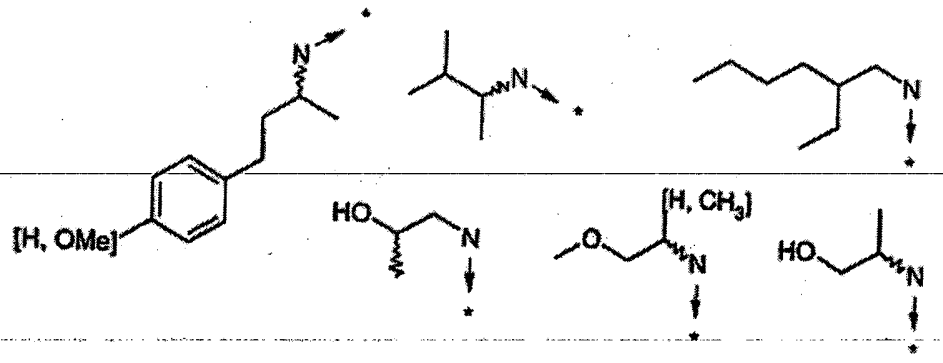


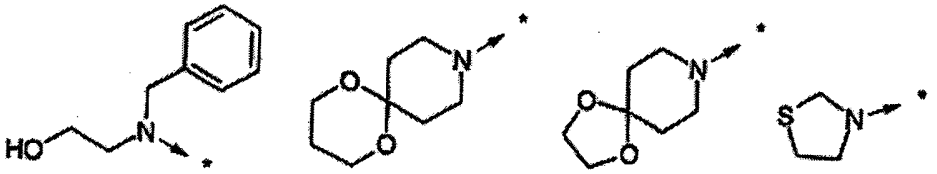
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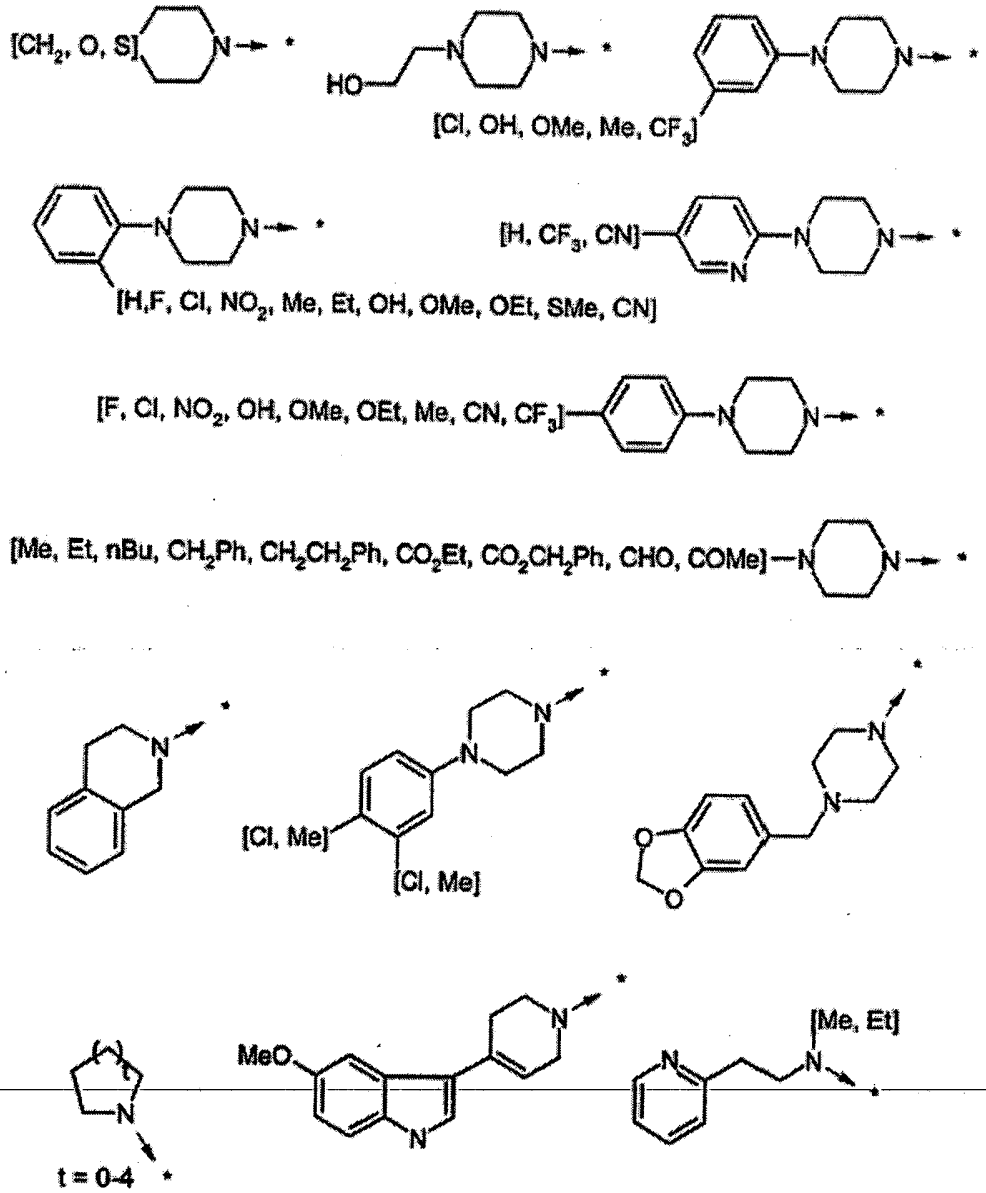


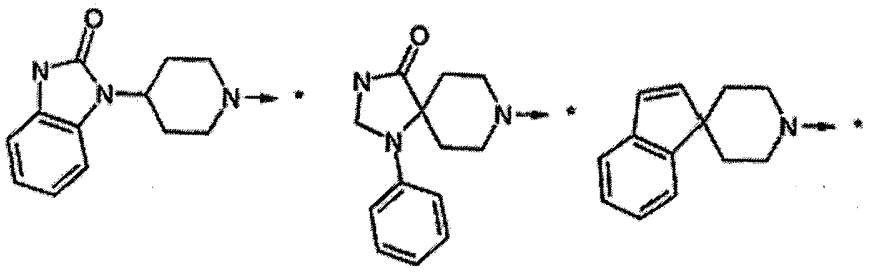


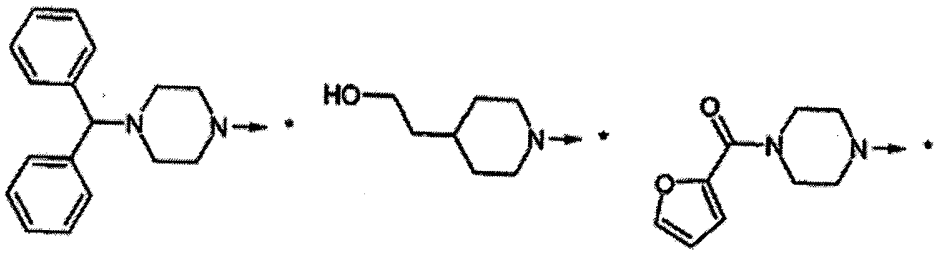


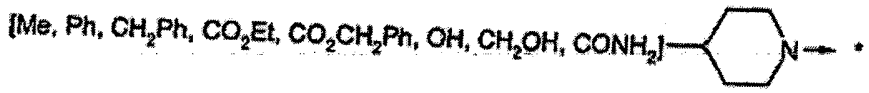


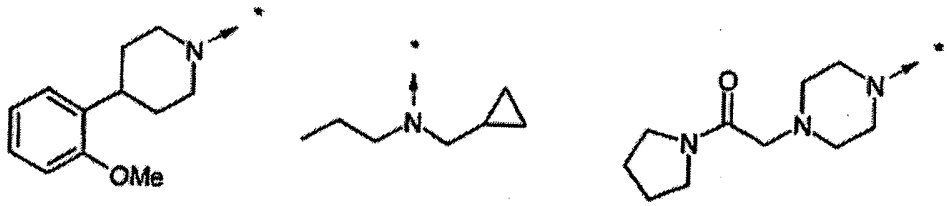
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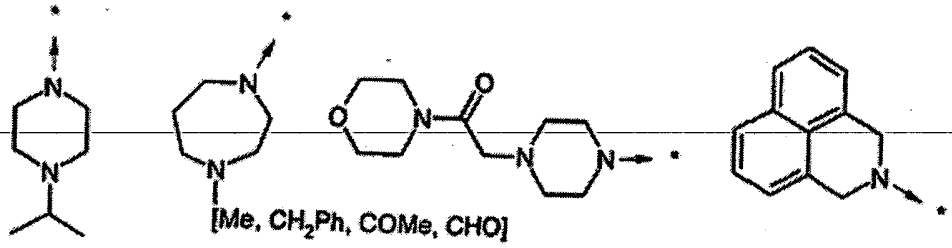

[CH2, O, S]
HO
[Cl, OH, OMe, Me, CF3]
[H,F, Cl, NO2, Me, Et, OH, OMe, OEt, SMe, CN]
[H, CF3, CN]
[F, Cl, NO2, OH, OMe, OEt, Me, CN, CF3]
[Me, Et, nBu, CH2Ph, CH2CH2Ph, CO2Et, CO2CH2Ph, CHO, COMe]
[Cl, Me]
[Cl, Me]
t = 0-4
MeO
[Me, Et]
[H, OMe]
[H, F]

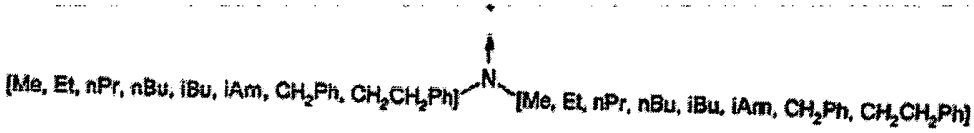


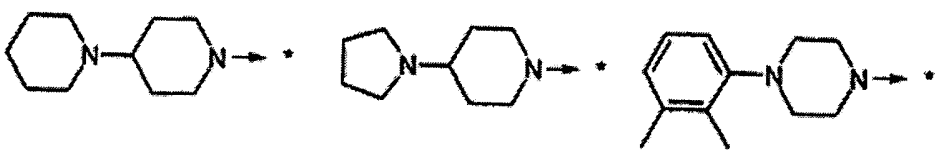

HO


[Me, Ph, CH2Ph, CO2Et, CO2CH2Ph, OH, CH2OH, CONH2]

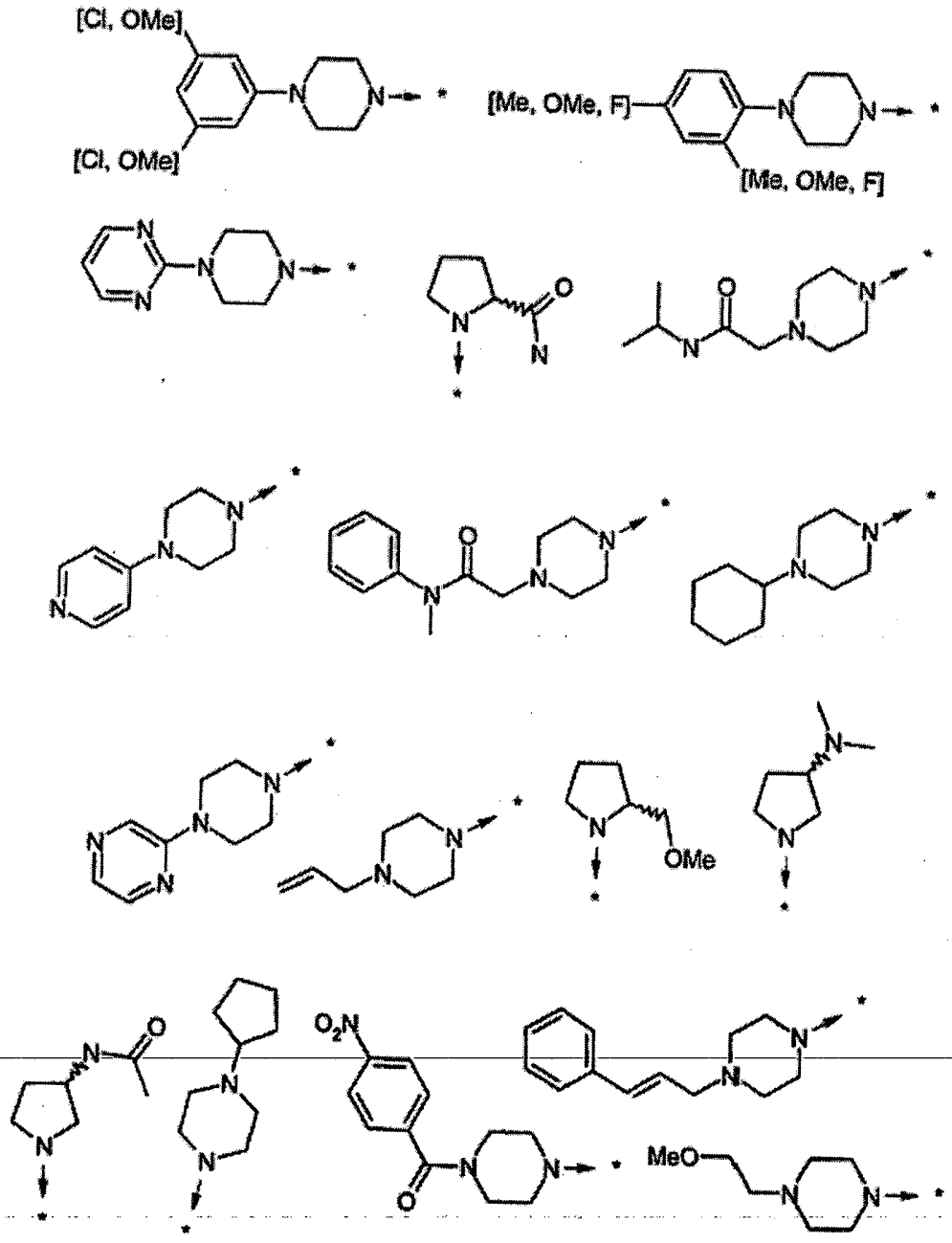

OMe

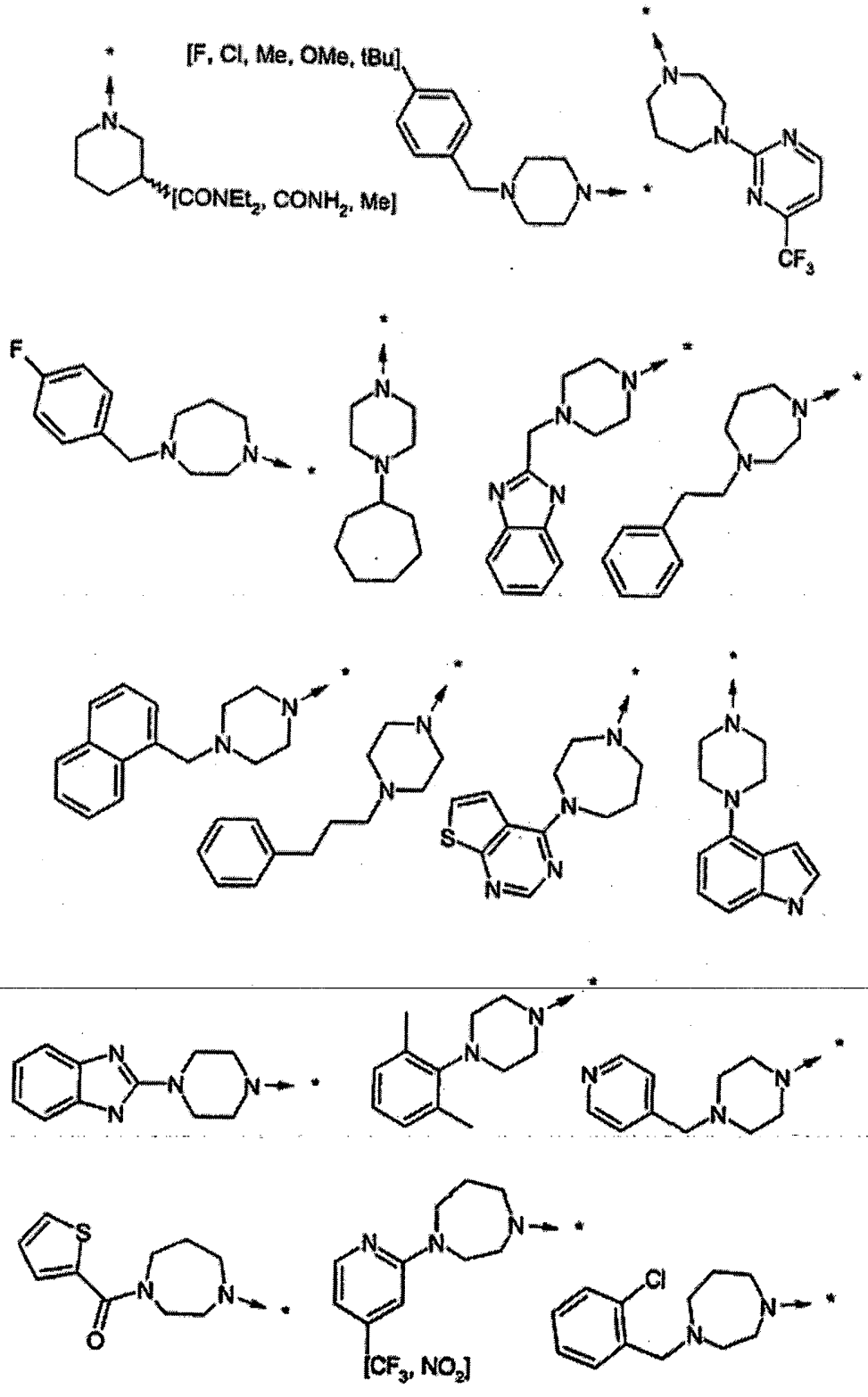

[Me, CH2Ph, COMe, CHO]


[Me, Et, nPr, nBu, iBu, iAm, CH2Ph, CH2CH2Ph]
[Me, Et, nPr, nBu, iBu, iAm, CH2Ph, CH2CH2Ph]

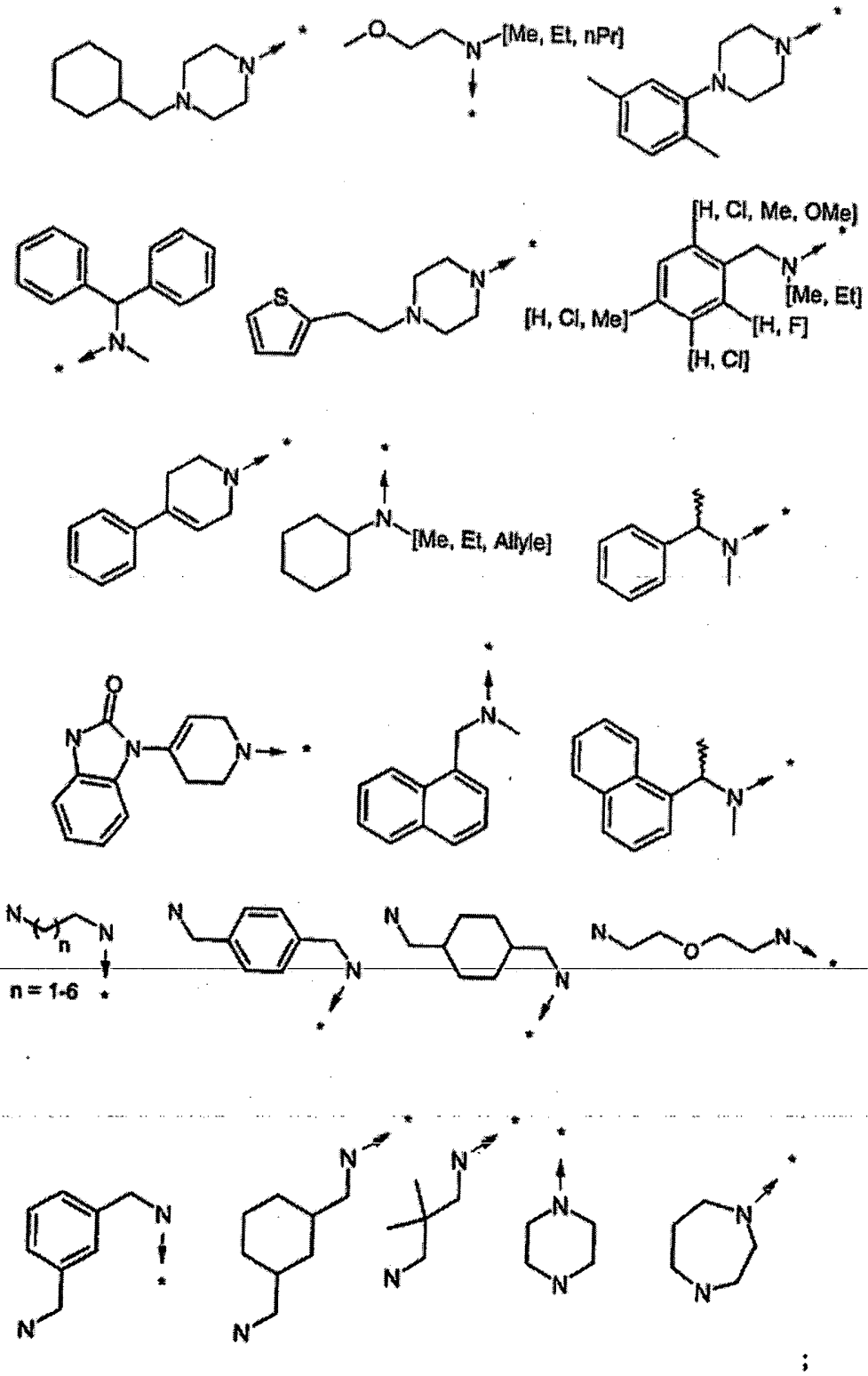


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[F, Cl, Me, OMe, tBu]
[CONEt2, CONH2, Me]
CF3
F
S
O
Cl
[CF3, NO2]

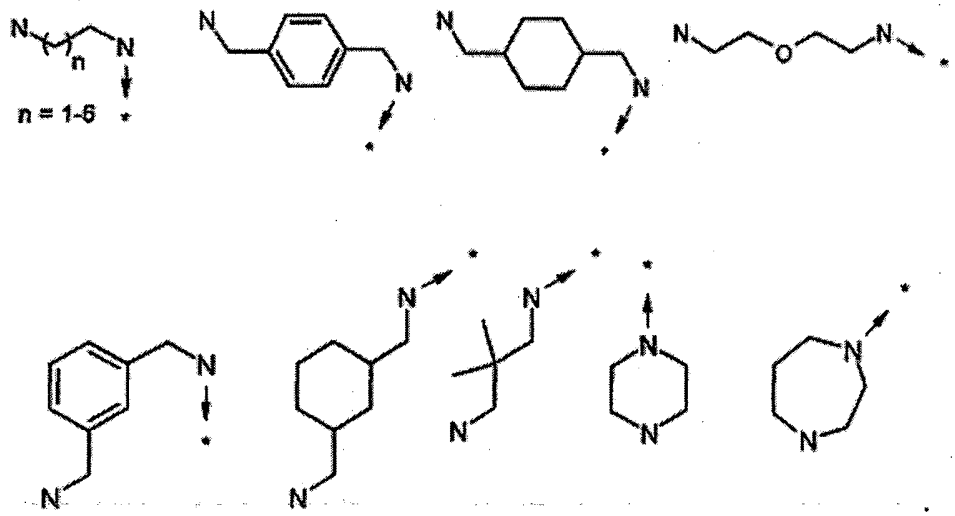
23.01.04



;

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R10 představuje jeden z následujících zbytků:

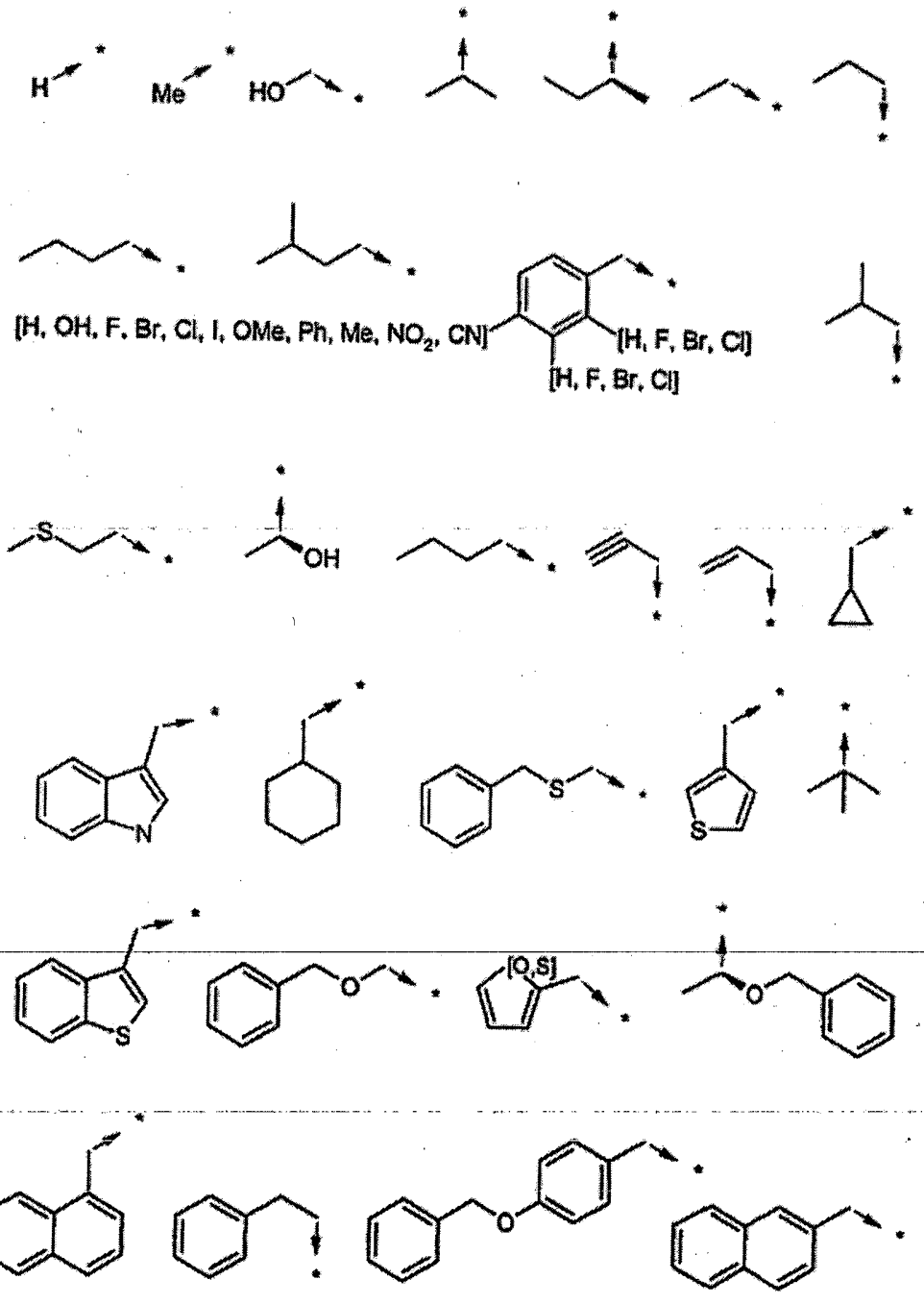


;

R11 představuje H;

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R12 představuje jeden z následujících zbytků:

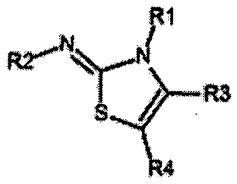


;

přičemž pro R4 platí, že pokud arylová skupina je substituována, může být substituována jednou až pětkrát (kromě vazby, která jej váže ke zbytku molekuly) zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl nebo alkoxy.

Sloučeniny podle předloženého vynálezu jsou výhodně takové, že R4 představuje H.

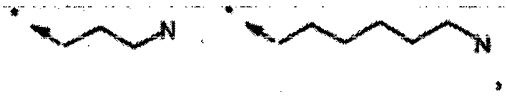
Výhodněji jsou sloučeniny podle předloženého vynálezu sloučeniny obecného vzorce (II)



(II)

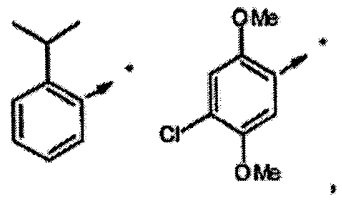
ve kterém:

- buď R1 představuje jeden z následujících zbytků

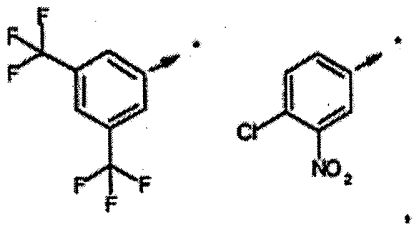


R2 představuje jeden z následujících zbytků

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R3 představuje jeden z následujících zbytků

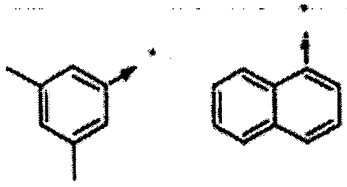


a R4 představuje H;

- nebo také R1 představuje jeden z následujících zbytků



R2 představuje jeden z následujících zbytků

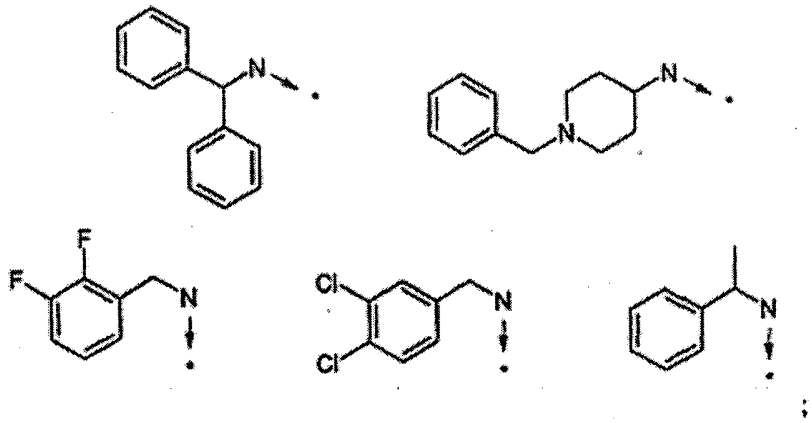


R3 představuje COR5,

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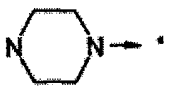
R4 představuje H,

a R5 představuje jeden z následujících zbytků



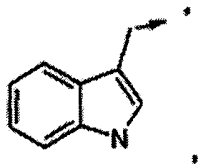
;

- nebo nakonec R1 představuje zbytek -C(R11)(R12)-CO-R10 ve kterém



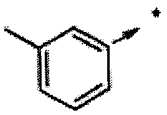
R10 představuje zbytek

R11 představuje H

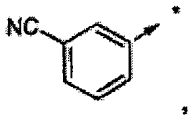


a R12 představuje zbytek

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R2 představuje zbytek

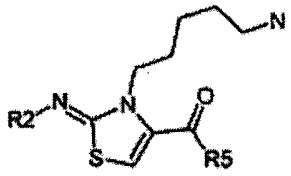


R3 představuje zbytek

a R4 představuje H.

Předložený vynález se týká také sloučenin

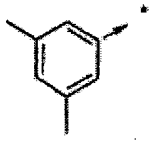
- obecného vzorce

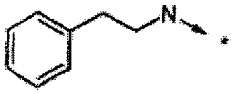


(I)

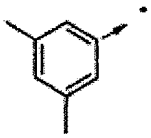
ve kterém:

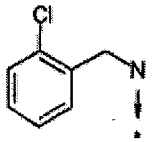
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- R2 představuje zbytek  a R5 představuje zbytek

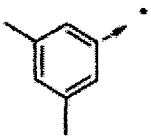


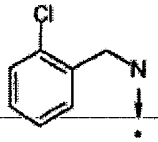
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- R2 představuje zbytek  a R5 představuje zbytek



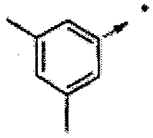
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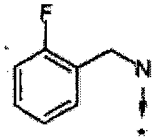
- R2 představuje zbytek  a R5 představuje zbytek



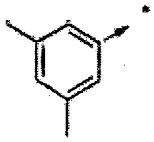
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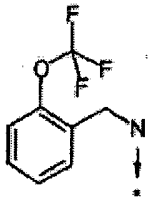
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- R2 představuje zbytek  a R5 představuje zbytek

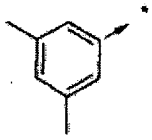


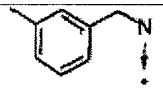
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- R2 představuje zbytek  a R5 představuje zbytek



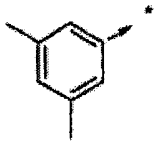
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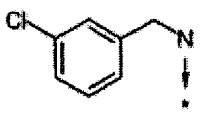
- R2 představuje zbytek  a R5 představuje zbytek



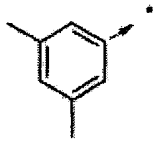
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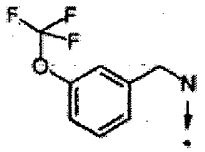
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- R2 představuje zbytek  a R5 představuje zbytek

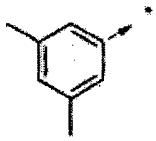


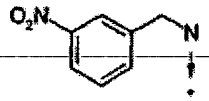
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- R2 představuje zbytek  a R5 představuje zbytek

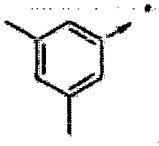


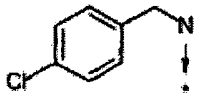
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- R2 představuje zbytek  a R5 představuje zbytek



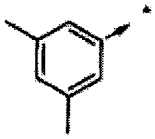
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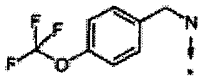
- R2 představuje zbytek  a R5 představuje zbytek



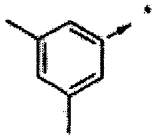
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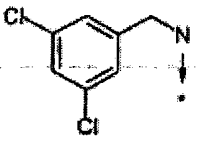
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- R2 představuje zbytek  a R5 představuje zbytek

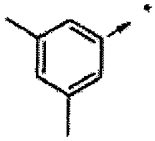


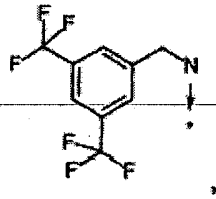
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- R2 představuje zbytek  a R5 představuje zbytek



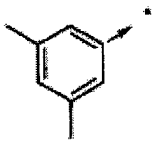
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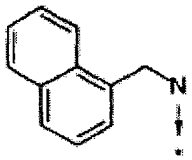
- R2 představuje zbytek  a R5 představuje zbytek



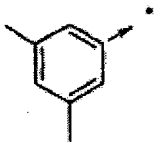
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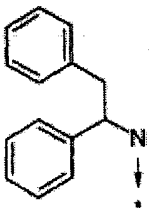
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- R2 představuje zbytek  a R5 představuje zbytek

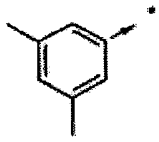


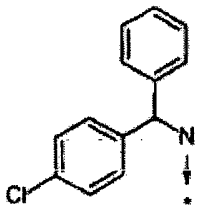
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- R2 představuje zbytek  a R5 představuje zbytek

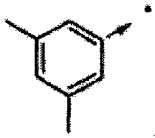


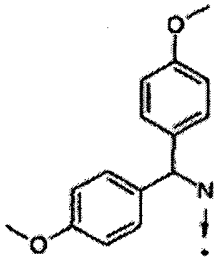
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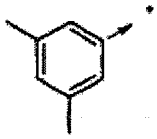
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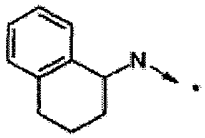


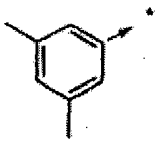
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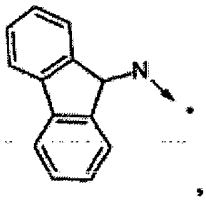
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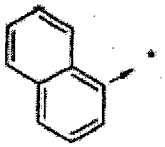


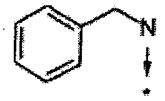
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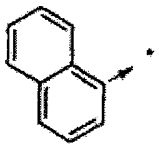


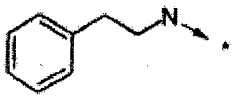
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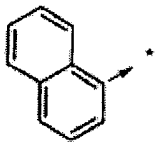


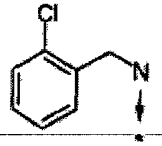
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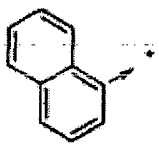


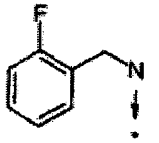
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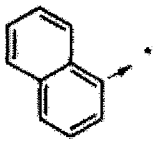


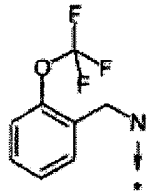
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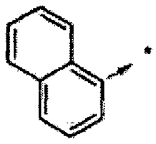


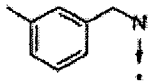
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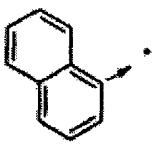


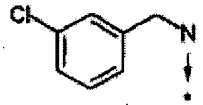
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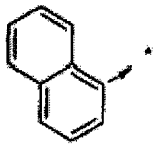


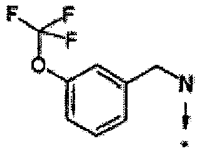
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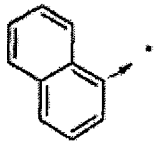
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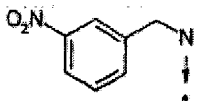


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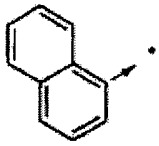


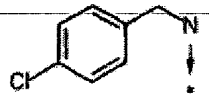
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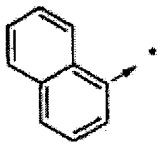
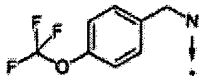


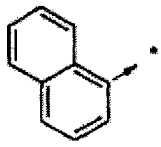
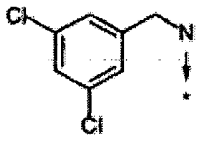
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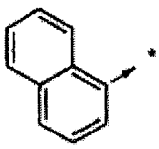
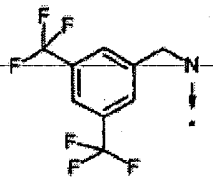
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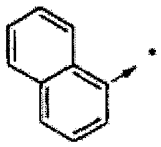
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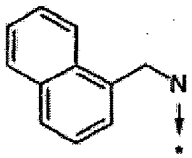
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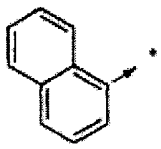
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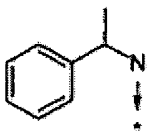
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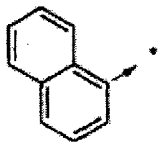
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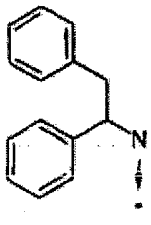
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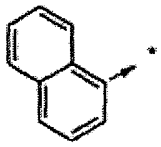


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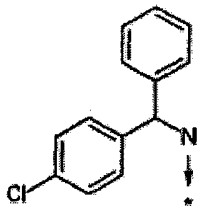


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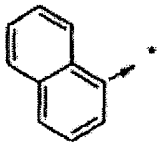




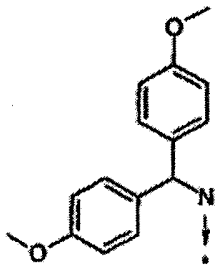
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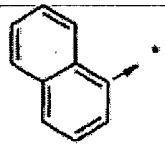
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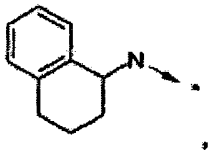
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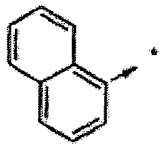
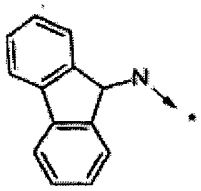


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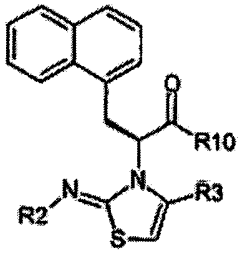


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nebo nakonec

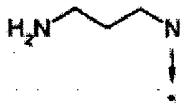
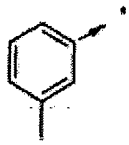
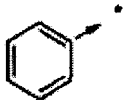
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• nebo obecného vzorce

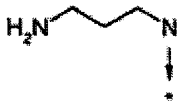
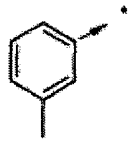
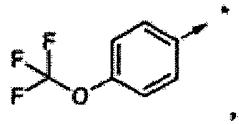


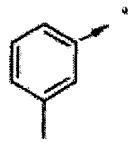
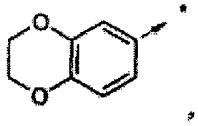
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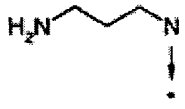
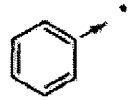
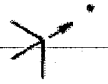
ve kterém:

- R10 představuje  , R2 představuje  a  , R3 představuje

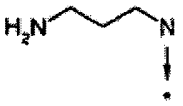
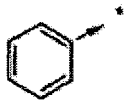
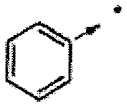
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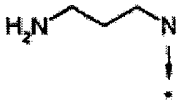
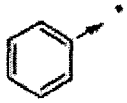
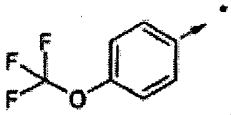
- R10 představuje  , R2 představuje  a R3 představuje  ,

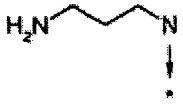
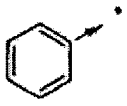
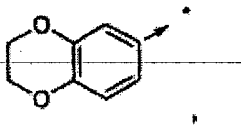
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

23.01.04

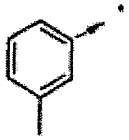
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

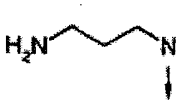
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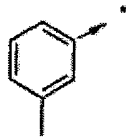


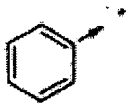
- R10 představuje  , R2 představuje a



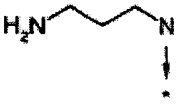
R3 představuje

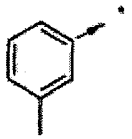


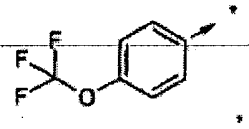
- R10 představuje  , R2 představuje a



R3 představuje

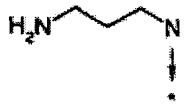
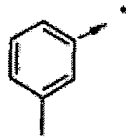


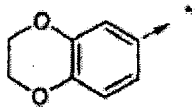
- R10 představuje  , R2 představuje a

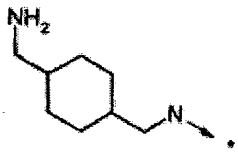
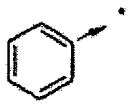


R3 představuje

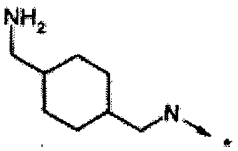
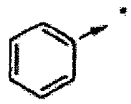
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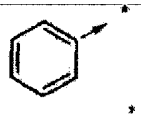
- R10 představuje  , R2 představuje  a

R3 představuje  .

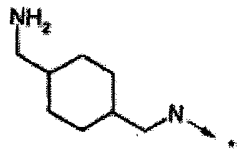
- R10 představuje  , R2 představuje  a

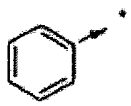
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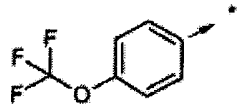
- R10 představuje  , R2 představuje  a

R3 představuje  .

23.01.04

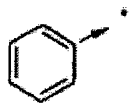


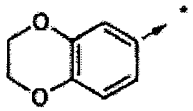
- R10 představuje , R2 představuje  a



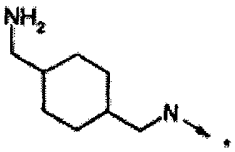
R3 představuje ,

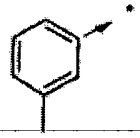


- R10 představuje , R2 představuje  a



R3 představuje ,

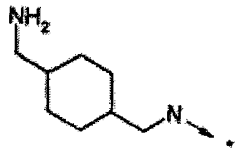


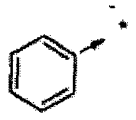
- R10 představuje , R2 představuje  a

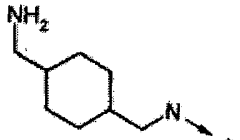
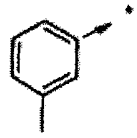


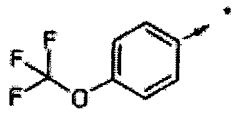
R3 představuje ,

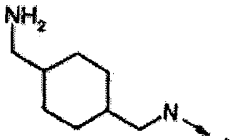
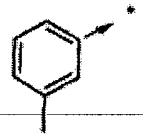
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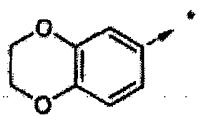
- R10 představuje  , R2 představuje  a

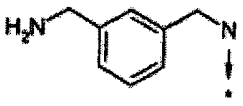
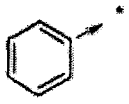
R3 představuje  ,

- R10 představuje  , R2 představuje  a

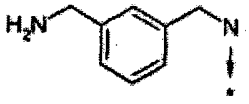
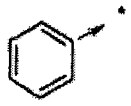
R3 představuje  ,

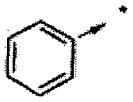
- R10 představuje  , R2 představuje  a

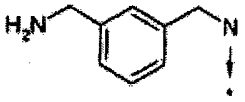
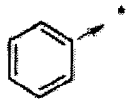
R3 představuje  ,

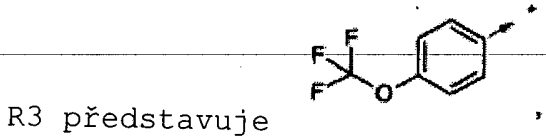
- R10 představuje  , R2 představuje  a

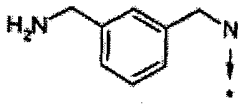
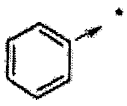
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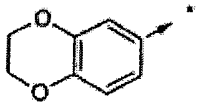
- R10 představuje  , R2 představuje  a

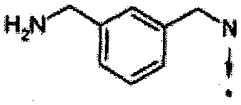
R3 představuje  ,

- R10 představuje  , R2 představuje  a

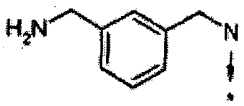
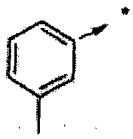
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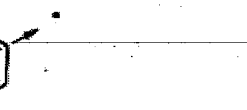
- R10 představuje  , R2 představuje  a

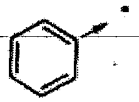
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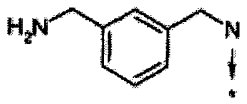
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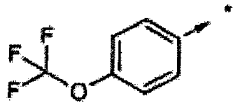
 , R2 představuje  a

- R10 představuje  , R2 představuje a

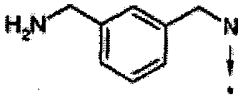
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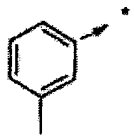


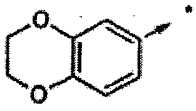
- R10 představuje  , R2 představuje a



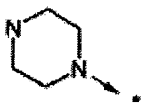
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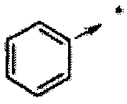


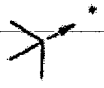
- R10 představuje , R2 představuje  a



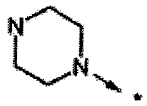
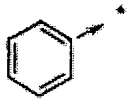
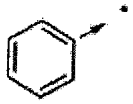
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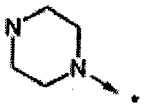
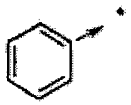
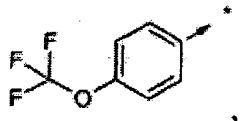


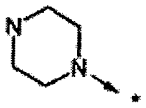
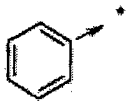
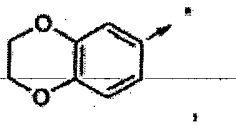
- R10 představuje , R2 představuje  a R3

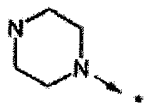


představuje ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

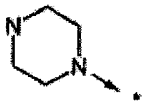
- R10 představuje  , R2 představuje  a R3 představuje  ,



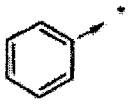

- R10 představuje ', R2 představuje a R3



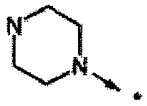
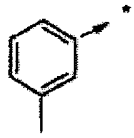
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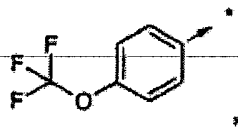

- R10 představuje ', R2 představuje a R3



představuje ',

- R10 představuje ', R2 představuje a R3

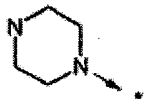


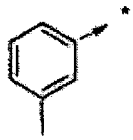
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představuje

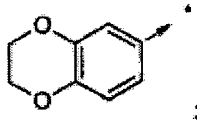
nebo nakonec

23.01.04



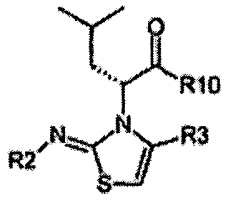


- R10 představuje ', R2 představuje a R3



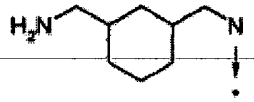
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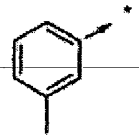
- nebo obecného vzorce



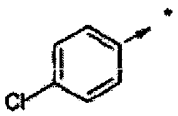
(iii)

ve kterém:

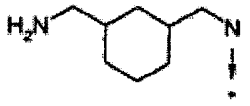
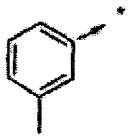
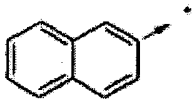


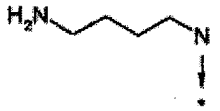
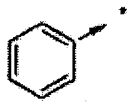


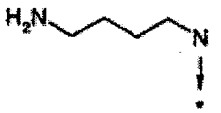
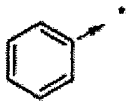
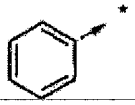
- R10 představuje ', R2 představuje a

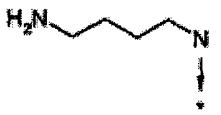


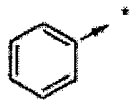
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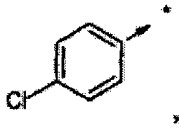
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

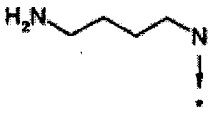
- R10 představuje  , R2 představuje  a R3 představuje  ,

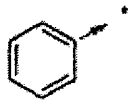


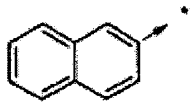
- R10 představuje  R2 představuje a R3



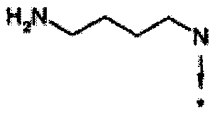
představuje

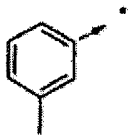


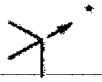
- R10 představuje  R2 představuje a R3



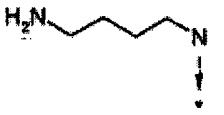
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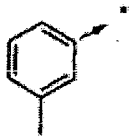


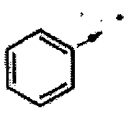
- R10 představuje  R2 představuje a R3



představuje

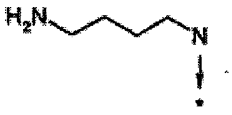
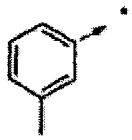
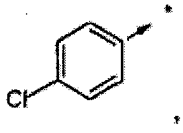


- R10 představuje  R2 představuje a R3

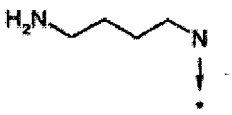
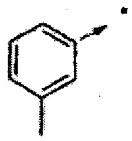
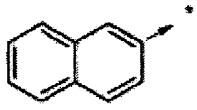


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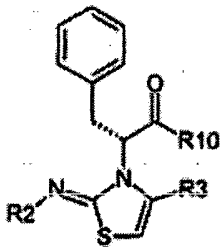
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- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ,

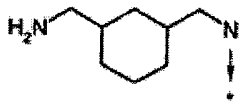
- nebo obecného vzorce

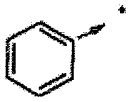


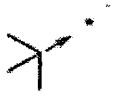
(Iv)

ve kterém

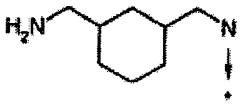
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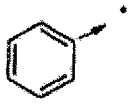


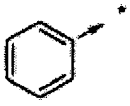
- R10 představuje  R2 představuje a



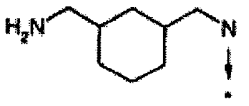
R3 představuje

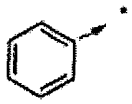


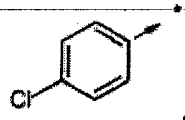
- R10 představuje  R2 představuje a



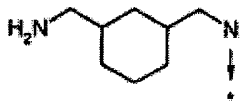
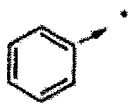
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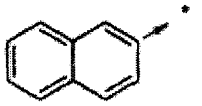


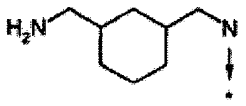
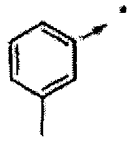
- R10 představuje  R2 představuje a



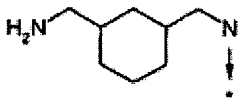
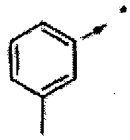
R3 představuje

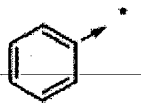
- R10 představuje  R2 představuje  a

R3 představuje 

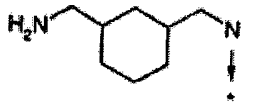
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R3 představuje 

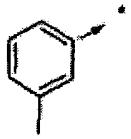
- R10 představuje  R2 představuje  a

R3 představuje 

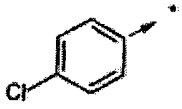
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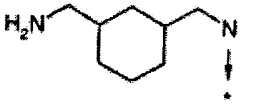
- R10 představuje



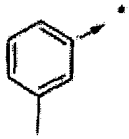
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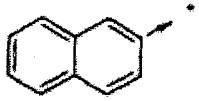
R3 představuje



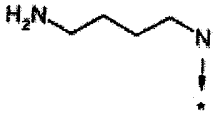
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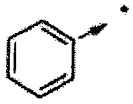
R2 představuje a



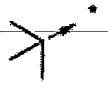
R3 představuje



- R10 představuje

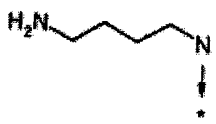
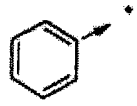
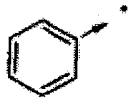


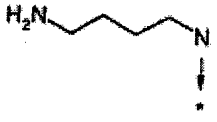
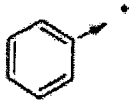
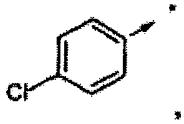
R2 představuje a R3

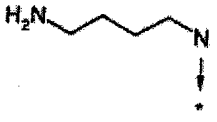
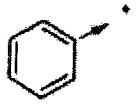
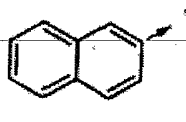


představuje

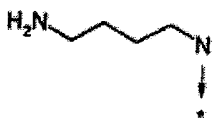
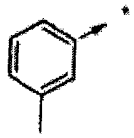
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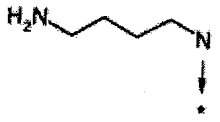
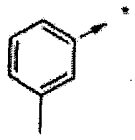
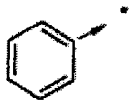
- R10 představuje  , R2 představuje  a R3 představuje  ,

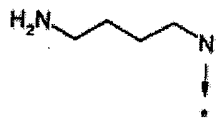
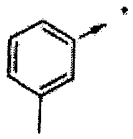
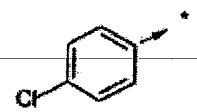
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

23.01.04

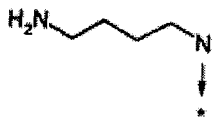
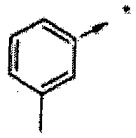
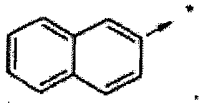
- R10 představuje  R2 představuje  a R3 představuje 

- R10 představuje  R2 představuje  a R3 představuje 

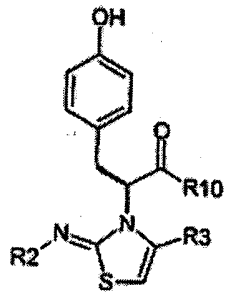
- R10 představuje  R2 představuje  a R3 představuje 

nebo nakonec

23.09.04

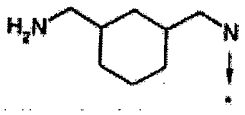
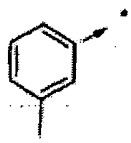
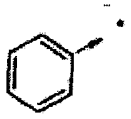
- R10 představuje  , R2 představuje  a R3 představuje  ;

- nebo obecného vzorce

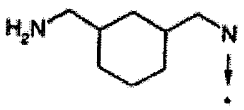


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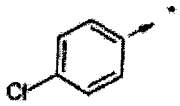
ve kterém

- R10 představuje  , R2 představuje  a R3 představuje  ,

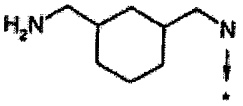
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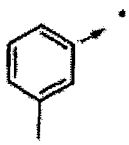


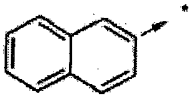
- R10 představuje , R2 představuje  a



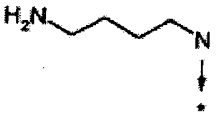
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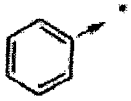


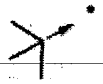
- R10 představuje , R2 představuje  a



R3 představuje ,

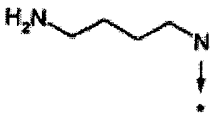


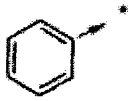
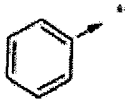
- R10 představuje , R2 představuje  a R3

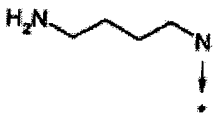


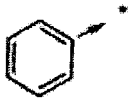
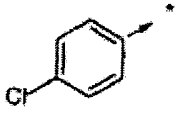
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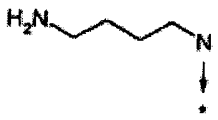
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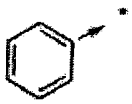
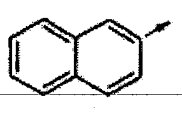


- R10 představuje  , R2 představuje a R3 představuje  ,

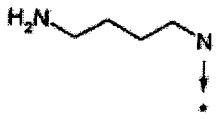


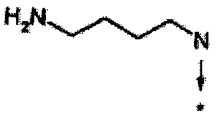
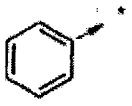
- R10 představuje  , R2 představuje a R3 představuje  ,

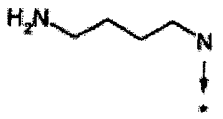
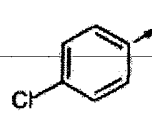


- R10 představuje  , R2 představuje a R3 představuje  ,

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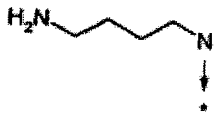
- R10 představuje  , R2 představuje  a R3 představuje  ,

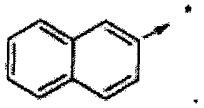
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

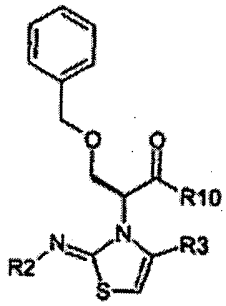
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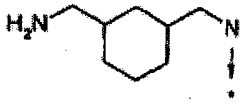
- R10 představuje  R2 představuje  a R3 představuje ;

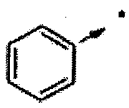
- nebo obecného vzorce



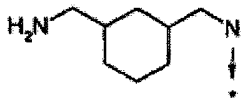
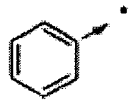
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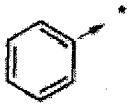
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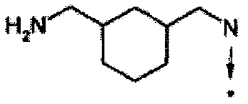
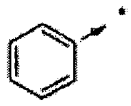


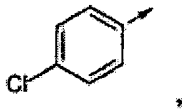
- R10 představuje  R2 představuje a  R3 představuje ,

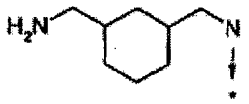
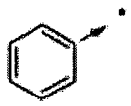
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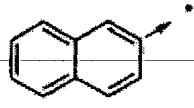
- R10 představuje  R2 představuje  a

R3 představuje 

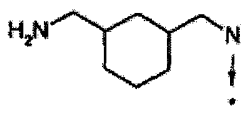
- R10 představuje  R2 představuje  a

R3 představuje 

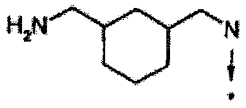
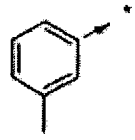
- R10 představuje  R2 představuje  a

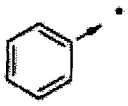
R3 představuje 

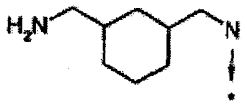
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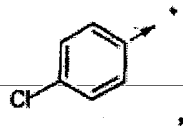
- R10 představuje  R2 představuje  a

R3 představuje 

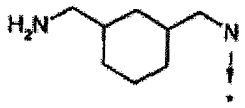
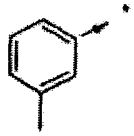
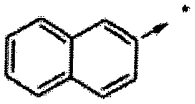
- R10 představuje  R2 představuje  a

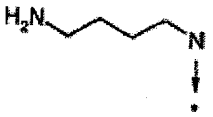
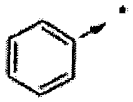
R3 představuje 

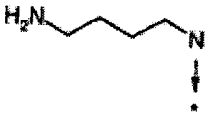
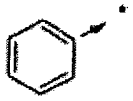
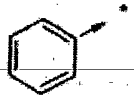
- R10 představuje  R2 představuje  a

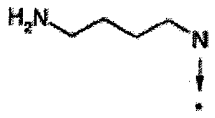
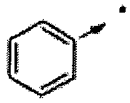
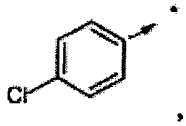
R3 představuje 

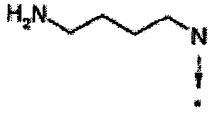
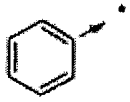
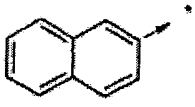
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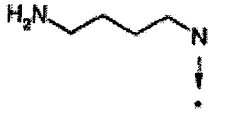
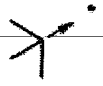
- R10 představuje  , R2 představuje  a R3 představuje  ,

-R10 představuje  , R2 představuje  a R3 představuje  ,

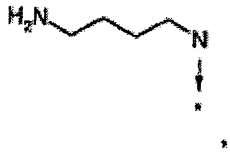
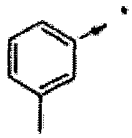
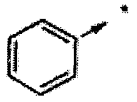
- R10 představuje  , R2 představuje  a R3 představuje  .

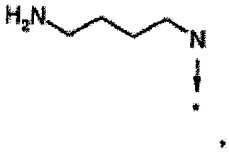
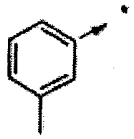
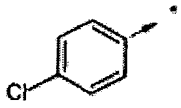
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

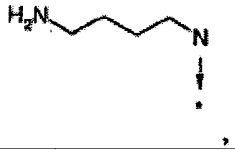
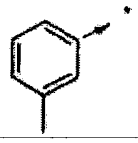
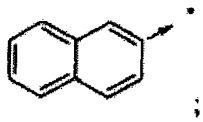
- R10 představuje  , R2 představuje  a R3 představuje  .

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- R10 představuje  R2 představuje  a R3 představuje  ,

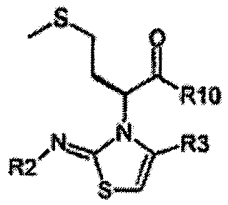
- R10 představuje  R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  R2 představuje  a R3 představuje  ;

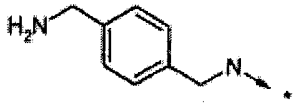
- nebo obecného vzorce

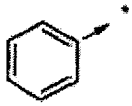
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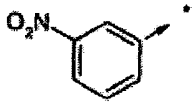


(vii)

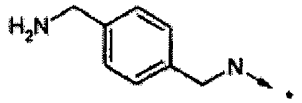
ve kterém

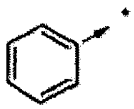


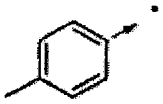
- R10 představuje ' R2 představuje  a



R3 představuje ,

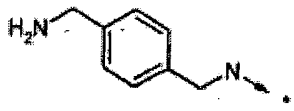


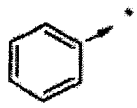
- R10 představuje ' R2 představuje  a

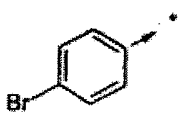


R3 představuje ,

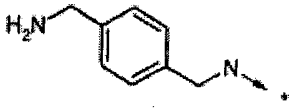
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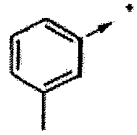


- R10 představuje , R2 představuje  a



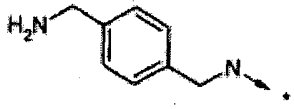
R3 představuje ,

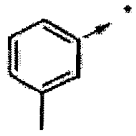


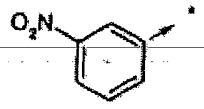
- R10 představuje , R2 představuje  a



R3 představuje ,

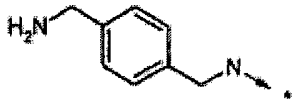


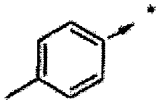
- R10 představuje , R2 představuje  a

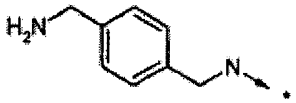
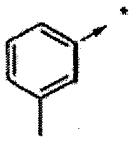


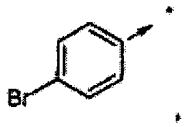
R3 představuje ,

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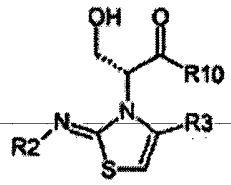
- R10 představuje  , R2 představuje  a

R3 představuje  ,

- R10 představuje  , R2 představuje  a

R3 představuje  ,

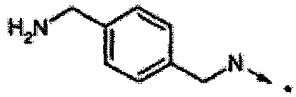
• nebo obecného vzorce

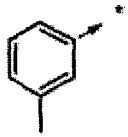


(viii)

ve kterém:

23.01.04

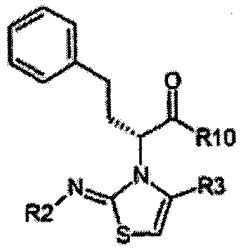


- R10 představuje  R2 představuje a



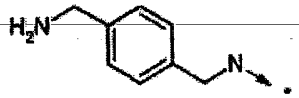
R3 představuje

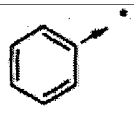
• nebo obecného vzorce



(ix)

ve kterém:

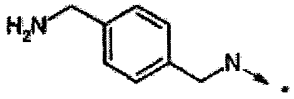


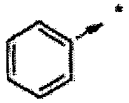
- R10 představuje  R2 představuje a

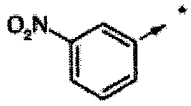


R3 představuje

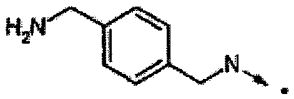
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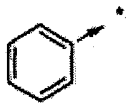


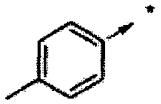
- R10 představuje  , R2 představuje a



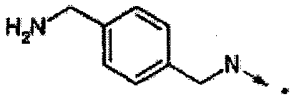
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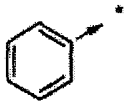


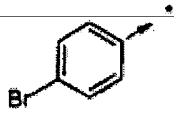
- R10 představuje  , R2 představuje a



R3 představuje ,

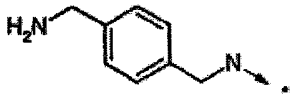


- R10 představuje  , R2 představuje a



R3 představuje ,

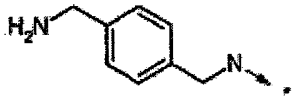
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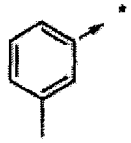


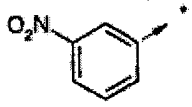
- R10 představuje , R2 představuje  a



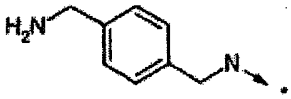
R3 představuje ,

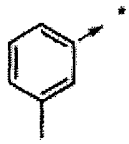


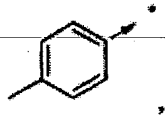
- R10 představuje , R2 představuje  a



R3 představuje ,



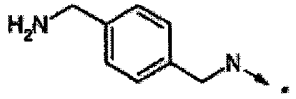
- R10 představuje , R2 představuje  a

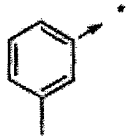


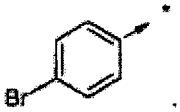
R3 představuje ,

nebo nakonec

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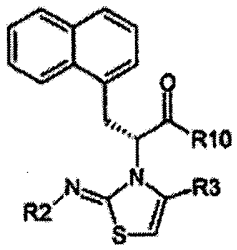


- R10 představuje  R2 představuje a



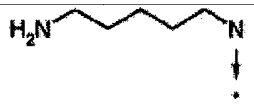
R3 představuje ;

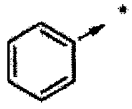
• nebo obecného vzorce

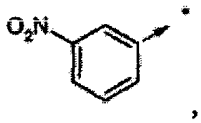


(x)

ve kterém



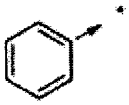
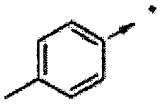
R10 představuje  R2 představuje a R3

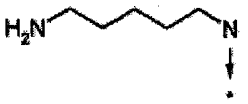


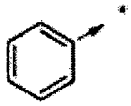
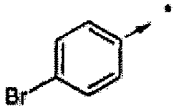
představuje

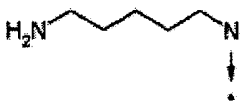
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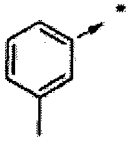
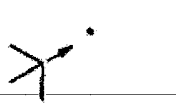


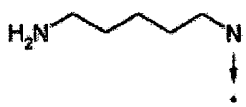
R10 představuje  R2 představuje a R3 představuje  ,

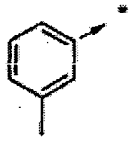
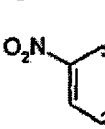


R10 představuje  R2 představuje a R3 představuje  ,



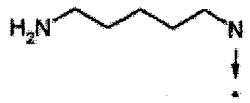
R10 představuje  R2 představuje a R3 představuje  ,

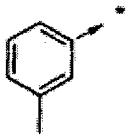
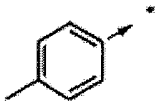


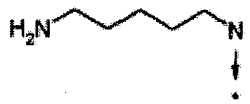
R10 představuje  R2 představuje a R3 představuje  ,

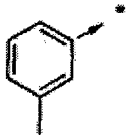
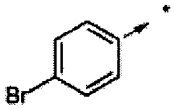
R10 představuje R2 představuje a R3 představuje ,

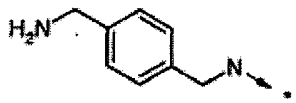
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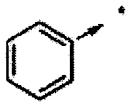
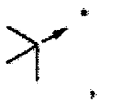


R10 představuje  R2 představuje a R3 představuje  ,

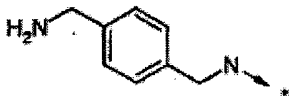
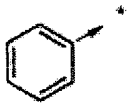


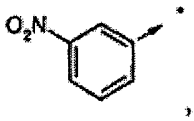
R10 představuje  R2 představuje a R3 představuje  ,

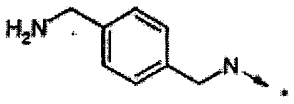
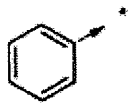


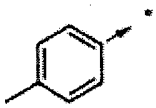
R10 představuje  R2 představuje a R3 představuje  .

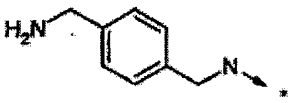
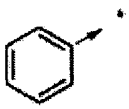
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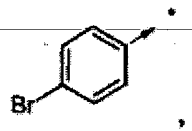
R10 představuje  R2 představuje  a

R3 představuje  ,

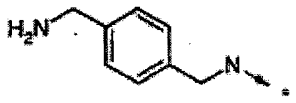
R10 představuje  R2 představuje  a

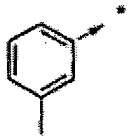
R3 představuje  ,

R10 představuje  R2 představuje  a

R3 představuje  ,

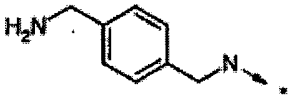
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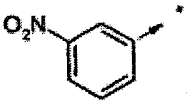
R10 představuje , R2 představuje  a



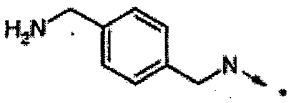
R3 představuje ,

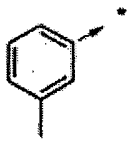


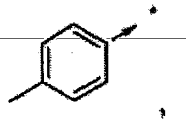
R10 představuje , R2 představuje  a



R3 představuje ,

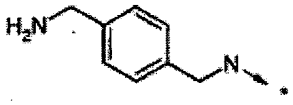


R10 představuje , R2 představuje  a

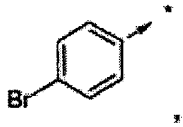


R3 představuje ,

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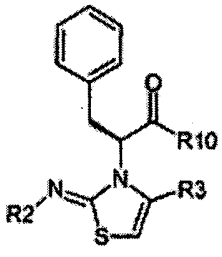


R10 představuje  , R2 představuje a



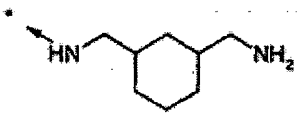
R3 představuje ,

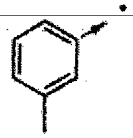
• nebo obecného vzorce

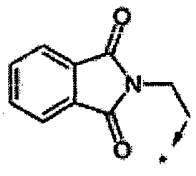


(xi)

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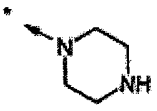
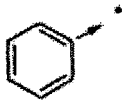
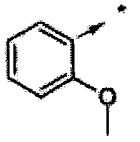


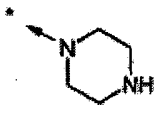
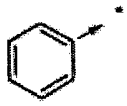
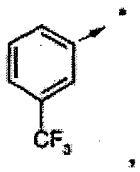
- R10 představuje  , R2 představuje a

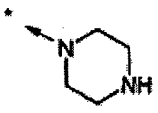
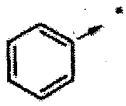
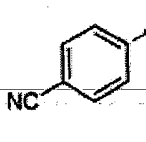


R3 představuje ,

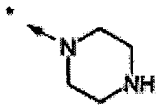
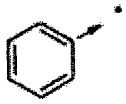
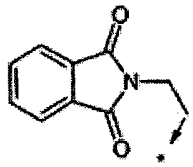
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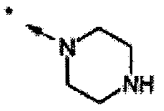
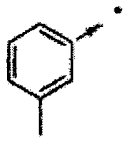
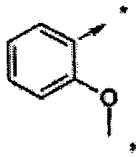
- R10 představuje  , R2 představuje  a R3 představuje  ,

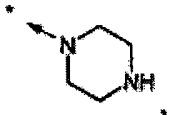
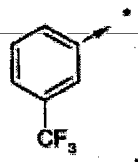
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

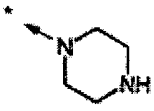
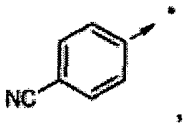
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- R10 představuje  , R2 představuje  a R3 představuje  ,

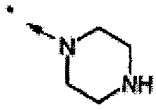
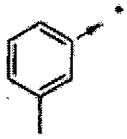
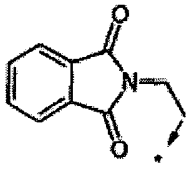
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje * ** a R3 představuje  ,

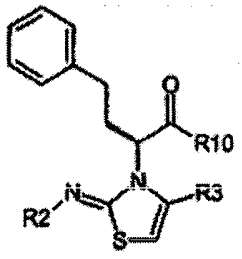
23.01.04

- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ;

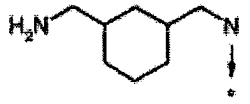
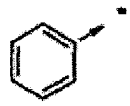
- nebo obecného vzorce

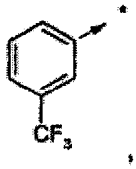


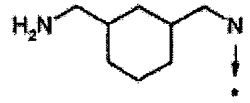
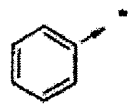
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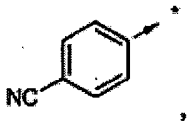
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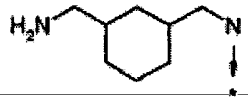
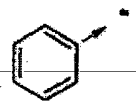
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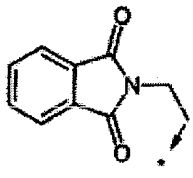
- R10 představuje  , R2 představuje  a

R3 představuje  ,

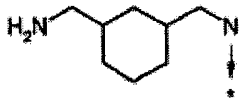
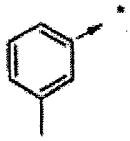
- R10 představuje  , R2 představuje  a

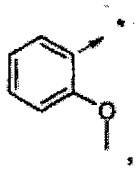
R3 představuje  ,

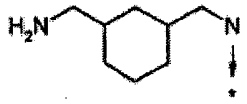
- R10 představuje  , R2 představuje  a

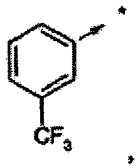
R3 představuje  ,

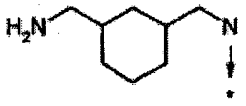
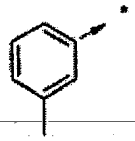
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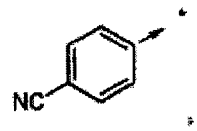
- R10 představuje  , R2 představuje  a

R3 představuje  ,

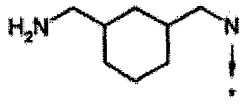
- R10 představuje  , R2 představuje  a

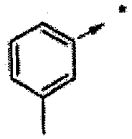
R3 představuje  ,

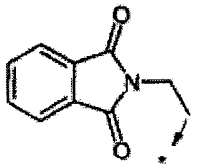
- R10 představuje  , R2 představuje  a

R3 představuje 

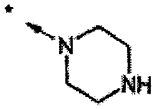
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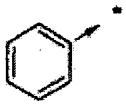


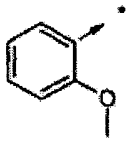
- R10 představuje  R2 představuje a



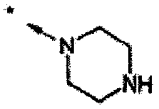
R3 představuje

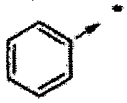


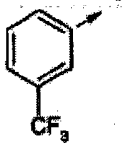
-R10 představuje  R2 představuje a R3



představuje

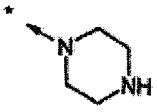
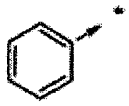
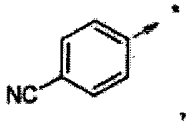


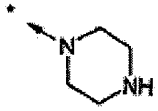
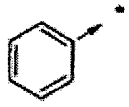
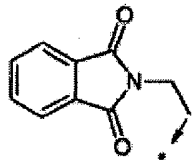
- R10 představuje  R2 představuje a R3

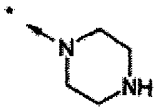
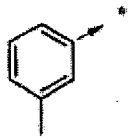
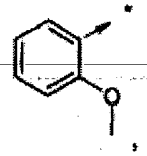


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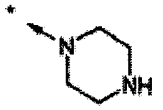
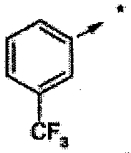
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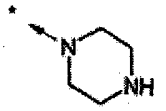
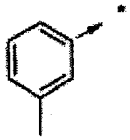
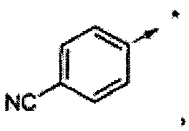
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

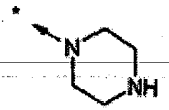
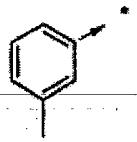
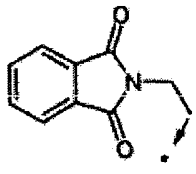
- R10 představuje  , R2 představuje  a R3 představuje  ,

23.04.04

- R10 představuje  , R2 představuje  a R3 představuje  ,

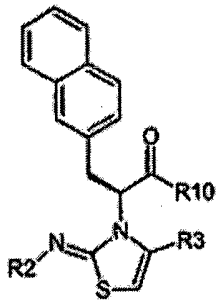
- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ;

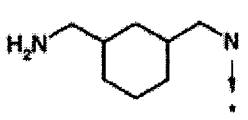
- nebo obecného vzorce

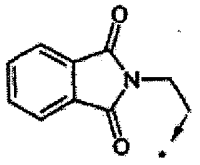
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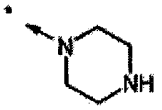
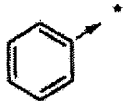
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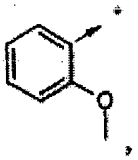
ve kterém:

- R10 představuje  , R2 představuje  a



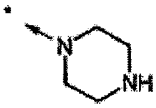
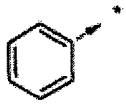
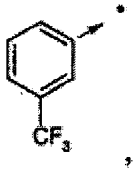
R3 představuje

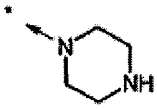
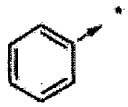
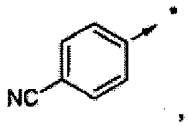
- R10 představuje  , R2 představuje  a R3

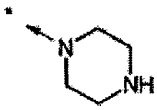
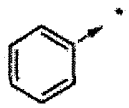
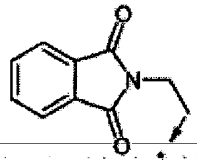


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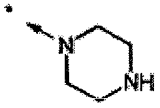
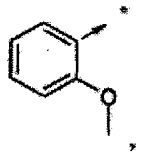
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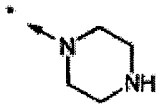
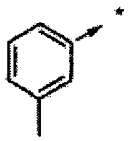
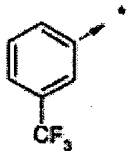
- R10 představuje  , R2 představuje  a R3 představuje  ,

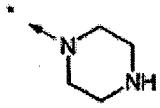
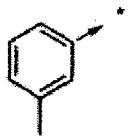
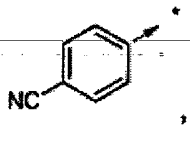
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

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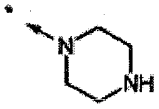
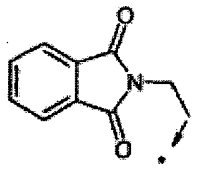
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

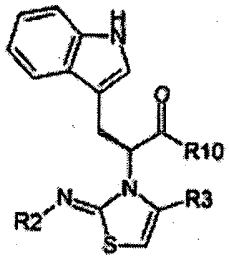
- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

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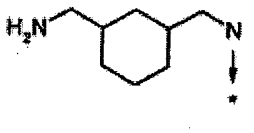
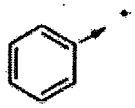
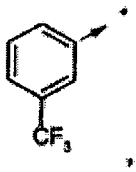
- R10 představuje  , R2 představuje  a R3 představuje  ;

• nebo obecného vzorce

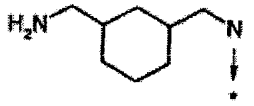


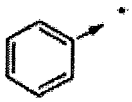
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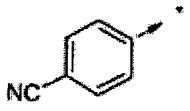
ve kterém:

- R10 představuje  , R2 představuje  a R3 představuje  ,

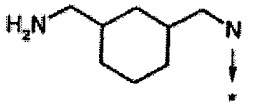
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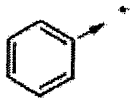


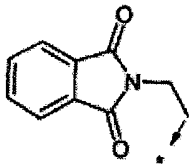
- R10 představuje , R2 představuje  a



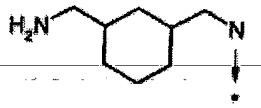
R3 představuje ,

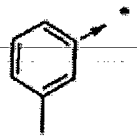


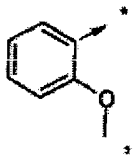
- R10 představuje , R2 představuje  a



R3 představuje ,

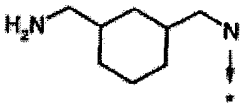


- R10 představuje , R2 představuje  a



R3 představuje ,

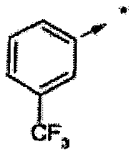
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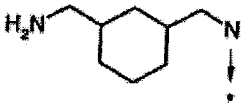
- R10 představuje



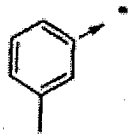
R2 představuje a



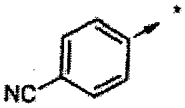
R3 představuje ,



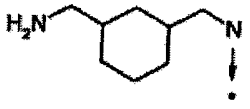
- R10 představuje



R2 představuje a



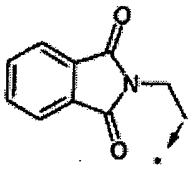
R3 představuje ,



- R10 představuje

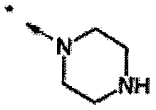
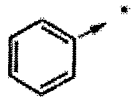
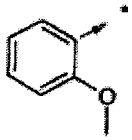


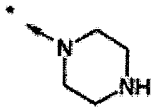
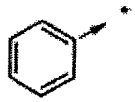
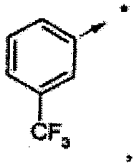
R2 představuje a

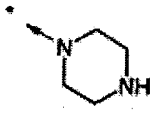
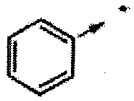
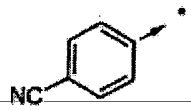


R3 představuje ,

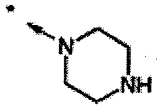
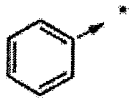
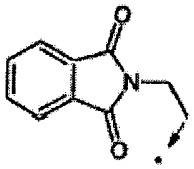
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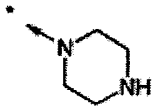
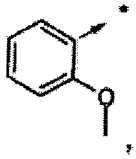
- R10 představuje  , R2 představuje  a R3 představuje 

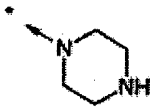
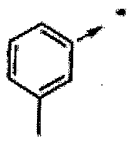
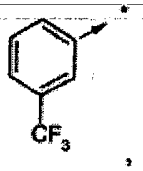
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

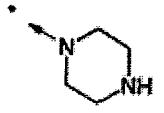
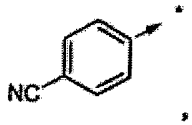
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- R10 představuje  , R2 představuje  a R3 představuje  ,

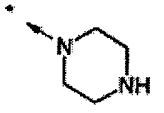
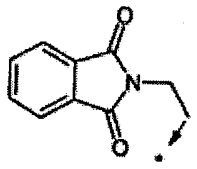
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  .

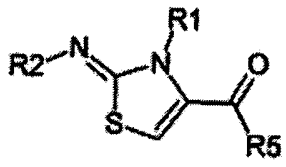
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- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ;

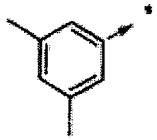
nebo konečně obecného vzorce

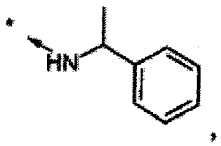


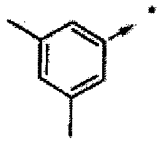
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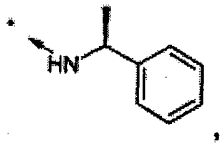
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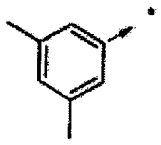
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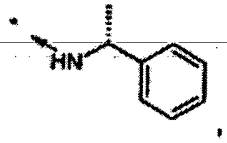
- R1 představuje  R2 představuje  a

R5 představuje 

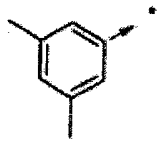
- R1 představuje  R2 představuje  a

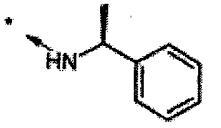
R5 představuje 

- R1 představuje  R2 představuje  a

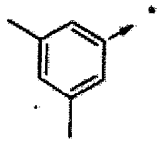
R5 představuje 

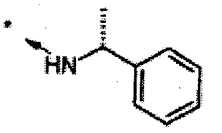
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- R1 představuje  R2 představuje  a

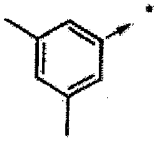


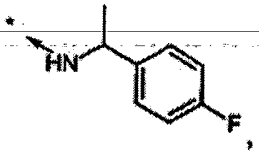
R5 představuje

- R1 představuje  R2 představuje  a



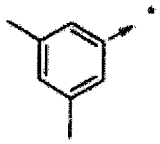
R5 představuje

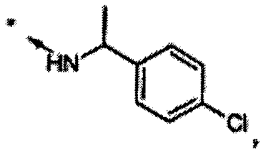
- R1 představuje  R2 představuje  a

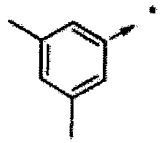


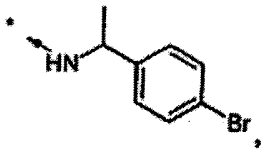
R5 představuje

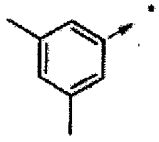
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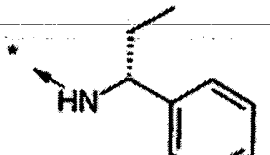
- R1 představuje  R2 představuje  a

R5 představuje 

- R1 představuje  R2 představuje  a

R5 představuje 

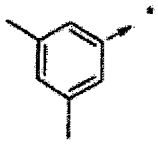
- R1 představuje  R2 představuje  a

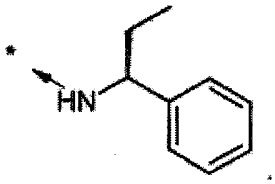


R5 představuje

nebo nakonec

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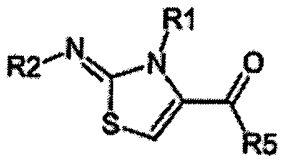
- R1 představuje  , R2 představuje  a



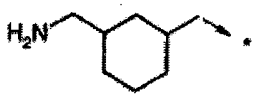
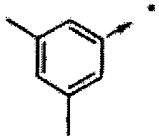
R5 představuje ;

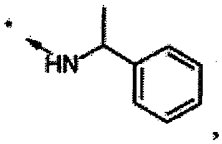
nebo soli jedné z těchto sloučenin.

Ještě výhodněji se předložený vynález se týká sloučeniny obecného vzorce



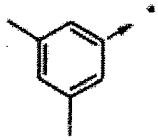
(xv)

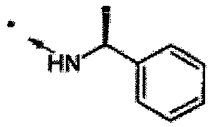
-R1 představuje  , R2 představuje  a

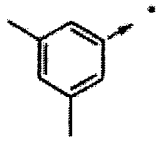


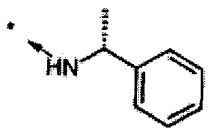
R5 představuje

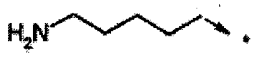
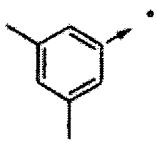
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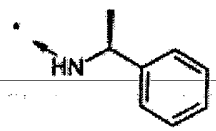
- R1 představuje  , R2 představuje  a

R5 představuje  ,

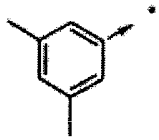
- R1 představuje  , R2 představuje  a

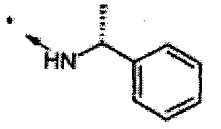
R5 představuje  ,

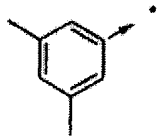
- R1 představuje  , R2 představuje  a

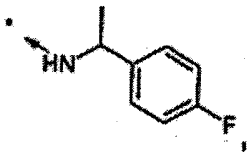
R5 představuje  ,

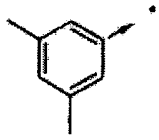
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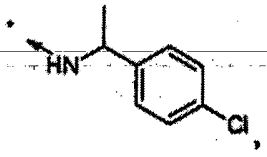
- R1 představuje  , R2 představuje  a

R5 představuje  ,

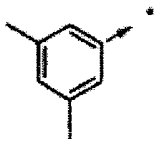
- R1 představuje  , R2 představuje  a

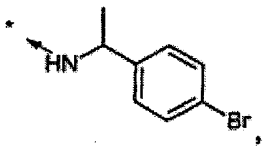
R5 představuje  ,

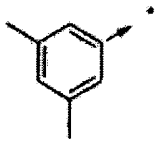
- R1 představuje  , R2 představuje  a

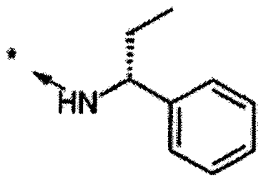
R5 představuje  ,

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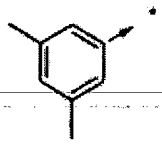
- R1 představuje  , R2 představuje  a

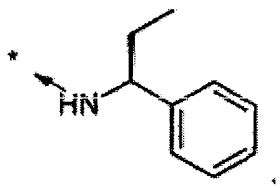
R5 představuje  ,

- R1 představuje  , R2 představuje  a

R5 představuje  ,

nebo nakonec

- R1 představuje  , R2 představuje  a

R5 představuje  ;

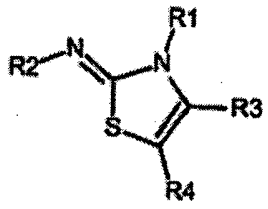
nebo soli jedné z těchto sloučenin.

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Kromě toho jsou velmi výhodné sloučeniny popsané v příkladech 1642 až 1654, 1656 až 1680, 2468 až 2502, 2525 až 2550, 2556 až 2582, 2605 až 2611, 2614, 2623 až 2630, 2632 až 2646, 2670 až 2678, 2680 až 2694, 2702 až 2710, 2712 až 2726 a 2827 až 2836 nebo soli jedné z těchto sloučenin. Ještě výhodnější jsou sloučeniny popsané v příkladech 2827 a 2836 nebo jejich sole.

Předložený vynález se kromě toho týká způsobů přípravy sloučenin obecného vzorce (1) popsaných výše (což se týká také sloučenin obecného vzorce (II)) na na pevném nosiči.

Podle předloženého vynálezu mohou být sloučeniny obecného vzorce (I)a



(I)a

ve kterém:

R1 představuje zbytek $-CH_2-A1-NH_2$, ve kterém A1 představuje zbytek $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla od 1 do 6;

R2 a R4 představují tytéž zbytky jako v obecném vzorci (I);

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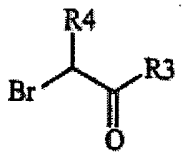
a R3 představuje tytéž zbytky jako v obecném vzorci (I), s výjimkou zbytků -CO-R5;

mohou být připraveny například způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice velkým přebytkem symetrického diaminu R1-NH_2;

2) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, pryskyřice izolované po ukončení kroku 1) aromatickým isothiokyanátem obecného vzorce R2-N=C=S ve kterém zbytek R2 má stejný význam jako v obecném vzorci (I)a;

3) zpracování v aprotickém rozpouštědle, jako je dioxan nebo dimethylformamid, pryskyřice získané v kroku 2) sloučeninou obecného vzorce (III)



(III)

ve kterém zbytky R3 a R4 mají stejný význam jako v obecném vzorci (I)a;

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4) odštěpení pryskyřice v kyselých podmínkách;

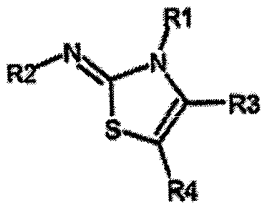
5) zpracování produktu získaného po ukončení kroku 4) v bázických podmínkách.

Příprava Wangovy p-nitrofenylkarbonátové pryskyřice je popsáno dále v kapitole nazvané "Příprava sloučenin podle předloženého vynálezu".

Výhodně se ve výše uvedeném způsobu použije získání velkého přebytku v kroku 1) řádově od 10 do 20 ekvivalentů diaminu $R1-NH_2$. Krok 1) se provádí výhodně za teploty okolí. Krok 3) se provádí za teploty vyšší než je teplota okolí, například za teploty v rozmezí od 60 do 90 °C, používajíce řádově od 2 do 5 ekvivalentů sloučeniny obecného vzorce (III). V kroku 4) mohou být kyselé podmínky vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 5) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

V jednom provedení předloženého vynálezu sloučeniny obecného vzorce (I)b

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(I)b

ve kterém:

R1 představuje tytéž zbytky jako v obecném vzorci (1), s výjimkou zbytků typu $-CH_2-A1-NH_2$ ve kterém A1 představuje zbytek $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla od 1 do 6, a také s výjimkou zbytků -C(R11)(R12)-CO-R10;

R2 představuje zbytek aminoalkylfenyl;

R3 představuje tytéž zbytky jako v obecném vzorci (I), s výjimkou zbytků -CO-R5;

a R4 představuje tytéž zbytky jako v obecném vzorci (I);

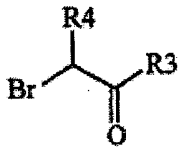
mohou být připraveny například způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice přebytkem aminoalkylanilinu obecného vzorce $R2-NH_2$ ve kterém zbytek R2 má stejný význam jako v obecném vzorci (I)b;

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2) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, pryskyřice izolované po ukončení kroku 1) isothiokyanátem obecného vzorce R1-N=C=S ve kterém zbytek R1 má stejný význam jako v obecném vzorci (I)b;

3) zpracování v aprotickém rozpouštědle, jako je dioxan nebo dimethylformamid, pryskyřice získané v kroku 2) sloučeninou obecného vzorce (III)



(III)

ve kterém zbytky R3 a R4 mají stejný význam jako v obecném vzorci (I)b;

4) odštěpení pryskyřice v kyselých podmínkách;

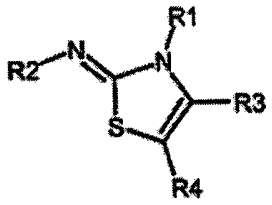
5) zpracování produktu získaného po ukončení kroku 4) v bázických podmínkách.

Výhodně se ve výše uvedeném způsobu pro dosažení přebytku v kroku 1) používá řádově od 5 do 10 ekvivalentů aminoalkylanilinu. Krok 1) se provádí výhodně za teploty okolí. Krok 3) se provádí za teploty vyšší než je teplota okolí, například za teploty v rozmezí od 60 do 90 °C,

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používajíce řádově od 2 do 5 ekvivalentů sloučeniny obecného vzorce (III). V kroku 4) mohou být kyselé podmínky vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 5) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

V jiném provedení předloženého vynálezu sloučeniny obecného vzorce (I)c



(I)c

ve kterém:

R1 představuje zbytek $-CH_2-A1-NH_2$, ve kterém A1 představuje zbytek $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla de 1 a6;

R2 představuje tytéž zbytky jako v obecném vzorci (I);

R3 představuje zbytek -CO-R5;

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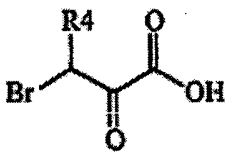
a R4 a R5 představují tytéž zbytky jako v obecném vzorci (I);

mohou být připraveny způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice velkým přebytkem symetrického diaminu obecného vzorce $R1-NH_2$ ve kterém zbytek R1 má stejný význam jako v obecném vzorci (I)c;

2) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, pryskyřice izolované po ukončení kroku 1) aromatickým isothiokyanátem obecného vzorce R2-N=C=S ve kterém zbytek R2 má stejný význam jako v obecném vzorci (I)c;

3) zpracování v aprotickém rozpouštědle, jako je dioxan nebo dimethylformamid, pryskyřice získané v kroku 2) kyselinou obecného vzorce (IV)



(IV)

ve kterém zbytek R4 má stejný význam jako v obecném vzorci (I)c;

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4) peptidová kopulace;

5) odštěpení pryskyřice v kyselých podmínkách;

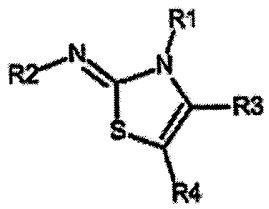
6) zpracování produktu získaného po ukončení kroku 5) v bázických podmínkách.

Výhodně se pro výše uvedený způsob používá v kroku 1) velký přebytek, řádově od 10 do 20 ekvivalentů, symetrického diaminu. Krok 1) se provádí výhodně za teploty okolí. Krok 3) se provádí za teploty vyšší než je teplota okolí, například za teploty v rozmezí od 60 do 90 °C, používajíce řádově od 2 do 5 ekvivalentů kyseliny obecného vzorce (IV). Peptidová kopulace v kroku 4) se provádí například v DMF s kopulačními činidly jako je například dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan benzotriazolyloxytris(dimethylamino)fosfonia (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (TBTU) a aminované sloučeniny. Výhodně se kopulační činidla používají v množstvích od 4 do 5 ekvivalentů, stejně tak jako aminované sloučeniny, a reakce se provádí za teploty řádově rovné teplotě okolí po dobu dobu řádově od 1 do 24 hodin. V kroku 5) mohou kyselé podmínky být vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se

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výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 6) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

V ještě dalším provedení sloučeniny obecného vzorce (I)d



(I)d

ve kterém:

R1 představuje tytéž zbytky jako v obecném vzorci (I), s výjimkou zbytků typu $-CH_2-A1-NH_2$, ve kterém A1 představuje zbytek $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla od 1 do 6, a, s výjimkou také zbytky -C(R11)(R12)-CO-R10;

R2 představuje zbytek aminoalkylfenyl;

R3 představuje zbytek -CO-R5;

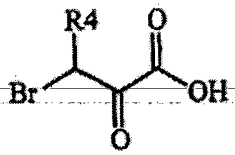
a R4 a R5 představují tytéž zbytky jako v obecném vzorci (I);

mohou být připraveny způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice přebytkem aminoalkylanilinu obecného vzorce $R2-NH_2$ ve kterém zbytek R2 má stejný význam jako v obecném vzorci (I)d;

2) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, pryskyřice izolované po ukončení kroku 1) isothiokyanátem obecného vzorce R1-N=C=S ve kterém zbytek R1 má stejný význam jako v obecném vzorci (I)d;

3) zpracování v aprotickém rozpouštědle, jako je dioxan nebo dimethylformamid, pryskyřice získané v kroku 2) kyselinou obecného vzorce (IV)



(IV)

ve kterém zbytek R4 má stejný význam jako v obecném vzorci (I)d;

4) peptidová kopulace;

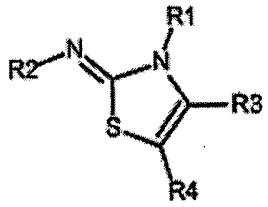
5) odštěpení pryskyřice v kyselých podmínkách;

6) zpracování produktu získaného po ukončení kroku 5) v bázických podmínkách.

Výhodně se pro výše uvedený způsob pro dosažení přebytku v kroku používá 1) řádově od 5 do 10 ekvivalentů aminoalkylanilinu. Krok 1) se provádí výhodně za teploty okolí. Krok 3) se provádí za teploty vyšší než je teplota okolí, například za teploty v rozmezí od 60 do 90 °C, používajíce řádově od 2 do 5 ekvivalentů kyseliny obecného vzorce (IV). Peptidová kopulace v kroku 4) se provádí například v DMF s kopulačními činidly jako je například dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan benzotriazolyloxytris (dimethylamino) fosfonia (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (TBTU) a aminované sloučeniny. Výhodně se kopulační činidla používají v množstvích od 4 do 5 ekvivalentů, stejně tak jako aminované sloučeniny, a reakce se provádí za teplota řádově rovné teplotě okolí po dobu dobu řádově od 1 do 24 hodin. V kroku 5) mohou kyselé podmínky být vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 6) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

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V dalším provedení sloučeniny obecného vzorce (I)e



(I)e

ve kterém:

R1 představuje tytéž zbytky jako v obecném vzorci (I), s výjimkou zbytků typu $-CH_2-A1-NH_2$, ve kterém A1 představuje zbytek $-(CH_2)_n-$, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla od 1 do 6, a, s výjimkou také zbytky -C(R11)(R12)-CO-R10;

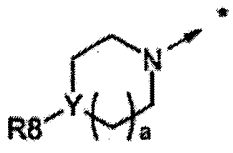
R2 představuje tytéž zbytky jako v obecném vzorci (I);

R3 představuje zbytek -CO-R5;

R4 představuje H;

R5 představuje zbytek $-NH-CH_2-A1-NH_2$, ve kterém A1 představuje přímý nebo rozvětvený alkylenový zbytek obsahující 1 až 6 atomů uhlíku, $-(CH_2)_n-O-(CH_2)p-$, aralkylen nebo cykloalkylalkylen, n a p představují celá čísla od 1 do 6, nebo také R5 představuje zbytek N(R6)(R7), který má následující obecný vzorec:

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ve kterém:

R8 představuje H;

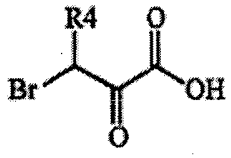
Y představuje N;

a představuje 1 nebo 2;

mohou být připraveny způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice velkým přebytkem symetrického diaminu obecného vzorce R5-H;

2) peptidová kopulace kyselinou obecného vzorce (IV) na pryskyřici získaná v kroku 1)



(IV)

ve kterém zbytek R4 má stejný význam jako v obecném vzorci (I)e;

3) reakce primárního aminu obecného vzorce R1-NH_2 s isothiokyanátem obecného vzorce R2-NCS v rozpouštědle jako je dimethylformamid nebo dioxan, R1 a R2 mají přitom stejné významy jako v obecném vzorci (I)e;

4) přidání thiomočoviny získané v kroku 3) k pryskyřici získané v kroku 2) a zahřívání směsi;

5) odštěpení pryskyřice v kyselých podmínkách;

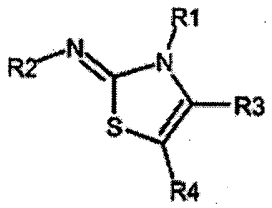
6) zpracování produktu získaného po ukončení kroku 5) v bázických podmínkách.

Výhodně se pro výše uvedený způsob v kroku 1) použije velkého přebytku řádově od 10 do 20 ekvivalentů diaminu R5-H. Krok 1) se provádí výhodně za teploty okolí. Peptidová kopulace v kroku 2) se provádí v DMF s kopulačním činidlem jako je například směs DIC/N-hydroxybenzotriazol (HOBt). Reakce v kroku 3) se provádí výhodně v rozpouštědle jako je dimethylformamid nebo dioxan. Pro provádění adice v kroku 4) se používá výhodně od 2 do 5 ekvivalentů thiomočoviny na

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jeden ekvivalent pryskyřice; ještě výhodněji s směs zahřívá na teplotu vyšší než je teplota okolí, například na teplotu od 40 do 100 °C (zejména na teplotu přibližně 80 °C) a po doba trvání od 2 do 24 hodin. V kroku 5) mohou kyselé podmínky být vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 6) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

V ještě dalším provedení sloučeniny obecného vzorce (I)f



(I)f

ve kterém:

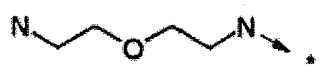
R1 představuje zbytek -C(R11)(R12)-CO-R10;

R2, R3 a R4 představují tytéž zbytky jako v obecném vzorci (I);

R10 představuje zbytek amino(C_2-C_7)alkylamino, ((aminoalkyl)aryl)alkylamino, ((aminoalkyl)cykloalkyl)-alkylamino, piperazinyl, homopiperazinyl,

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nebo R10 představuje následující zbytek:



;

R11 představuje H;

R12 představuje H nebo zbytek alkyl, (C_3-C_7)cykloalkyl, karbocyklický nebo heterocyklický aralkyl popřípadě substituovaný, propargyl, allyl, hydroxyalkyl, alkylthioalkyl, arylalkylalkoxyalkyl, arylalkylthioalkoxy-alkyl;

mohou být připraveny způsobem, který zahrnuje následující po sobě jdoucí kroky:

1) zpracování v aprotickém rozpouštědle, jako je dichlormethan nebo dimethylformamid, Wangovy p-nitrofenylkarbonátové pryskyřice velkým přebytkem symetrického diaminu obecného vzorce R10-H ve kterém R10 má stejný význam jako v obecném vzorci (I)f;

2) peptidová kopulace pryskyřice získané v kroku 1) s aminokyselinou obecného vzorce HOOC-C(R11)(R12)-NH-Fmoc ve kterém R11 a R12 mají stejný význam jako v obecném vzorci (I)f;

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3) odštěpení skupiny Fmoc pryskyřice získané v kroku 2);

4) reakce pryskyřice získané v kroku 3) s isothiokyanátem obecného vzorce R2-NCS ve kterém R2 má stejný význam jako v obecném vzorci (I)f;

5) odštěpení pryskyřice v kyselých podmínkách;

6) zpracování produktu získaného po ukončení kroku 5) v bázických podmínkách.

Výhodně se pro výše uvedený způsob použije pro získání velkého přebytku v kroku 1) řádově od 10 do 20 ekvivalentů diaminu R10-H. Krok 1) se provádí výhodně za teploty okolí. Peptidová kopulace v kroku 2) se provádí například v DMF s kopulačními činidly jako je například dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan benzotriazolyloxytris (dimethylamino) fosfonia (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (TBTU). Reakce v kroku 2) se provádí výhodně za teploty okolí a po dobu od 1 do 24 hodin. Deprotekce v kroku 3) může být prováděna například směsí DMF obsahujícího 20% piperidinu. Krok 4) se výhodně provádí v rozpouštědle jako je dimethylformamid nebo le dichlormethan, přičemž se výhodně přidá isothiokyanát v množství od 5 do 10 ekvivalentů na jeden ekvivalent pryskyřice získané v kroku 3). V kroku 5) mohou kyselé

podmínky být vytvořeny například používajíce směs dichlormethan/kyselina trifluoroctová 50 %, přičemž uvedené kyselé podmínky se výhodně udržují po dobu dobu řádově od 1 do 2 hodin. V kroku 6) mohou být bázické podmínky vytvořeny například používajíce roztok nasycený hydrogenuhličitanem sodným nebo vymýváním na koloně bázického oxidu hlinitého.

Předložený vynález se také týká jako léčiv sloučenin obecných vzorců (I) a (II) popsaných výše nebo jejich farmaceuticky přijatelných solí. Předložený vynález se také týká farmaceutických kompozic, obsahujících uvedené sloučeniny nebo jejich farmaceuticky přijatelné sole a jejich použití pro přípravu léčiv určených pro léčbu patologických stavů nebo onemocnění na kterých se podílí jeden nebo více receptorů somatostatinu.

Sloučeniny obecných vzorců (I) a (II) popsaných výše nebo jejich farmaceuticky přijatelné sole mohou být zejména používány pro přípravu léčiv určených pro léčbu patologických stavů nebo onemocnění zvolených ze souboru, zahrnujícího následující patologické stavy nebo onemocnění: akromegalie, adenomy hypofýzy, Cushingova nemoc, gonadotrofinomy a prolaktinomy, sekundární katabolické účinky glukokortikoidů, na insulinu závislý diabetes, diabetické retinopatie, diabetické nefropatie, syndrom X, Dawnův fenomen, angiopatie, angioplastika, hyperthyroidie, gigantismus, endokrinní gastroenteropankreatické nádory včetně karcinoidního syndromu, VIPom, insulinom, nesidioblastóza, hyperinsulinemie, glukagonom, gastrinom a Zollinger-Ellisonův syndrom, GRFom, stejně tak jako akutní

krvácení esofageálních varixů, vředy, gastroesofageální reflux, gastroduodenální reflux, pankreatitida, enterokutánní a pankreatické píštěle ale také průjmy, refrakční průjmy při syndromu získané imunitní nedostatečnosti, chronický sekreční průjem, průjem související se syndromem střevního podráždění, průjmy indukované chemoterapií, poruchy související s peptidem uvolňujícím gastrin, sekundární patologie intestinálních štěpů, portální hypertenze, stejně tak jako krvácení varixů pacientů trpících cirhózou, gastro-intestinální krvácení, krvácení gastroduodenálních vředů, krvácení cévních štěpů, Crohnova nemoc, systémové sklerózy, dumping syndrom, syndrom tenkého střeva, hypotenze, sklerodermie a medulární karcinom štítné žlázy, onemocnění související s buněčnou hyperproliferací jako jsou rakoviny a obzvláště rakovina prsu, rakovina prostaty, rakovina štítné žlázy, rakovina slinivky břišní a kolorektální rakovina, fibrózy a obzvláště fibróza ledvin, fibróza jater, fibróza plic, fibróza kůže, také fibróza centrálního nervového systému, stejně tak jako fibróza nosu a fibróza indukovaná chemoterapií, a v dalších terapeutických oblastech, cefalea (bolest hlavy) včetně cefaley související s nádory hypofýzy, bolest, zánětlivé poruchy jako je artritida, panické ataky, chemoterapie, jizvení poranění, renální nedostatečnost způsobená opožděním růstu, hyperlipidemie, obezita a opoždění růstu související s obezitou, opoždění růstu v děloze, dysplasie kostry, Noonanův syndrom, syndrom zástavy dechu ve spánku, Gravesova nemoc, polycystické onemocnění vaječníků, les pankreatické polycysty a vodnatelnosti, leukémie, meningiom, kachexie při rakovině,

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inhibice H. pylori, psoriáza, chronické odmítání alloštěpů, stejně tak jako Alzheimerova nemoc a nakonec osteoporóza.

Sloučeniny obecných vzorců (I) a (II) popsaných výše nebo jejich farmaceuticky přijatelné sole mohou být výhodně používány pro přípravu léčiv určených pro léčbu patologických stavy nebo onemocnění zvolených ze souboru, zahrnujícího následující patologické stavy nebo onemocnění: akromegalie, adenomy hypofýzy nebo endokrinní gastroenteropankreatické nádory včetně karcinoidního syndromu a gastro-intestinální krvácení.

Výrazem farmaceuticky přijatelná sůl se rozumí zejména adiční sole anorganických kyselin jako je jsou hydrochlorid, síran, fosforečnan, difosforečnan, hydrobromid a dusičnan nebo organických kyselin jako je octan, maleinan, fumaran, vínan, jantaran, citronan, mléčnan, methansulfonát, p-toluensulfonát, pamoát, šťavelan a stearan. Předložený vynález se také týká solí vytvořených na základě bází jako je hydroxyd sodný nebo draselný, pokud jsou použitelné. Pro další příklady farmaceuticky přijatelných solí je možno uvést referenci "Pharmaceutical salts", J. Pharm. Sci. 66: 1 (1977).

Farmaceutická kompozice může být ve formě pevné látky, například prášky, granule, tablety, želé, liposomy nebo čípky. Vhodný pevný nosič může být například fosforečnan vápenatý, stearan hořečnatý, mastek, cukry, laktóza, dextrin, škrob, želatina, celulóza, methylcelulóza, sodná sůl karboxymethylcelulózy, polyvinylpyrrolidin a vosk.

Suspenze zahrnují zejména suspenze mikročástic a s prodlouženým uvolňováním a s obsahem účinné látky (zejména mikročástice z polylaktid-ko-glykolidu nebo PLGA - viz například vynálezy US 3,773,919, EP 52 510 nebo EP 58 481 nebo přihláška vynálezu PCT WO 98/47489), které umožňují podávání denní dávky podávané po dobu několika dní až několika týdnů.

Farmaceutické kompozice obsahující sloučeninu podle předloženého vynálezu mohou také být v kapalné formě, například roztoky, emulze, suspenze nebo sirupy. Vhodné kapalné nosiče mohou být například voda, organická rozpouštědla jako je glycerol nebo glykoly, stejně tak jako jejich směsi v různých množstvích s vodou.

Podávání léčiva podle předloženého vynálezu se může provádět cestou topickou, orální, parenterální, intramuskulární injekcí a podobně.

Dávky pro podávání předpokládané pro léčivo podle předloženého vynálezu jsou v rozmezí od 0,1 mg do 10 g v závislosti na typu používané sloučeniny.

Tyto sloučeniny mohou být připraveny způsoby popsanými dále.

Příklady provedení vynálezu

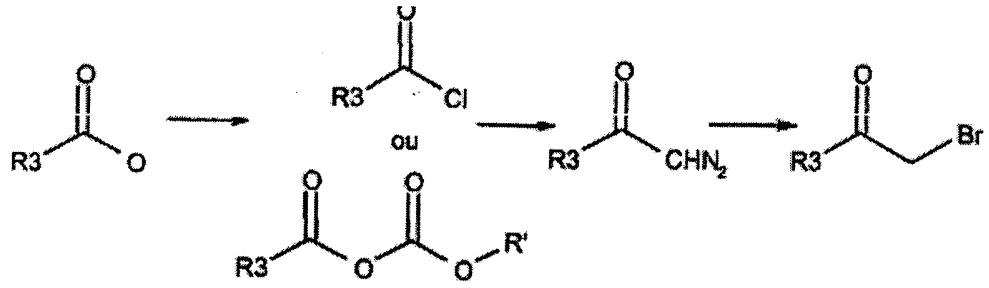
Příprava sloučenin podle předloženého vynálezu

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I) Příprava α-bromketonů

Způsob první

Tento způsob vychází z protokolů popsaných v následujících publikacích: Macholan, L.; Skursky, L., Chem. Listy 1955, 49, 1385-1388; Bestman, H. J.; Seng, F. Chem. Ber. 1963, 96, 465-469; Jones, R. G.; Komfeld, E. C.; McLaughlin, K. C., J. Am. Chem. Soc. 1950, 72, 4526-4529; Nimgirawath, S.; Ritchie, E.; Taylor, W. C.; Aust. J. Chem. 1973, 26, 183-193).



Karboxylová kyselina se především přemění na chlorid kyseliny, používajíce oxalylchlorid nebo thionylchlorid nebo se aktivuje ve formě anhydridu pomocí chlorformiátu alkylu (například isobutyl chlorformiátu, viz Krantz, A.; Copp, L. J. Biochemistry 1991, 30, 4678-4687; nebo ethylchlorformiátu, viz Podlech, J.; Seebach, D. Liebigs Ann. 1995,1217-1228) v přítomnosti báze (triethylamin nebo N-methylmorfolin).

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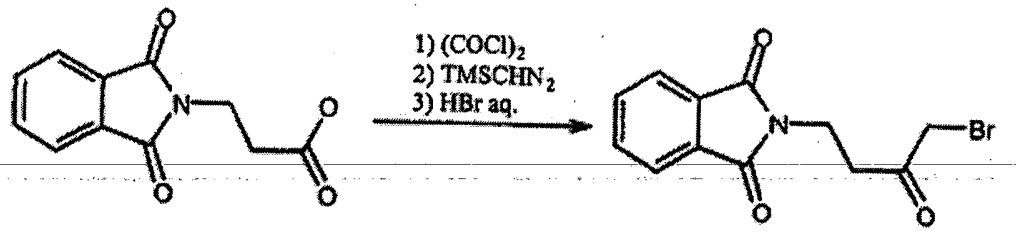
Karboxylová aktivovaná skupina se potom transformuje na diazoketon pomocí diazomethanu v etherovém roztoku nebo komerčním roztoku trimethylsilyldiazomethanu (Aoyama, T.; Shiori, T. Chem. Pharm. Bull. 1981,29, 3249-3255) v aprotickém rozpouštědle jako je diethylether, tetrahydrofuran (THF) nebo acetonitril.

Potom se provede bromace, používajíce bromační činidlo jako je kyselina bromovodíková v kyselině octové, vodná kyselina bromovodíková v diethyletheru nebo dichlormethanu.

Příprava 1

2-(4-brom-3-oxobutyl)-1H-isoindol-1,3(2H)-dion

($Cl_2H_{10}BrNO_3$, molekulová hmotnost = 296,12):



Oxalylchlorid (5,8 ml; 66,7 mmol) se přidá do Pht-β-Ala-OH (9,96 g; 44, 5 mmol) rozpuštěného v dichlormethanu (120 ml) a 3 kapkách dimethylformamidu (DMF). Směs se míchá po dobu 3 hodin za teploty okolí. Po odstranění rozpouštědla se bílá pevná látka vyjme ve směsi 1:1 bezvodého tetrahydrofuran a acetonitrilu (200 ml) a pake se přidá 49

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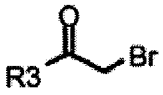
ml roztoku (trimethylsilyl)diazomethanu 2M v hexanu (97,9 mmol) po kapkách za teploty 0 °C. Rozpouštědla se odstraní po jedné noci za míchání za teploty 0 °C. Bledě žlutá pevná látka se potom rozpustí v dichlormethanu (60 ml) a přidá se 12 ml vodné kyseliny bromovodíkové (48%) po kapkách za teploty 0 °C. Směs se míchá až do vzestupu teploty na 15 °C a přidá se 50 ml roztoku nasyceného hydrogenuhličitanem sodným. Organická fáze se promývá solným roztokem a potom se suší nad síranem sodným. Krystalizace v diethyletheru umožňuje získání bílé pevné látky (11,39 g; výtěžek = 86%).

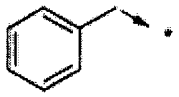
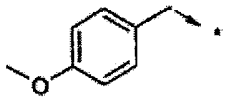
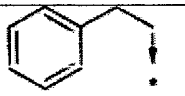
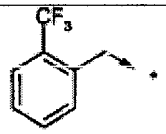
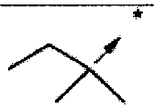
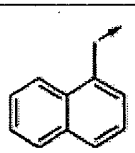
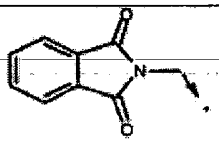
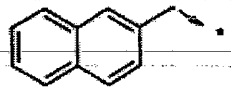
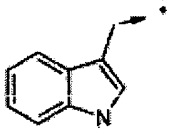
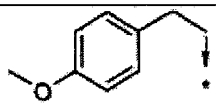
^{1}H NMR (DMSO D6, 100 MHz, 8): 7, 83 (s, 4H); 4, 36 (s, 2H, CH_2Br); 3, 8 (t, 2H, J = 7, 1 Hz, NCH_2); 2, 98 (t, 2H, J = 6, 9 Hz, CH_2CO).

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Přípravy 2-11

Následující sloučeniny byly připraveny způsobem podobným způsobu popsanému v Přípravě 1:



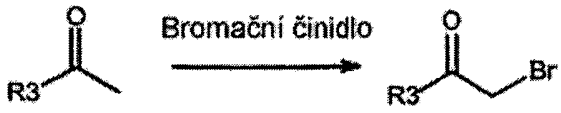
Příp.	R3	Výtěžek (%)	Příp.	R3	Výtěžek (%)
2*		78	7		67
3*		60	8		51
4*		10	9		38
5*		69	10		22
6*		41	11		67

* Sloučeniny již popsané v literatuře.

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Způsob druhý

Výchozí produkt je arylmethylketon nebo heteroarylmethylketon.



Výchozí arylmethylketon nebo heteroarylmethylketon se přemění na odpovídající α-bromketon používajíce různých bromačních činidel:

- $CuBr_2$ (King, L. C.; Ostrum, G. K. J. Org. Chem. 1964, 29, 3459-3461) zahřívaný v ethylacetátu nebo dioxanu;

- N-bromsukcinimid v CCl_4 nebo ve vodném acetonitrilu (Morton, H. E.; Leanna, M. R. Tetrahedron Lett. 1993, 34, 4481-4484);

- brom v ledové kyselině octové nebo kyselině sírové;

- fenyltrimethylamoniumbromid (Sanchez, J. P.; Parcell, R. P. J. Heterocyclic Chem., 1988, 25, 469-474) za teploty 20-80 °C v aprotickém rozpouštědle jako je THF nebo tetrabutylamoniumbromid (Kajigaeshi, S.; Kakinami, T.; Okamoto, T.; Fujisaki, S. Bull. Chem. Soc. Jpn. 1987, 60, 1159-1160) ve směsi dichlormethan/methanol za teploty okolí;

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- bromační činidlo na polymerním nosiči jako je perbromid na pryskyřici Amberlyst A-26, poly(perbromid hydrobromidu vinylpyridinia) (Frechet, J. M. J.; Farrall, M. J. J. Macromol. Sci. Chem. 1977, 507-514) v protonovém rozpouštědle jako je methanol o teplotě přibližně 20-35 °C po dobu přibližně 2-10 h.

Příprava 12

1-(1-benzofuran-2-yl)-2-brom-1-ethanon

($C_{10}H_7BrO_2$, molekulová hmotnost = 239,06):



Do roztoku (benzofuran-2-yl)methylketonu (2 g; 12,5 mmol) v methanolu (40 ml) se přidá polymer perbromidu hydrobromidu pyridinu (8,75 g; 17,5 mmol; 1,4 ekvivalent). Výsledná směs se míchá za teploty okolí po dobu 7 hodin a reakce se zastaví filtrací. Methanol se odstraní za sníženého tlaku a dodatečné přidání diethyletheru umožní krystalizaci očekávaného produktu (3,6 g; výtěžek = 60%).

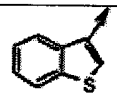
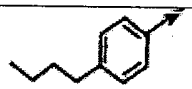
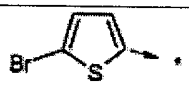
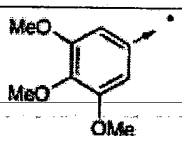
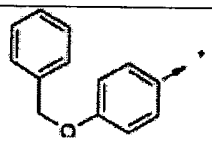
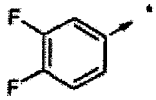
^1H NMR (DMSO D6, 100 MHz, δ): 8,09 (s, 1H); 7,98 (d, 1H, J = 6,6 Hz); 7,75 (d, 1H, J = 8,4 Hz); 7,58 (t, 1H, J = 8,4 Hz); 7,4 (t, 1H, J = Hz); 4,83 (s, 2H, CH_2Br).

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Přípravy 8-12

Následující sloučeniny byly připraveny způsobem podobným způsobu popsanému v Přípravě 12:



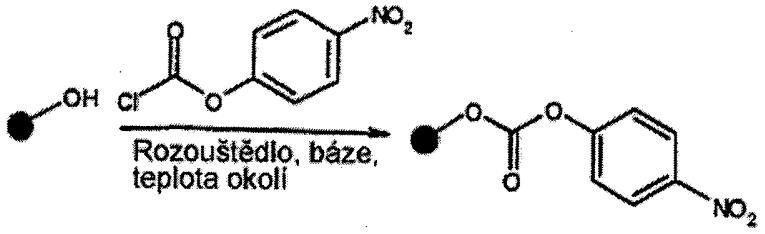
Příprava	R3	Doba trvání reakce (h)	Výtěžek (%)
13*		8	78
14*		2	62
15*		10	56
16*		2	53
17*		3	95
18		8	27

* Sloučenina již popsaná v literatuře.

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II) Syntéza 2-arylimino-2,3-dihydrothiazolů syntézou v pevné fázi

Příprava Wangovy p-nitrofenylkarbonátové pryskyřice

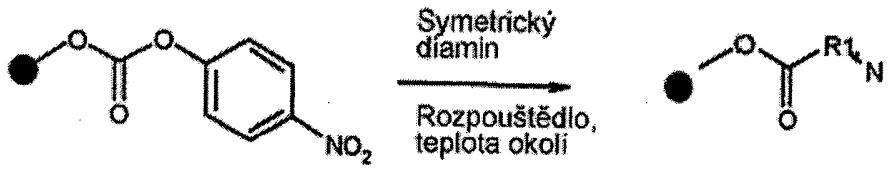


Tato pryskyřice byla připravena vycházejíce z Wangovy pryskyřice, získané od společnosti Bachem nebo Novabiochem s dávkou vyšší než 0,89 mmol/g, obecným způsobem, který je dobře popsán v literatuře (viz Bunin, B. A. The Combinatorial Index, Academic Press, 1998, p. 62-63; Dressman, B. A.; Spangle, L. A.; Kaldor, S. W. Tetrahedron Lett. 1996, 37, 937-940; Hauske, J. R.; Dorff, P. Tetrahedron Lett. 1995, 36, 1589-1592; Cao, J.; Cuny, G. D.; Hauske, J. R. Molecular Diversity 1998, 3, 173-179): N-methylmorfolin nebo pyridin jako báze a 4-nitrofenylchlorformiát se postupně přidají do Wangovy pryskyřice předem nabobtnalé v dichlormethanu (DCM) nebo tetrahydrofuranu (THF) za teploty okolí. Směs se míchá přes noc. Pryskyřice se potom promývá postupně pomocí THF, diethyletheru a DCM a potom se suší za sníženého tlaku a za teploty 50 °C přes noc.

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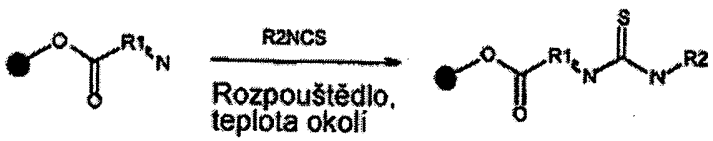
Způsob A

Příprava symetrických diaminů s jednou chráněnou skupinou



Obecný způsob: jako je již popsán v literatuře (Dixit, D. M.; Leznoff, C. C. J C. S. Chem. Comm. 1977,798-799; Dixit, D. M.; Leznoff, C. C. Israel J. Chem. 1978, 17, 248-252; Kaljuste K.; Unden, A. Tetrahedron Lett. 1995,36, 9211-9214; Munson, M. C.; Cook, A. W.; Josey, J. A.; Rao, C. Tetrahedron Lett. 1998,39, 72237226), Wangova p-nitrofenylkarbonátová pryskyřice se zpracovává velkým přebytkem symetrického diaminu (10-20 ekvivalentů) v aprotickém rozpouštědle jako je DCM nebo DMF pro získání diaminové pryskyřice s jednou chráněnou skupinou po míchání přes noc.

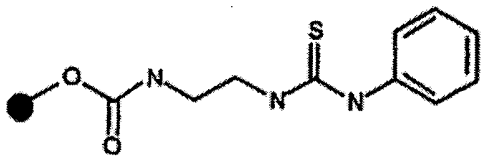
Příprava thiomočovinových pryskyřic



Obecný způsob: aromatické a heteroaromatické isothiokyanáty (5-10 ekvivalentů) se přidají (Smith, J.; Liras, J. L.; Schneider, S. E.; Anslyn, E. V. J. Org. Chem. 1996, 61, 8811-8818) k symetrickým diaminům s jednou chráněnou skupinou v rozpouštědle jako je DCM nebo DMF a směs se míchá přes noc za teploty okolí. Promývá se postupně DMF a DCM a thiomočovinová pryskyřice se izoluje a potom se suší za sníženého tlaku za teploty 50 °C přes noc.

Příprava 19

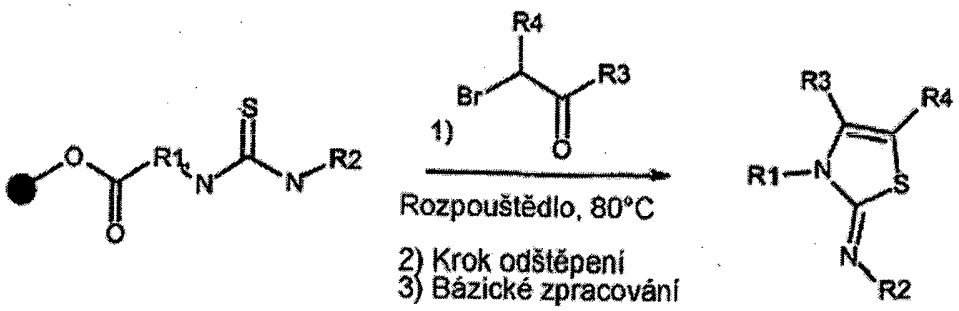
Wangova pryskyřice karbamátu (fenylaminothioyl)ethylu



Wangova pryskyřice N-karbamát ethylendiaminu (2 g; 1,72 mmol; 0, 86 mmol/g) nabobtnalá v DCM (50 ml) se přidá k fenylisothiokyanátu (1 ml; 8,5 mmol; 5 ekv.). Po míchání jednu noc za teploty okolí se pryskyřice promývá postupně pomocí DMF (5 x 20 ml) a DCM (5 x 20 ml). Úspěšnost kopulace se sleduje Kaiserovým ninhydrinovým testem (Kaiser, E.; Colescott, R. L.; Bossinger, C. D.; Cook, P. I. Anal. Biochem. 1970, 34, 595-598). Bledě žlutá pryskyřice (1, 79 g) se získá v jedné vypočtené dávce 0,648 mmol/g, vycházejíce z elementární analýzy síry.

Syntéza 2-arylimino-2,3-dihydrothiazolů

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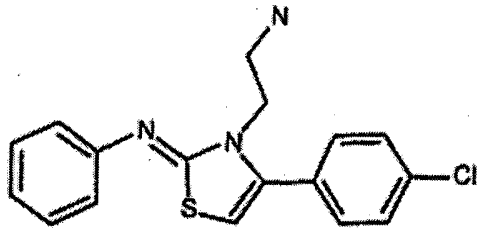
Obecný způsob: krok regioselektivní cyklizace (Korohoda, M. J.; Bojarska, A. B. Polish J. Chem. 1984, 58, 447-453; Ragab, F. A.; Hussein, M. M.; Hanna, M. M.; Hassan, G. S.; Kenawy, S. A. Egypt. J. Pharm. Sci. 1993, 34, 387-400; Hassan, H. Y.; El-Koussi, N. A.; Farghaly, Z. S. Chem. Pharm. Bull. 1998, 46, 863-866) nastává v aprotických rozpouštědlech jako je dioxan nebo DMF za teploty 80 °C po dobu 2-3 hodin mezi thiomočovinovou pryskyřicí a α-bromketonem (2-5 ekvivalentů). Pryskyřice se potom promývá postupně pomocí DMF, methanolu a DCM a potom se suší za sníženého tlaku. 2-arylimino-2,3-dihydrothiazolová pryskyřice se štěpí v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1-2 hodin a potom promývá pomocí DCM. Rozpouštědlo se odpaří a volná báze se izoluje po zpracování v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným), extrakci pomocí DCM nebo vymývání pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

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Příklad 1

N-[3-(2-aminoethyl)-4-(4-chlorfenyl)-1,3-thiazol-2(3H)-yliden]anilin

($C_{17}H_{16}ClN_3S$, molekulová hmotnost = 329, 86):



K thiomočovinové pryskyřici, připravené výše uvedeným způsobem (100 mg; 64,8 µmol; množství 0,648 mmol/g), se přidá 2-brom-4'-chloracetofenon (30,2 mg; 129 µmol; 2 ekv.) rozpuštěný v DMF (1 ml). Směs se míchá 2 hodiny za teploty 80 °C. Pryskyřice se potom postupně promývá pomocí DMF (3 x 2 ml), methanolu (3 x 2 ml) a DCM (3 x 2 ml). Krok izolace, prováděný v 1 ml směs DCM/kyselina trifluoroctová 50%, dává po jedné a půl hodině míchání olej, který se vymývá methanolem v koloně oxidu hlinitého (500 mg, Interchim). Volná báze se izoluje kvantitativním způsobem (21,3 mg) ve formě žlutého oleje, který má čistotu 98% měřenou UV spektrofotometrií na vlnové délce 220 nm.

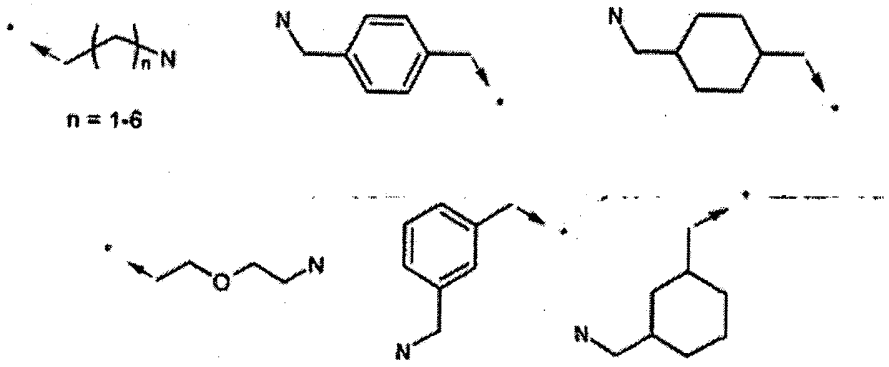
^1H NMR (DMSO D6, 100 MHz) δ: 7,55 (s, 5H); 7,3 (d, 2H, J = 7,1 Hz); 6,99 (d, 2H, J = 7,1 Hz); 6,21 (s, 1H, H azol);

3,74 (t, 2H, J = 6,2 Hz, NCH_2); 3,32 (široký s, 2H, NH_2); 2,72 (t, 2H, J = 6,2 Hz, NCH_2).

SM/CL: m/z = 330 (M+H)+.

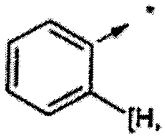
Série 2-arylimino-2,3-dihydrothiazolů byla syntetizována způsobem A, využívajíce robotizovaný systém (ACT MOS 496):

Skupiny R1:

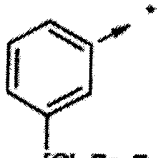


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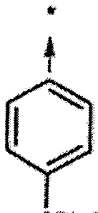
Skupiny R2:



[H, Cl, Br, F, I, OMe, SMe, OEt, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, Ph]



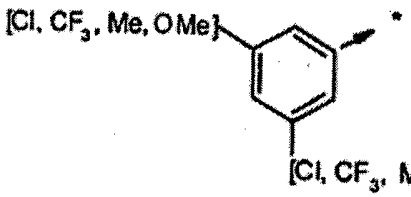
[Cl, Br, F, I, OMe, SMe, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, OCH_2Ph]



[Cl, Br, F, I, OMe, OEt, CF_3, OCF_3, NO_2, CN, Me, Et, iPr, nBu, tBu, NMe_2, NEt_2]

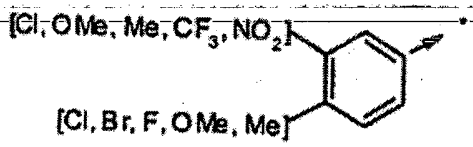






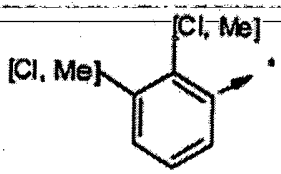
[Cl, CF_3, Me, OMe]

[Cl, CF_3, Me, OMe]



[Cl, OMe, Me, CF_3, NO_2]

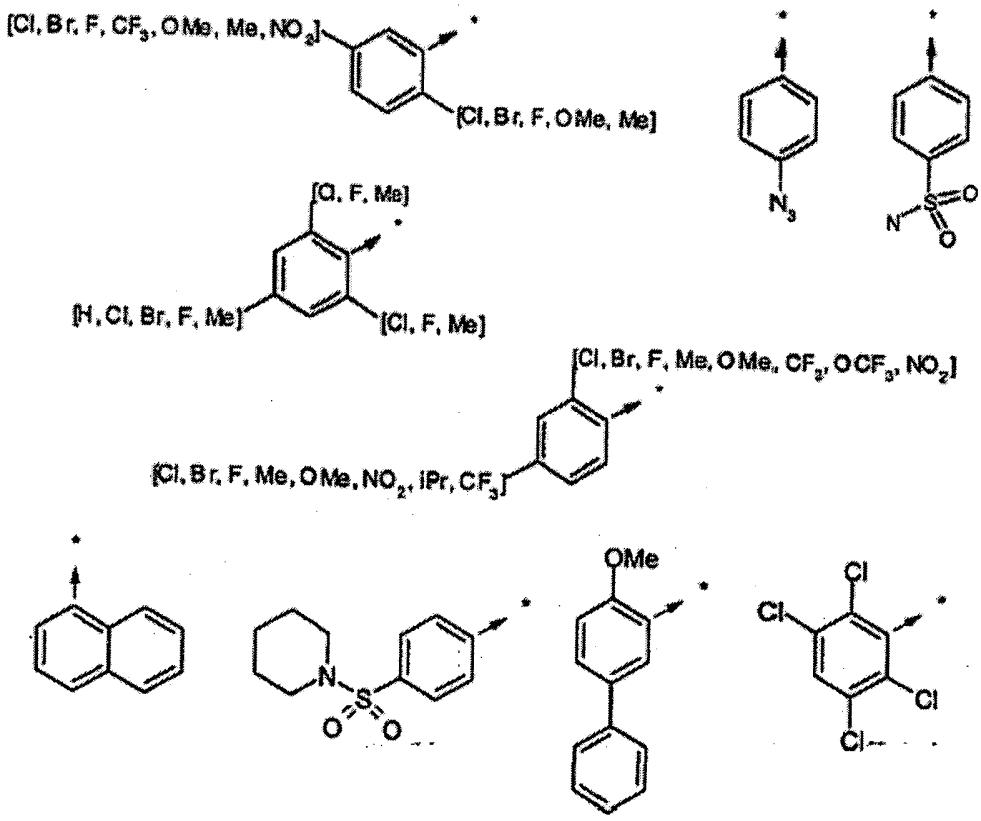
[Cl, Br, F, OMe, Me]



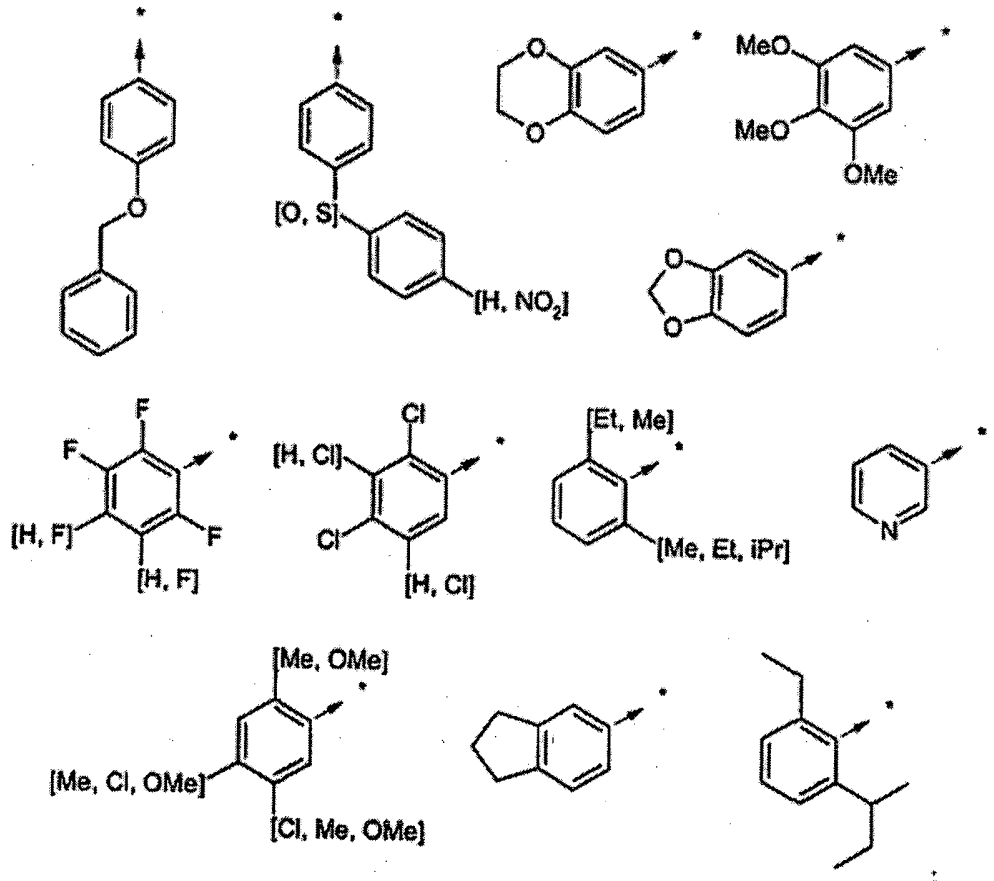
[Cl, Me]

[Cl, Me]

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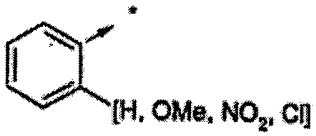

[Cl, Br, F, CF3, OMe, Me, NO2]
[Cl, Br, F, OMe, Me]
N3
N
S
O
O
[Cl, F, Me]
[H, Cl, Br, F, Me]
[Cl, F, Me]
[Cl, Br, F, Me, OMe, CF2, OCF3, NO2]
[Cl, Br, F, Me, OMe, NO2, iPr, CF3]
N
S
O
O
OMe
Cl
Cl
Cl
Cl

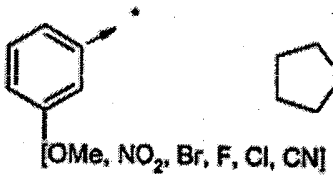
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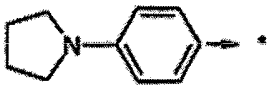

O
[O, S]
[H, NO2]
MeO
MeO
OMe
F
F
[H, F]
F
[H, F]
Cl
[H, Cl]
Cl
[H, Cl]
[Et, Me]
[Me, Et, iPr]
N
[Me, OMe]
[Me, Cl, OMe]
[Cl, Me, OMe]

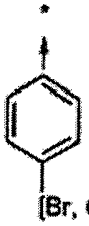
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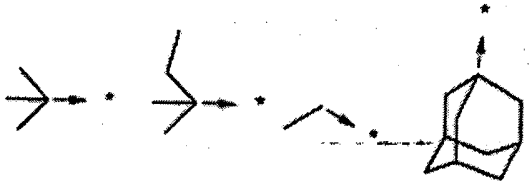
Skupiny R3:

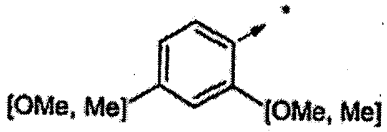


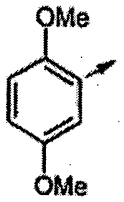


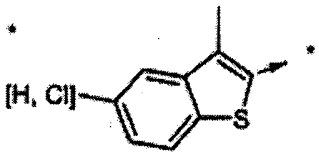


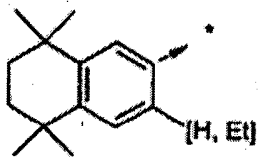


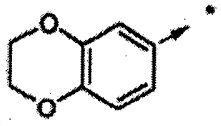


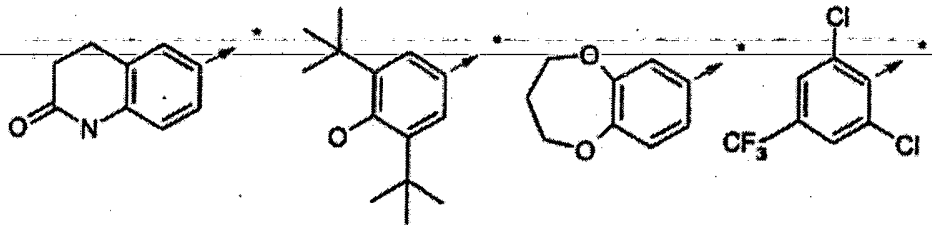


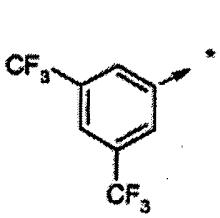


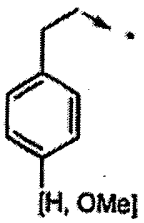


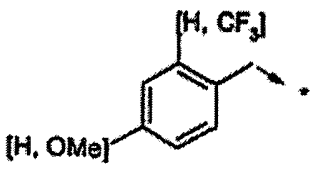




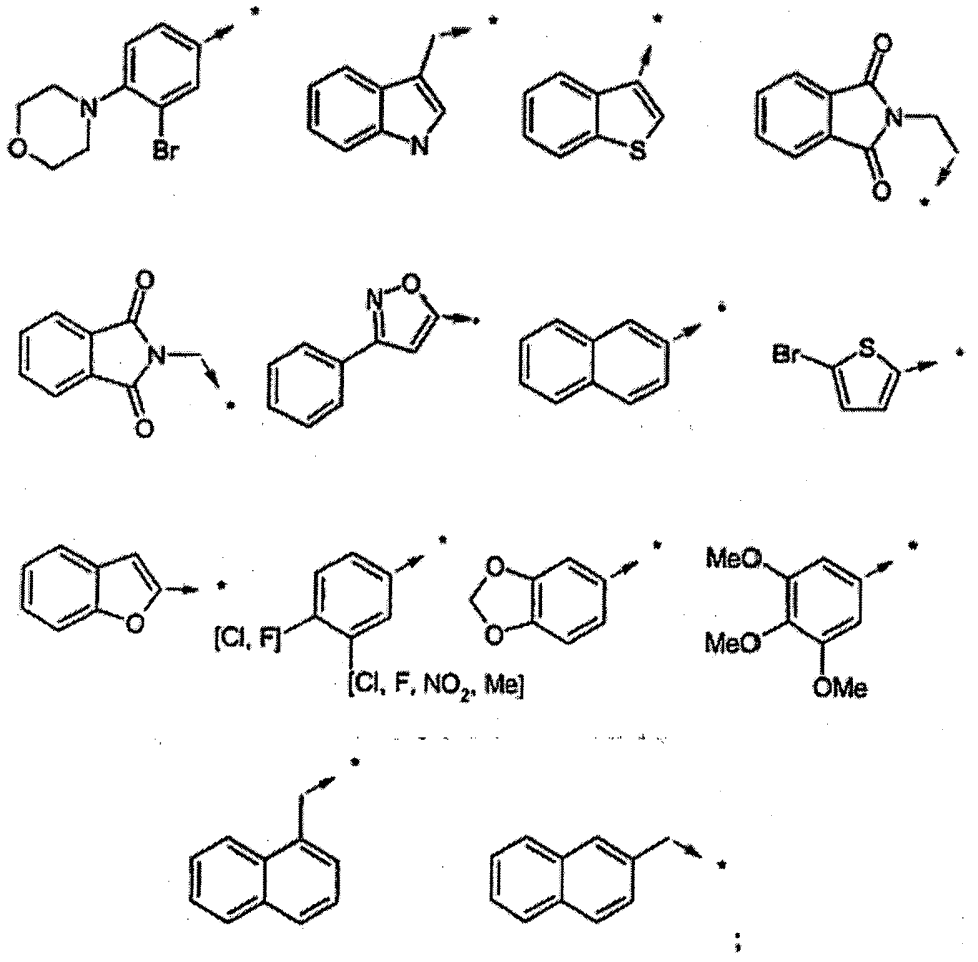








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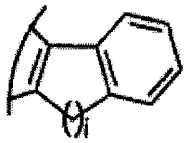
;

R4 představuje H, alkyl, karbocyklický nebo heterocyklický aralkyl popřípadě se nacházející na arylovém zbytku;



nebo také zbytek představuje zbytek obecného vzorce

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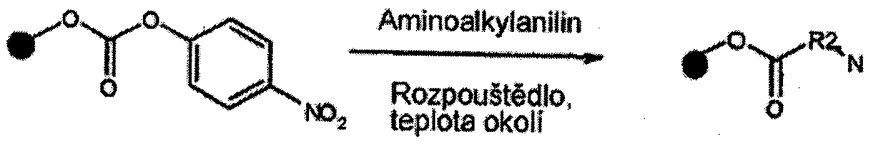


ve kterém i představuje celé číslo od 1 do 3;

přičemž platí pro R4, že pokud arylová skupina je substituována, může být substituována jednou až pětkrát (kromě vazby, která ji váže ke zbytku molekuly) zbytky, nezávisle na sobě zvolenými ze souboru, zahrnujícího atom halogenu a zbytky alkyl nebo alkoxy.

Způsob B

Příprava Wangových pryskyřic karbamátů vycházejíce z aminoalkylanilinů

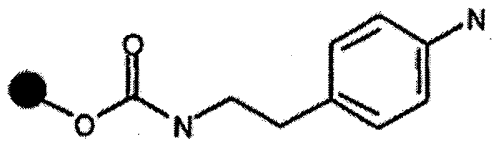


Obecný způsob: jako je již popsáno v literatuře (Hulme, C.; Peng, J.; Morton, G.; Salvino, J. M.; Herpin, T.; Labaudiniere, R. Tetrahedron Lett. 1998, 39, 7227-7230), Wangova pryskyřice p-nitrofenylkarbonátu se zpracovává přebytkem aminoalkylanilinu (5-10 ekv.) v DCM nebo DMF a míchá za teploty okolí po jednu noc.

Pryskyřice se promývá postupně pomocí DMF, methanolu a DCM a potom se suší jednu noc za sníženého tlaku za teploty 50 °C.

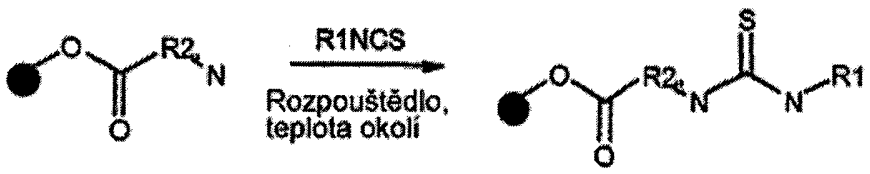
Příprava 20

Wangova pryskyřice karbamátu 4-aminofenylthylu



K Wangově pryskyřici p-nitrofenylkarbonátu (4,05 g; 3,47 mmol; množství 0,857 mmol/g) předem nabobtnalé v 50 ml bezvodého DMF se přidá roztok 2-(4-aminofenyl)ethylaminu (2,48 g; 17,3 mmol; 5 ekv.) v 30 ml bezvodého DMF. Směs se míchá za teploty okolí po jednu noc a filtruje. Pryskyřice se promývá postupně pomocí DMF (10 x 30 ml), methanolem (5 x 30 ml) a DCM (5 x 30 ml). 3,7 g žluté pryskyřice (množství 0,8 mmol/g, vypočteno vycházejíce z elementární analýzy dusíku), je pozitivní v ninhydrinovém Kaiserově testu a isoluje se po sušení po jednu noc za sníženého tlaku a za teploty 50 °C.

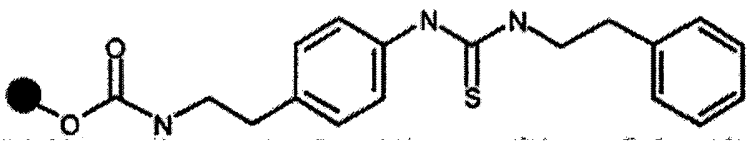
Příprava thiomočovinové pryskyřice s alifatickými isothiokyanáty



Obecný způsob: alifatické isothiokyanáty (5-10 ekvivalentů) se přidají do aminoalkylanilinové pryskyřice v rozpouštědle jako je DCM nebo DMF a směs se míchá za teploty okolí po jednu noc. Po promývání postupně pomocí DMF a DCM se thiomočovinová pryskyřice izoluje a suší se za sníženého tlaku a za teploty 50 °C přes noc.

Příprava 21

Wangova pryskyřice karbamátu 4-{[(fenylthylamino)-karbothioyl]-amino}-fenylthylu

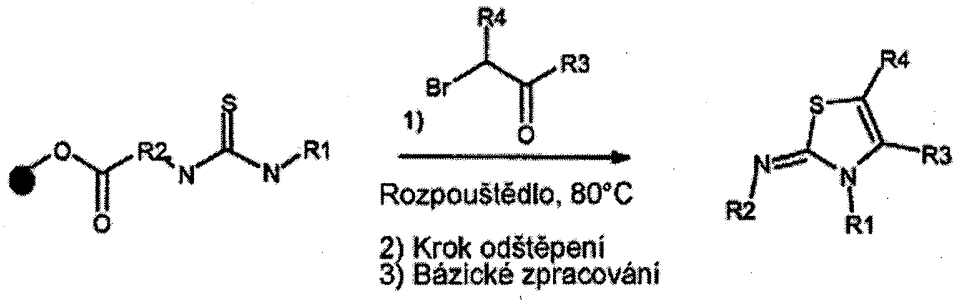


10 ml bezvodého DMF a fenylthylisothiokyanát (624 µl, 4 mmol, 10 ekv.) se přidají pod argonovou atmosférou do pryskyřice popsané výše (0, 5 g; 0,4 mmol; množství 0,8 mmol/g). Po míchání po jednu noc za teploty okolí je Kaiserův ninhydrinový test negativní. Pryskyřice se potom postupně promývá pomocí DMF (5 x 20 ml) a DCM (5 x 20 ml). Sušení za sníženého tlaku a za teploty 50 °C dává 488 mg

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pryskyřice v množství 0,629 mmol/g, vypočteno vycházejíce z elementární analýzy síry.

Syntéza 2-arylimino-2,3-dihydrothiazolů

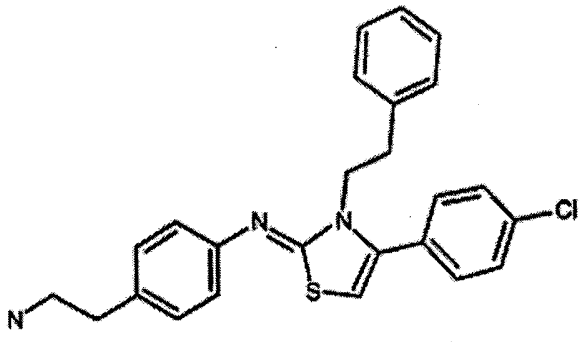


Obecný způsob: krok cyklizace probíhá v aprotickém rozpouštědle jako je dioxan nebo DMF za teploty 80 °C po dobu 2 hodin mezi thiomočovinovou pryskyřicí a α-bromketonem (2-5 ekvivalentů). Pryskyřice se potom postupně promývá pomocí DMF, methanolem a DCM a potom se suší za sníženého tlaku. Pryskyřice iminothiazolu se štěpí zpracováním v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1-2 hodin a potom se promývá pomocí DCM. Rozpouštědlo se odpaří a volná báze se izoluje po extrakci v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným), extrakci pomocí DCM nebo vymývání pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

Příklad 2

4-(2-aminoethyl)-N-[4-(4-chlorfenyl)-3-fenethyl-1,3-thiazol-2(3H)-yliden]anilin

($C_{25}H_24ClN_3S$, molekulová hmotnost = 434,01):



100 mg (62,9 mol, množství 0,629 mmol/g) thiomočovinové pryskyřice a 2-brom-4'-chloracetofenonu (30 mg; 125,8 μmol; 2 ekv.) se rozpustí v 1 ml DMF a zahřívá na teplotu 80 °C po dobu 2 hodin. Pryskyřice se potom promývá postupně pomocí DMF (5 x 1 ml), methanolem (5 x 1 ml) a DCM (5 x 1 ml). Pryskyřice se míchá v 1 ml směsi DCM/kyselina trifluoroctová 50% po dobu jedné a půl hodiny za teploty okolí. Pryskyřice se proplachuje pomocí DCM (5 x 1 ml) a filtrát se odpaří za sníženého tlaku. Residuum rozpuštěné v methanolu se vymývá v koloně oxidu hlinitého (500 mg, Interchim) pro kvantitativní získání (27,3 mg) očekávaného produktu ve formě pevné látky (čistota UV 97% stanovena na vlnové délce 220 nm).

^1H NMR (DMSO D6, 100 MHz) δ: 7,9 (široký s, 2H, NH_2); 7,53 (d, 2H, J = 8,5 Hz); 7,32-7,15 (m, 7H); 7,08-6,90 (m, 4H);

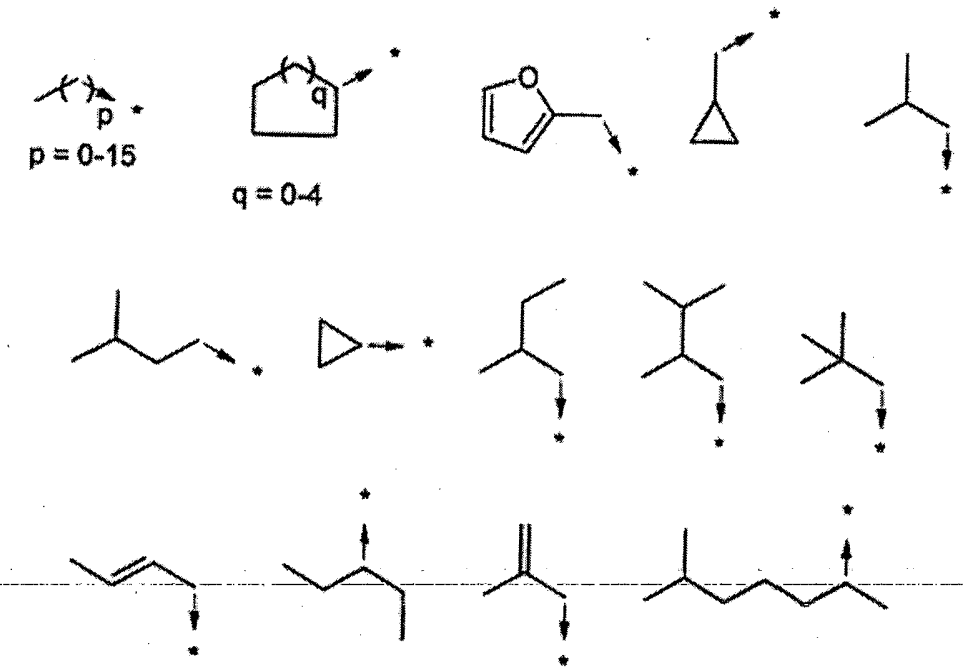
23.01.04

6,37 (s, 1H, H azol); 4,07 (m, 2H, NCH_2); 3,03 (m, 2H, NCH_2); 2,88 (m, 4H).

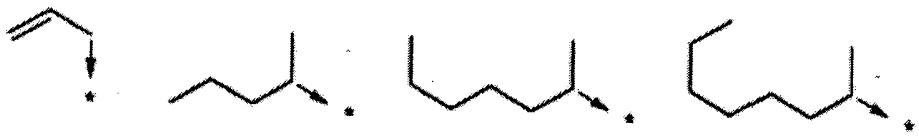
SM/LC: m/z = 435 (M+H)+.

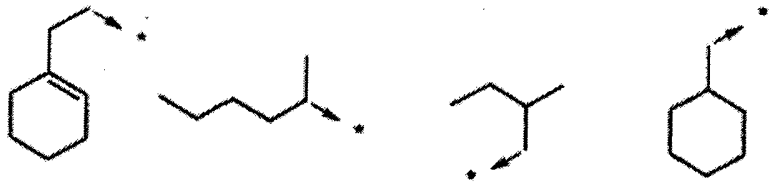
Série 2-arylimino-2,3-dihydrothiazolů byla syntetizována způsobem B , využívajíce robotizovaný systém (ACT MOS 496):

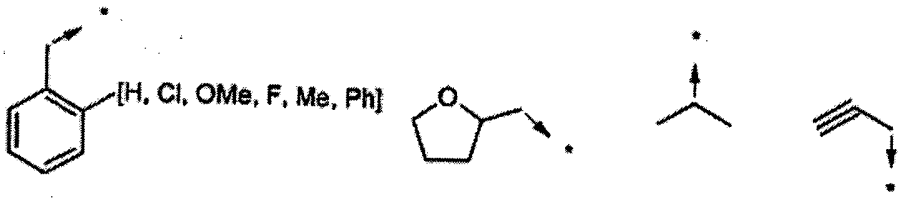
- Skupiny R1

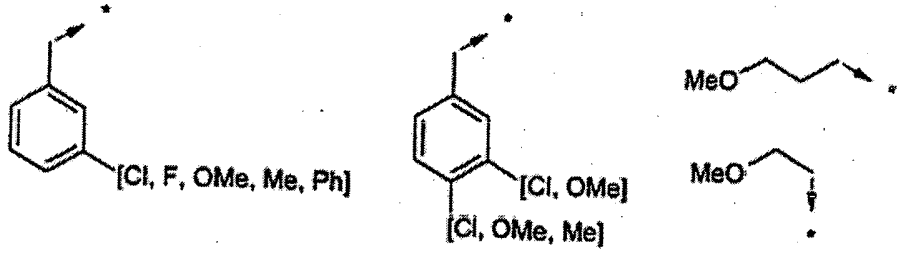


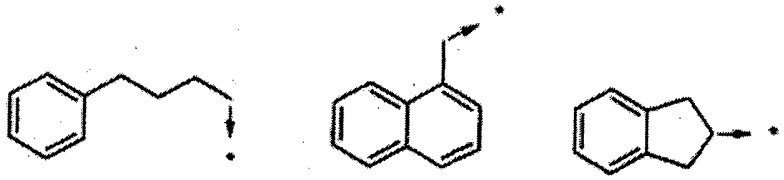
23.01.04

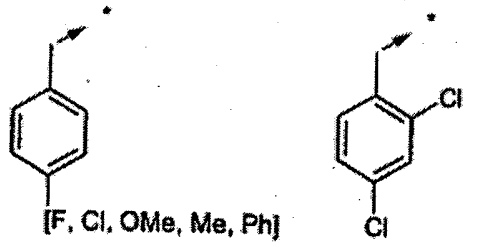




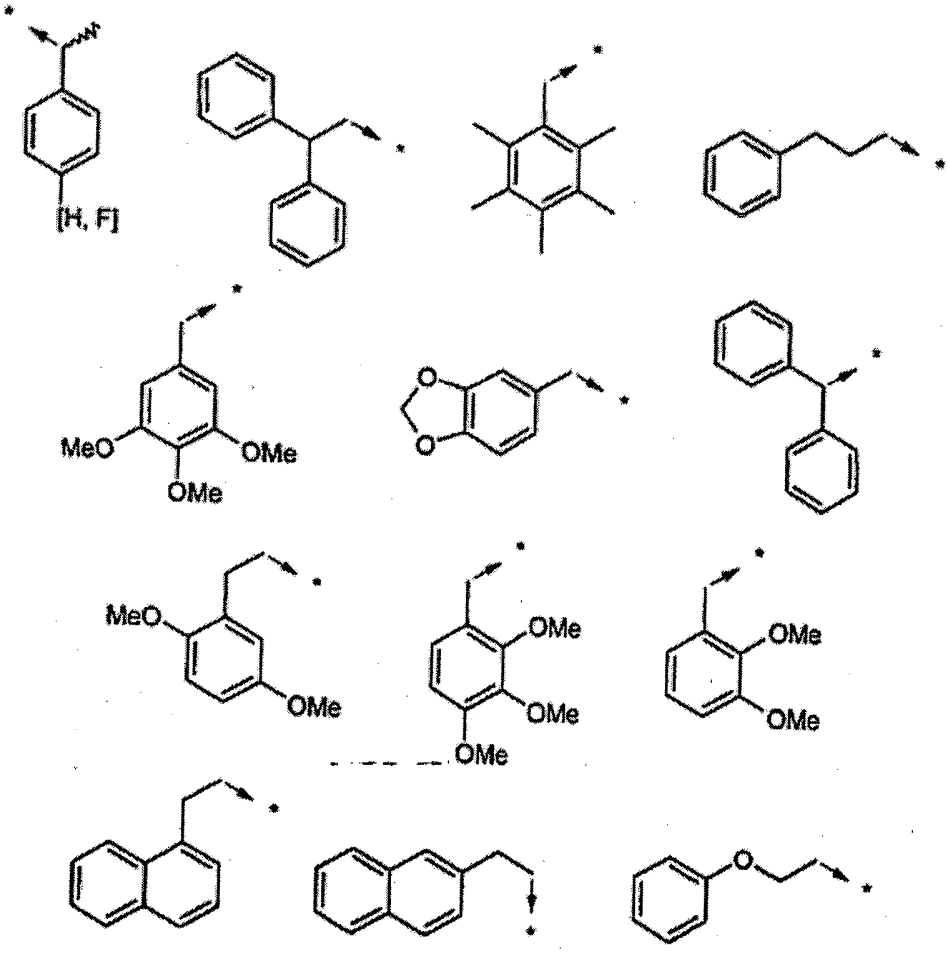

[H, Cl, OMe, F, Me, Ph]
O


[Cl, F, OMe, Me, Ph]
[Cl, OMe]
[Cl, OMe, Me]
MeO
MeO

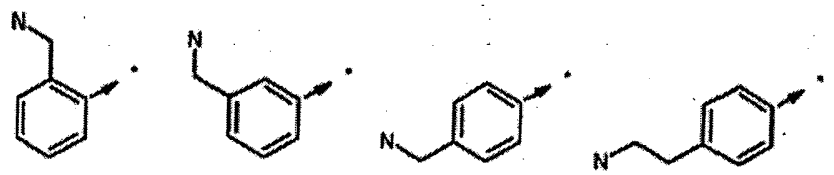



[F, Cl, OMe, Me, Ph]
Cl
Cl
[H, Cl, Me]

29.01.04



- Skupiny R2

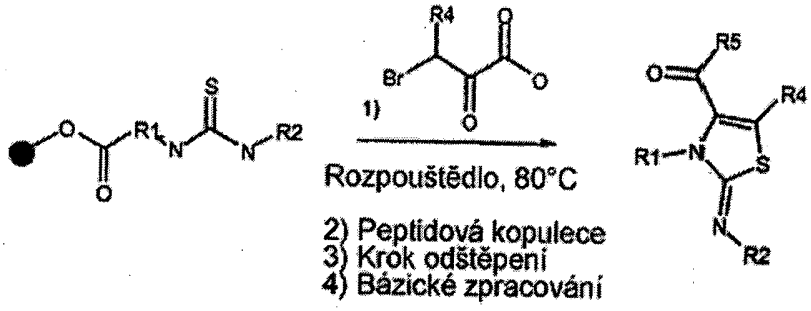


- Skupiny R3 a R4 jsou definovány stejně jako ve způsobu A

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Způsob C

Syntéza 2-arylimino-1,3-thiazol-4(3H)-karboxamidů



Obecný způsob: krok regioselektivní cyklizace pomocí kyseliny α-brompyrohroznové (2-5 ekv.) se provádí vycházejíce z thiomočovinové pryskyřice připravené ve způsobu A v aprotických rozpouštědlech jako je dioxan nebo DMF za teploty 80 °C po dobu 2-3 hodin. Pryskyřice se potom postupně promývá pomocí DMF, methanolem a DCM a potom se suší za sníženého tlaku. Peptidová kopulace (Knorr, R.; Trzeciak, A.; Bannwarth, W.; Gillessen, D. Tetrahedron Lett. 1989, 30, 1927-1930) probíhá v DMF za teploty okolí po dobu 1-24 hodin s různými klasickými kopulačními činidly (4-5 ekv.) jako jsou dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan de benzotriazolyloxytris-(dimethylamino)fosfonium (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyl-uronia (TBTU) a aminované sloučeniny (4-5 ekv.). Pryskyřice 2-arylimino-

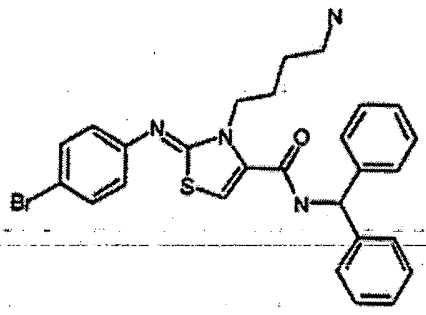
23.01.04

1,3-thiazol-4(3H)-karboxamidu se štěpí zpracováním v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1-2 hodin s následným promýváním pomocí DCM. Rozpouštědlo se odpaří a volná báze se izoluje po zpracování v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným), extrakci DCM nebo vymývání pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

Příklad 3

3-(4-aminobutyl)-N-benzhydryl-2-[(4-bromfenyl)imino]-1,3-thiazol-4(3H)-karboxamid

($C_{27}H_{27}BrN_4OS$, molekulová hmotnost = 535,51):



50 mg (27,5 mol, množství 0,55 mmol/g) pryskyřice karboxylové kyseliny se aktivuje po dobu 15 minut použitím 14,8 mg (0,11 mmol, 4 ekv.) N-hydroxybenzotriazolu a 35,3 mg (0,11 mmol, 4 ekv.) TBTU v 800 µl bezvodého DMF. Potom se přidá 20,7 mg (0,11 mmol, 4 ekv.) aminodifenylmethanu rozpuštěného v 200 µl bezvodého DMF a pryskyřice se

filtruje po míchání po jednu noc za teploty okolí. Postupné promývání pomocí DMF (5 x 1 ml), methanolem (5 x 1 ml) a DCM (5 x 1 ml) dává pryskyřici, která se zpracovává po dobu jedné a půl hodiny v kyselých podmínkách (DCM/kyselina trifluoroctová 50 %). Pryskyřice se proplachuje pomocí DCM (5 x 1 ml) a filtrát se odpaří za sníženého tlaku. Residuum, vyjmuté v methanolu, se vymývá v koloně oxidu hlinitého (500 mg, Interchim) a tím se získá bledě žlutá pevná látka (8,2 mg; výtěžek 55,7 %; čistota UV 94 % stanovena na vlnové délce 220 nm).

^{1}H NMR (DMSO D6,100 MHz, δ): 9,6 (d; 1H; J = 8,6 Hz; NH); 7,49 (d; 2H; J = 8,6 Hz); 7,35 (s; 10H); 6,92 (s; 1H; H azol); 6, 91 (d; 2H; J = 8,5 Hz); 6,27 (d; 1H; J = 8,5 Hz; NHCH); 4,02 (m; 2H; NCH_2); 3,45 (široký m; 2H+2H; NH_2 a NCH_2); 1,55-1,24 (široký m; 4H).

SM/CL: m/z = 535 (M+H).

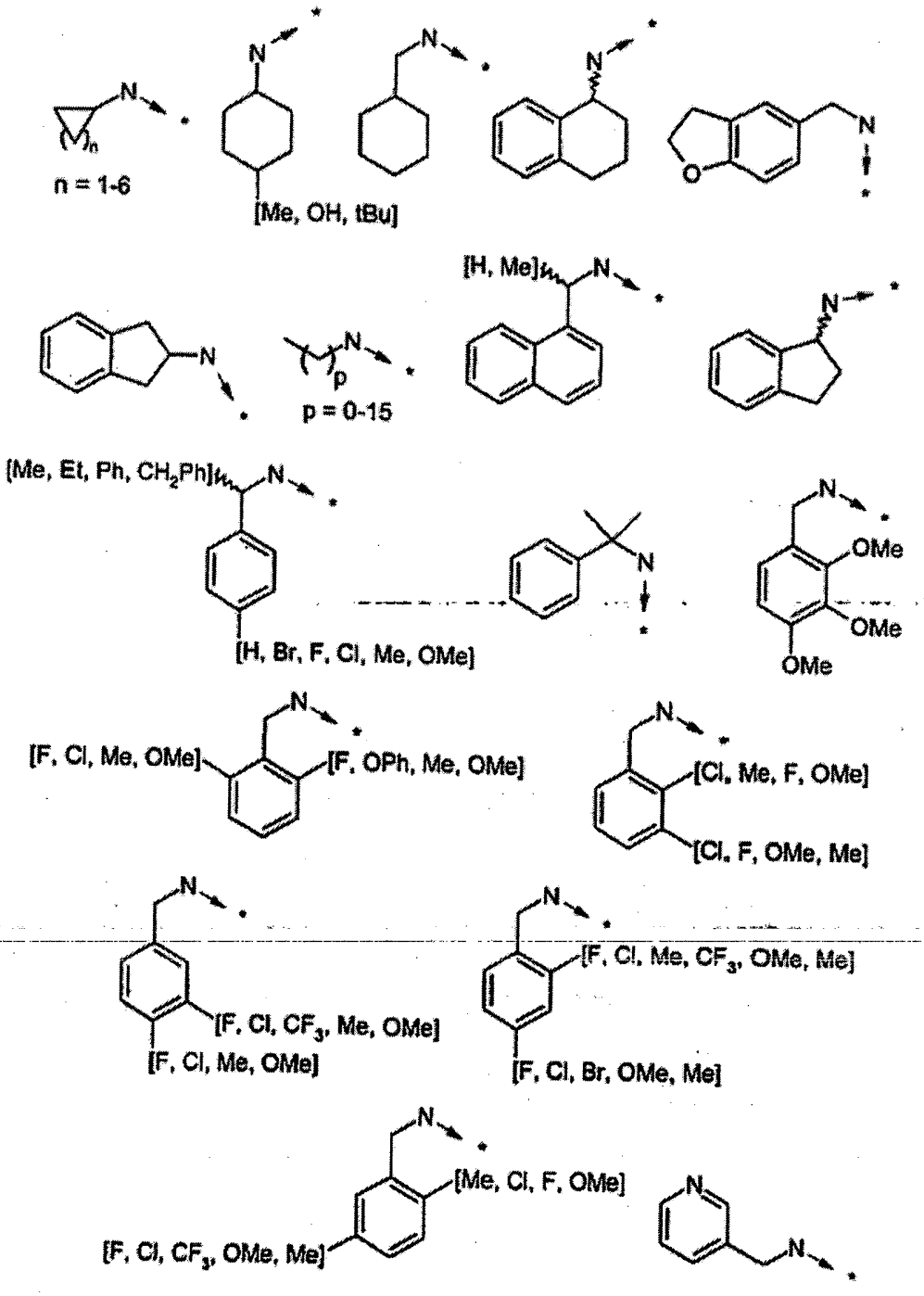
Série 2-arylimino-1,3-thiazol-4(3H)-karboxamidů byla syntetizována způsobem C, využívajíce robotizovaný systém (ACT MOS 496):

- Skupiny R1 a R2 již byly popsány ve způsobu A;

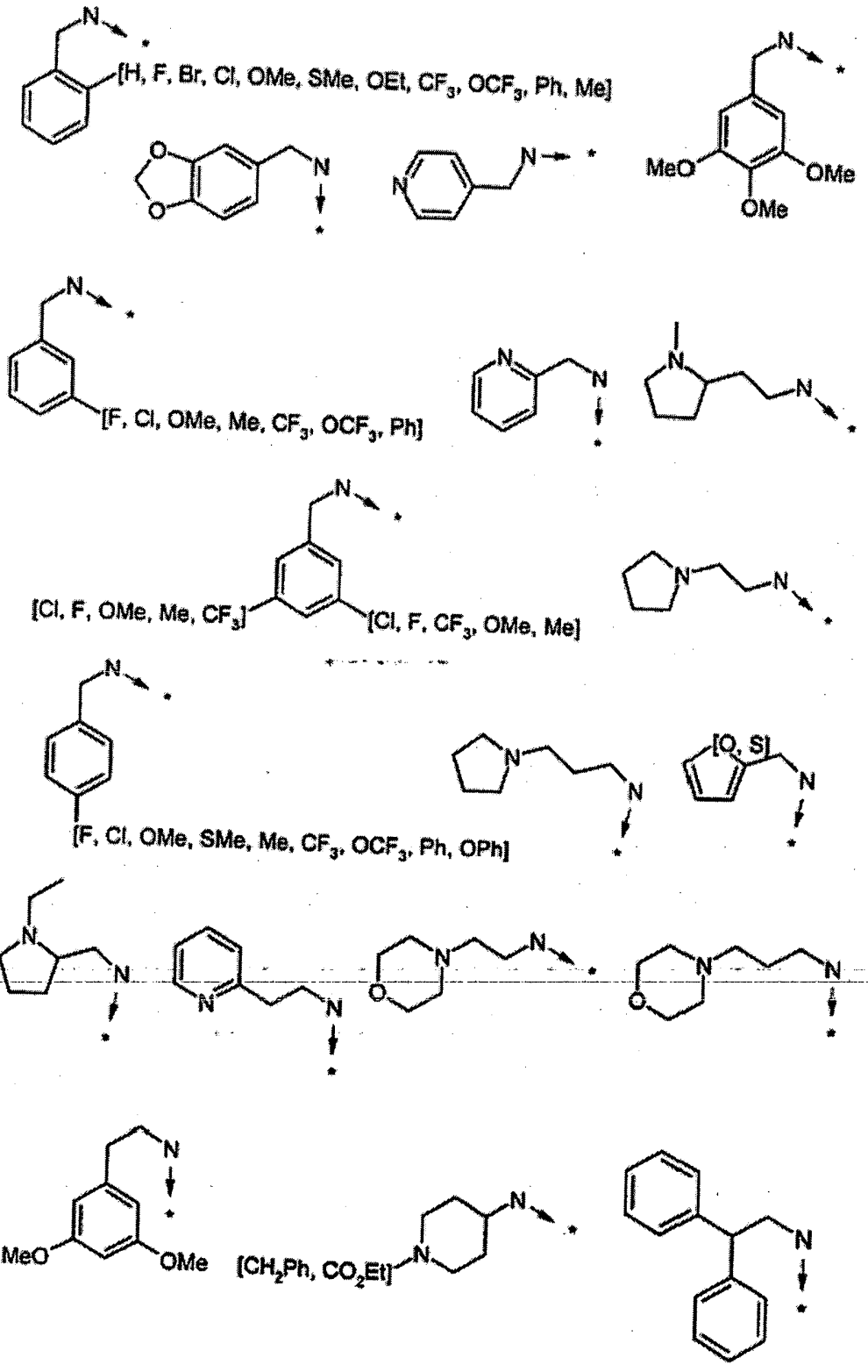
- R3 =-CO-R5;

- R4=H;

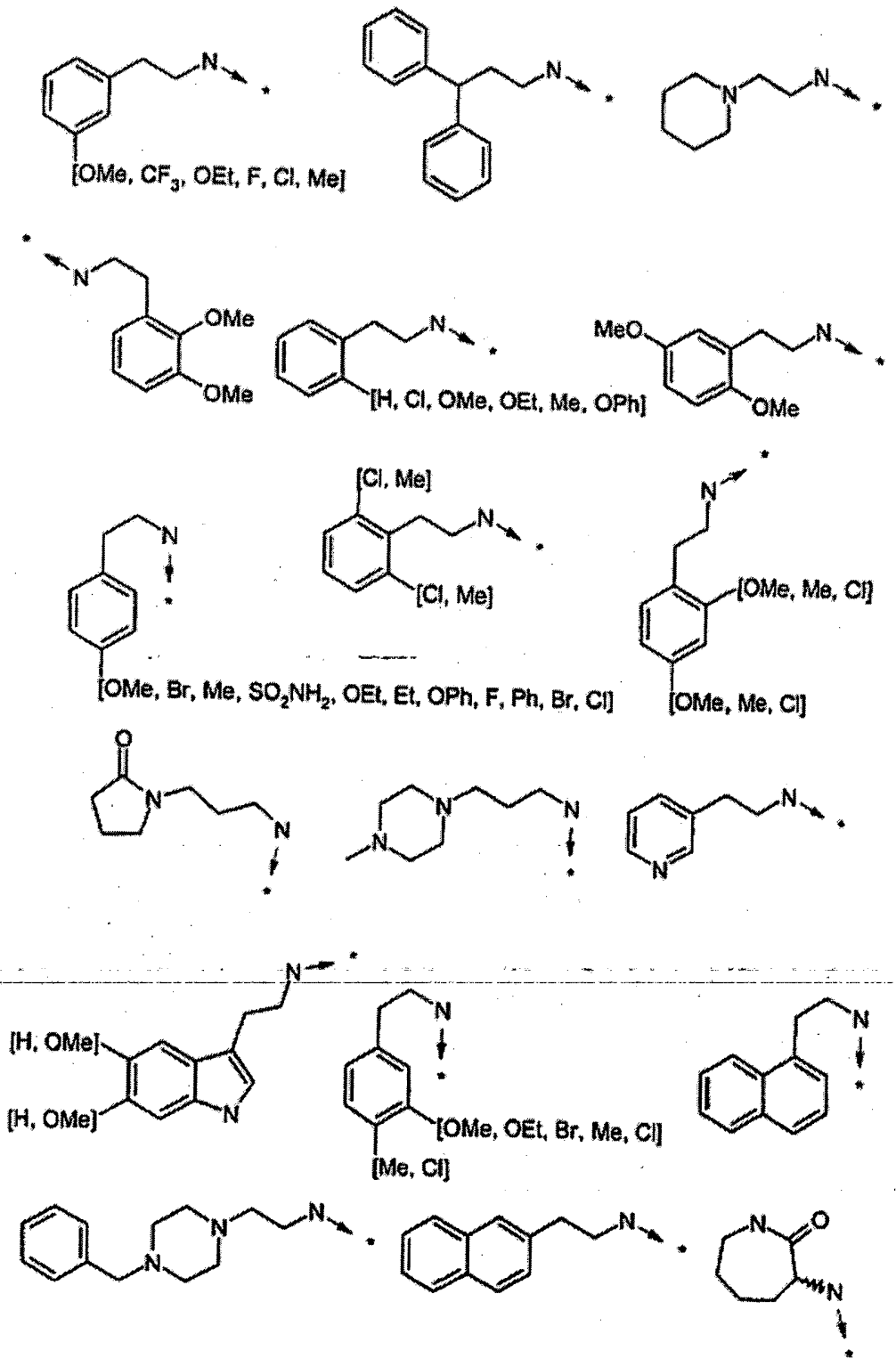
- Skupiny R5


n = 1-6
[Me, OH, tBu]
p = 0-15
[H, Me]
[Me, Et, Ph, CH2Ph]
[H, Br, F, Cl, Me, OMe]
OMe
OMe
OMe
[F, Cl, Me, OMe]
[F, OPh, Me, OMe]
[Cl, Me, F, OMe]
[Cl, F, OMe, Me]
[F, Cl, CF3, Me, OMe]
[F, Cl, Me, OMe]
[F, Cl, Me, CF3, OMe, Me]
[F, Cl, Br, OMe, Me]
[Me, Cl, F, OMe]
[F, Cl, CF3, OMe, Me]

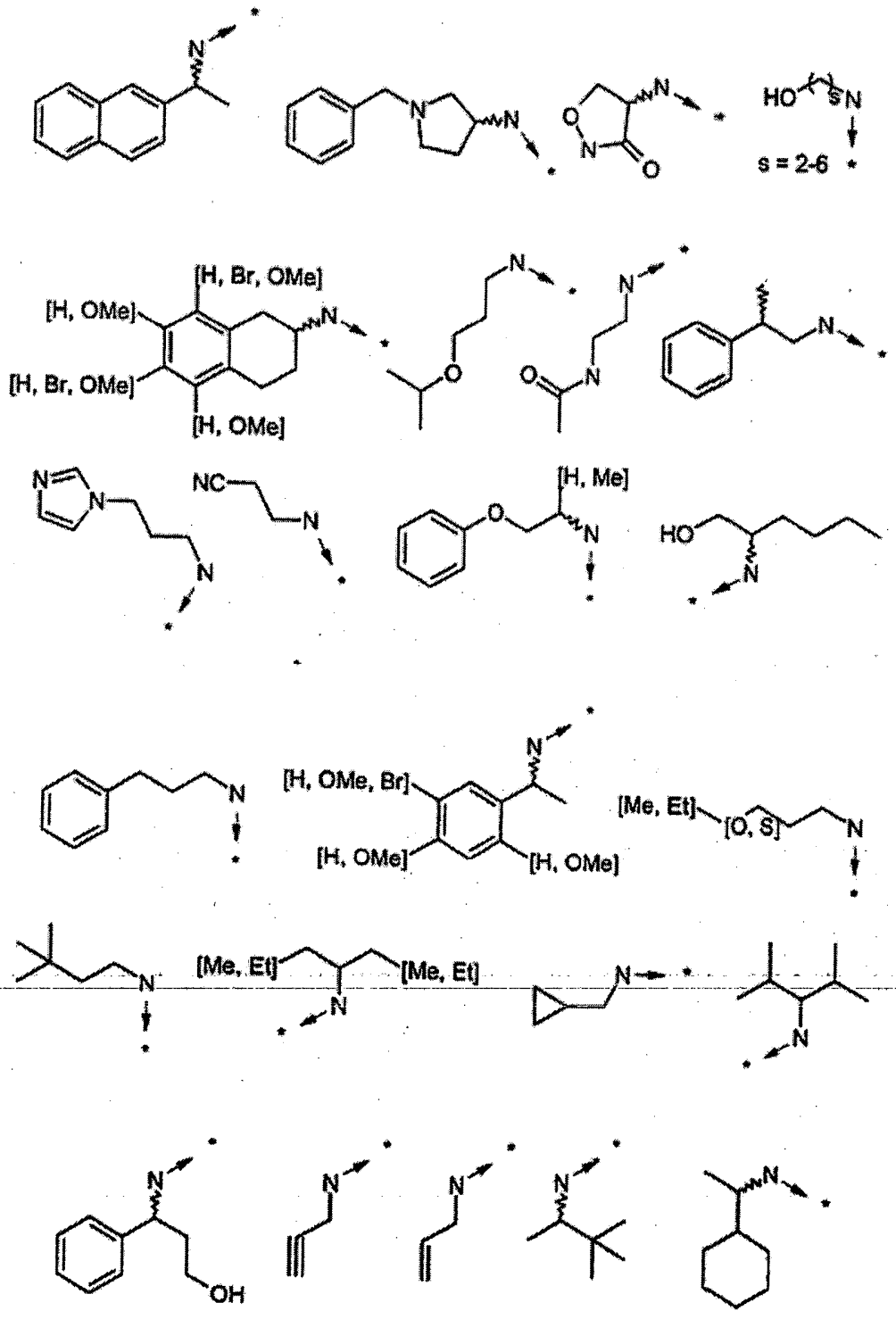
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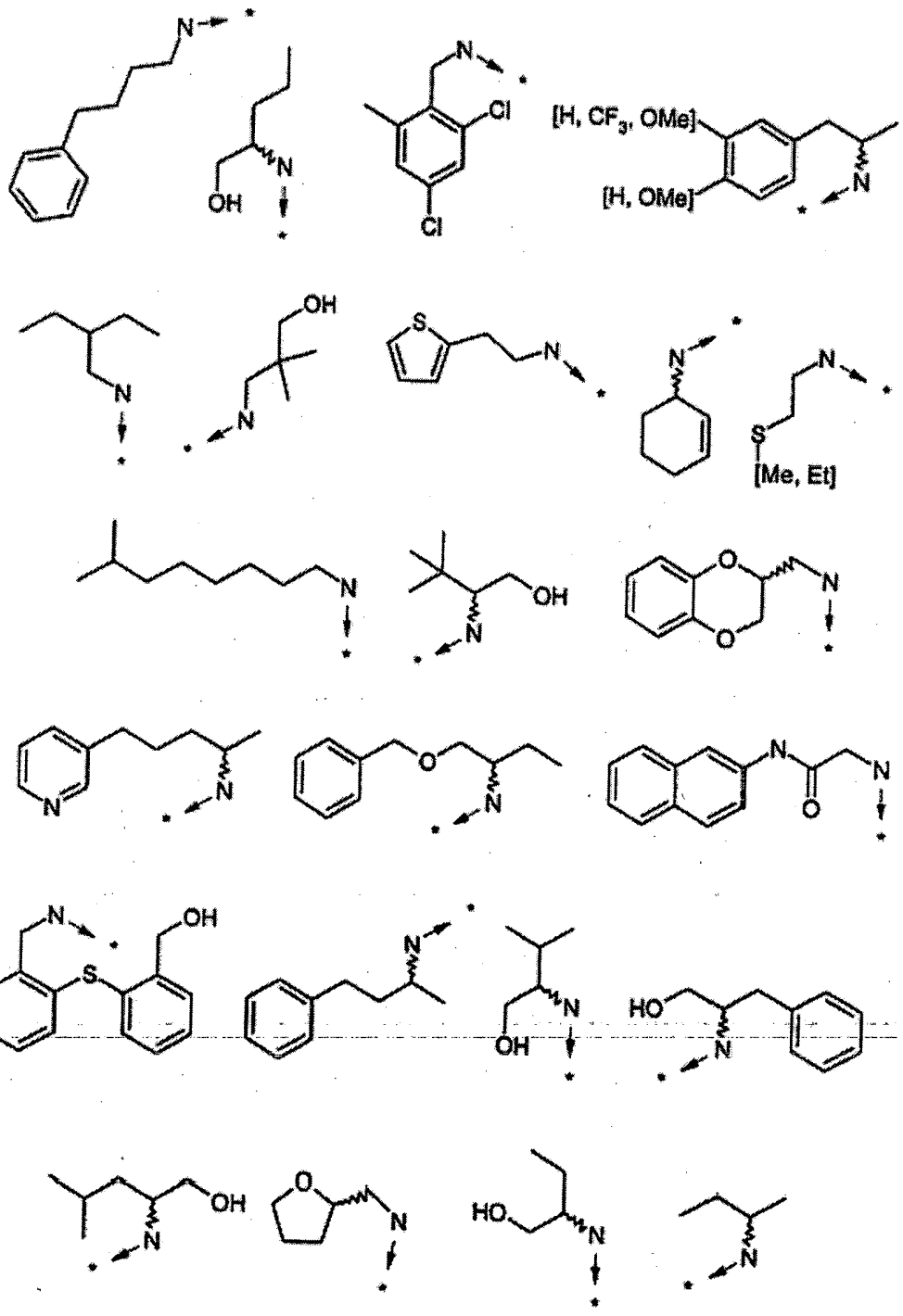

[H, F, Br, Cl, OMe, SMe, OEt, CF3, OCF3, Ph, Me]
MeO
OMe
OMe
[F, Cl, OMe, Me, CF3, OCF3, Ph]
[Cl, F, OMe, Me, CF3]
[Cl, F, CF3, OMe, Me]
[F, Cl, OMe, SMe, Me, CF3, OCF3, Ph, OPh]
[O, S]
MeO
OMe
[CH2Ph, CO2Et]

23.01.04

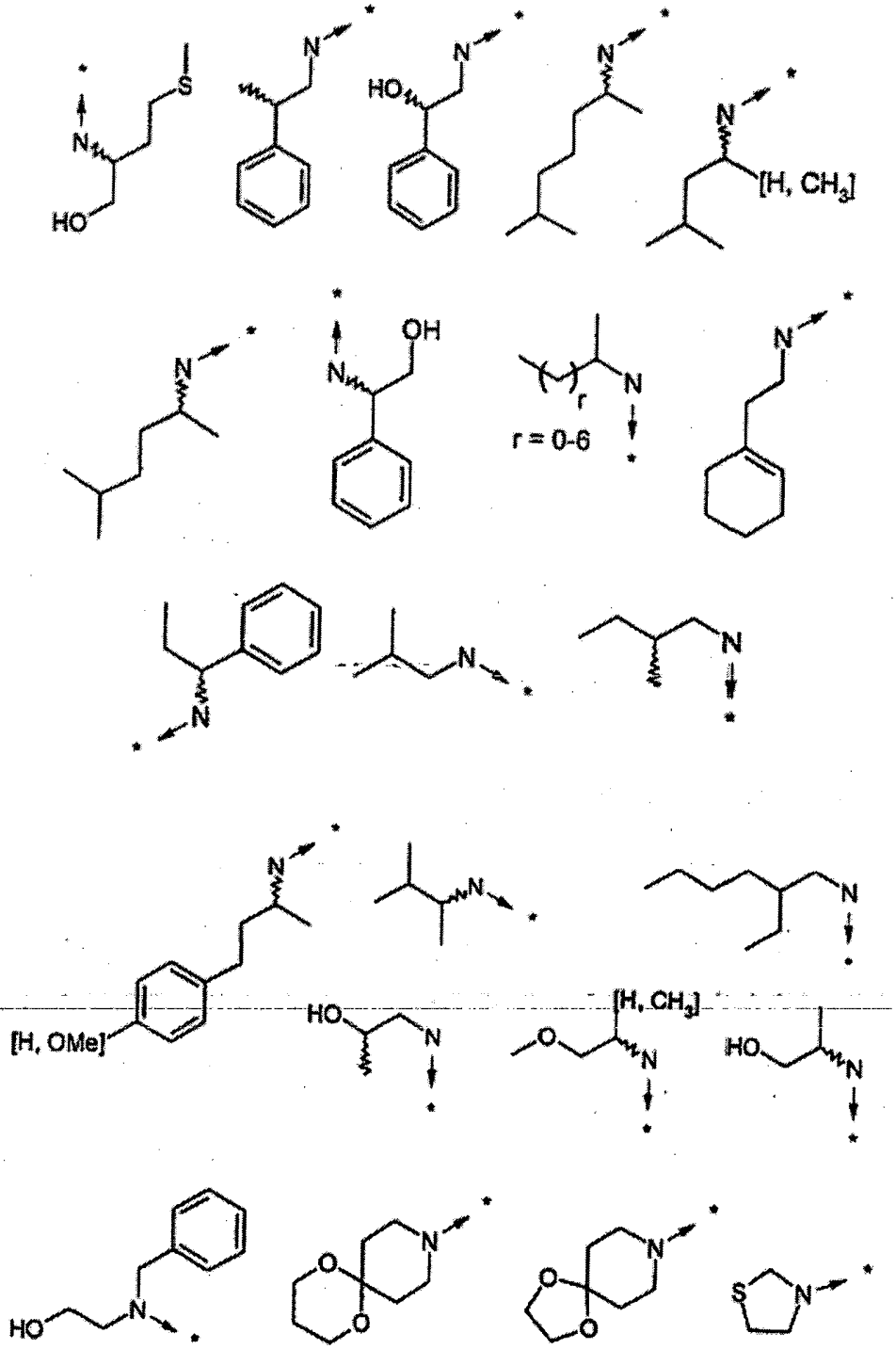

[OMe, CF_3, OEt, F, Cl, Me]
OMe
OMe
[H, Cl, OMe, OEt, Me, OPh]
MeO
OMe
[Cl, Me]
[Cl, Me]
[OMe, Me, Cl]
[OMe, Br, Me, SO_2NH_2, OEt, Et, OPh, F, Ph, Br, Cl]
[OMe, Me, Cl]
[H, OMe]
[H, OMe]
[OMe, OEt, Br, Me, Cl]
[Me, Cl]

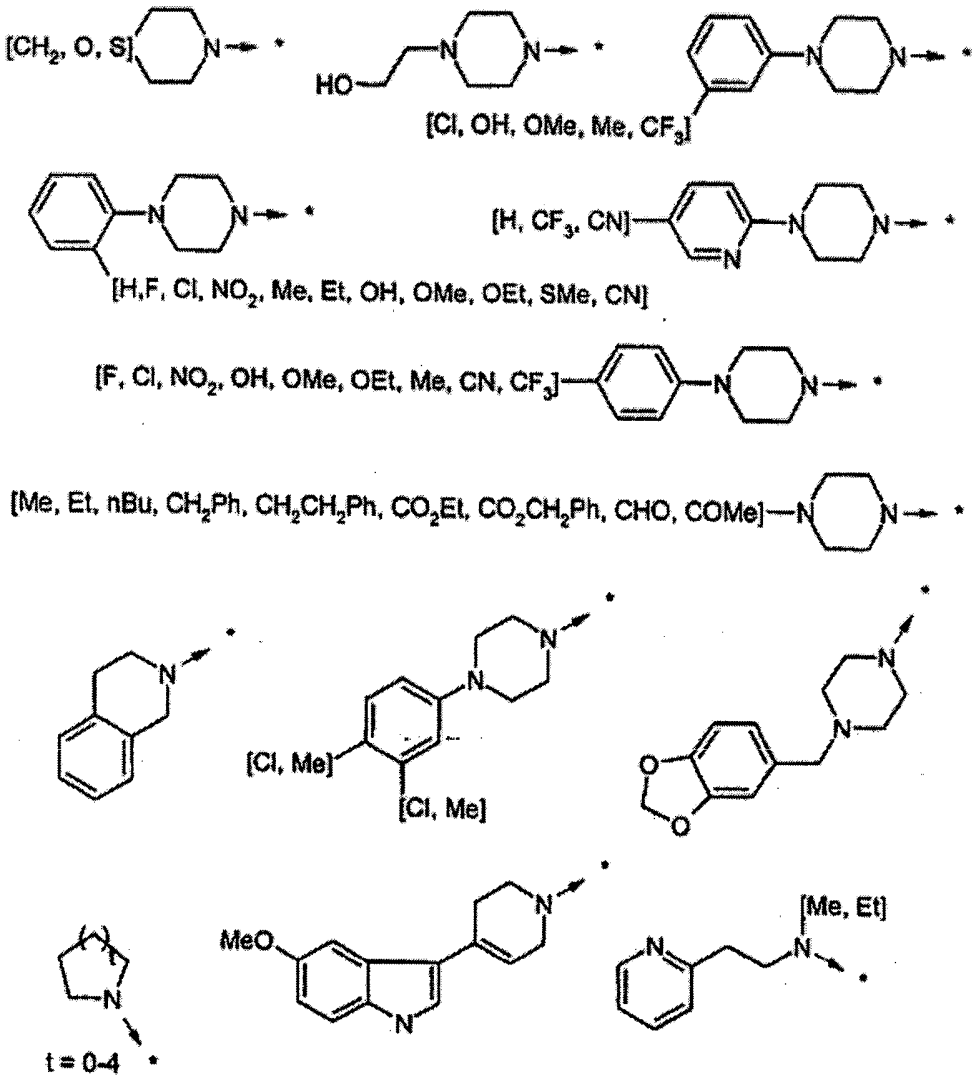
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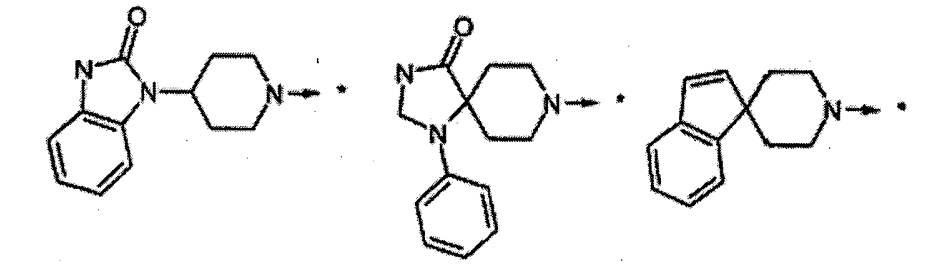

HO
s = 2-6
[H, Br, OMe]
[H, OMe]
[H, Br, OMe]
[H, OMe]
NC
[H, Me]
HO
[H, OMe, Br]
[H, OMe]
[H, OMe]
[Me, Et]
[O, S]
[Me, Et]
[Me, Et]
OH

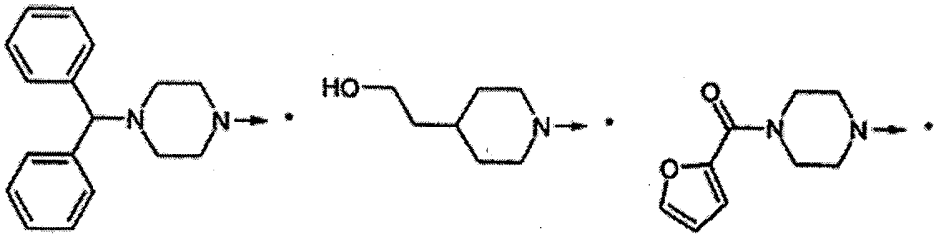

[H, CF3, OMe]
[H, OMe]
[Me, Et]

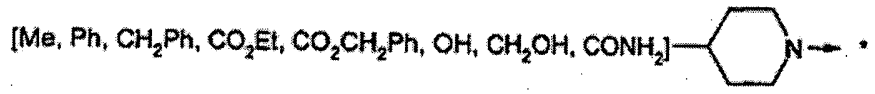
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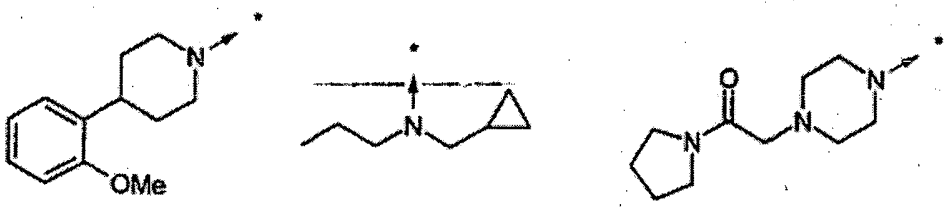

[CH2, O, S]
HO
[Cl, OH, OMe, Me, CF3]
[H,F, Cl, NO2, Me, Et, OH, OMe, OEt, SMe, CN]
[H, CF3, CN]
[F, Cl, NO2, OH, OMe, OEt, Me, CN, CF3]
[Me, Et, nBu, CH2Ph, CH2CH2Ph, CO2Et, CO2CH2Ph, CHO, COMe]
[Cl, Me]
[Cl, Me]
MeO
[Me, Et]
t = 0-4
[H, OMe]
[H, F]



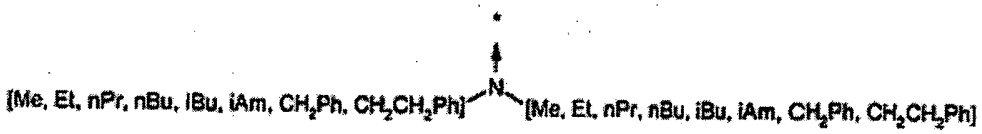




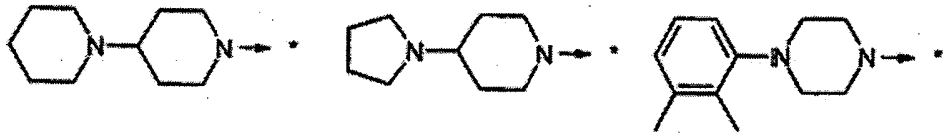
[Me, Ph, CH_2Ph, CO_2Et, CO_2CH_2Ph, OH, CH_2OH, $CONH_2$]



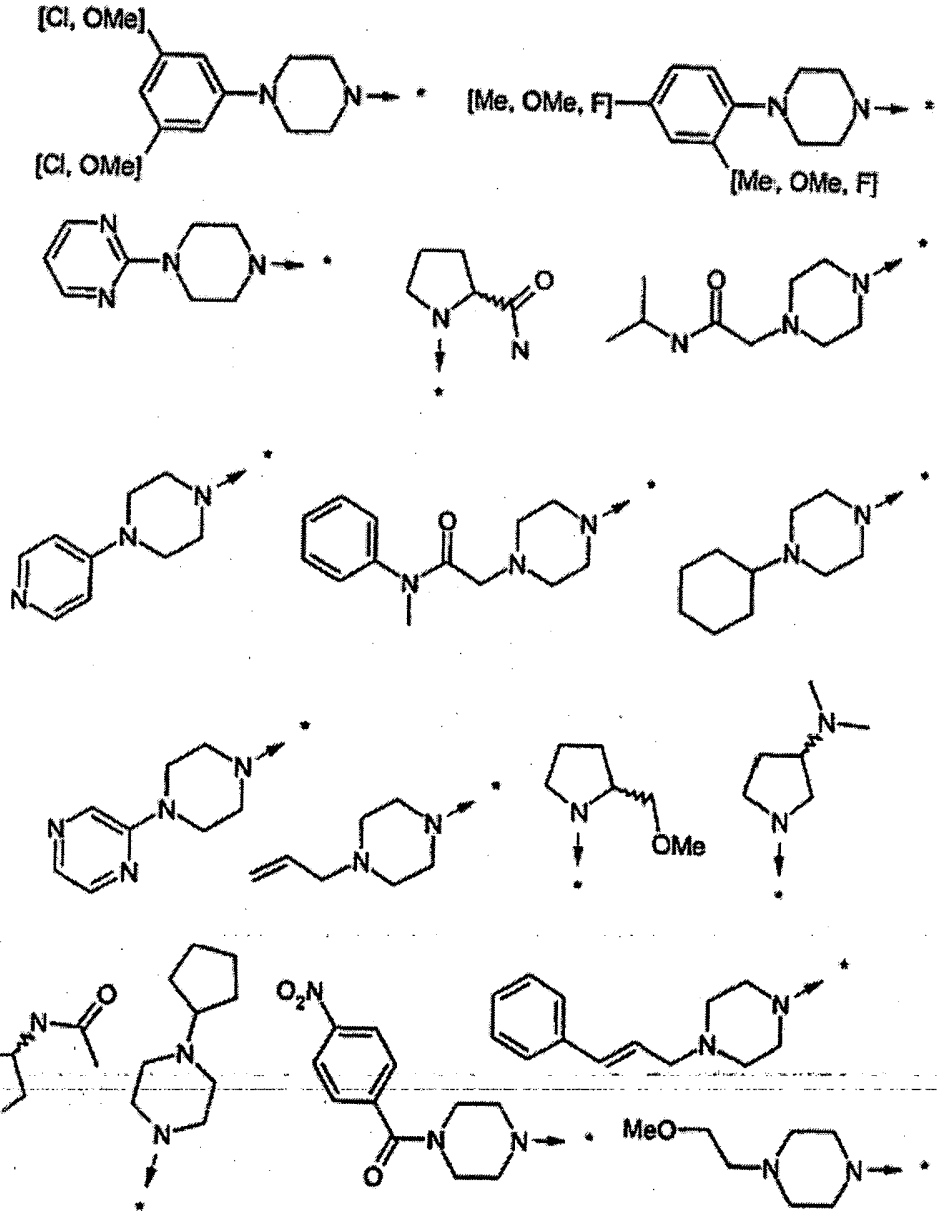
[Me, CH_2Ph, COMe, CHO]



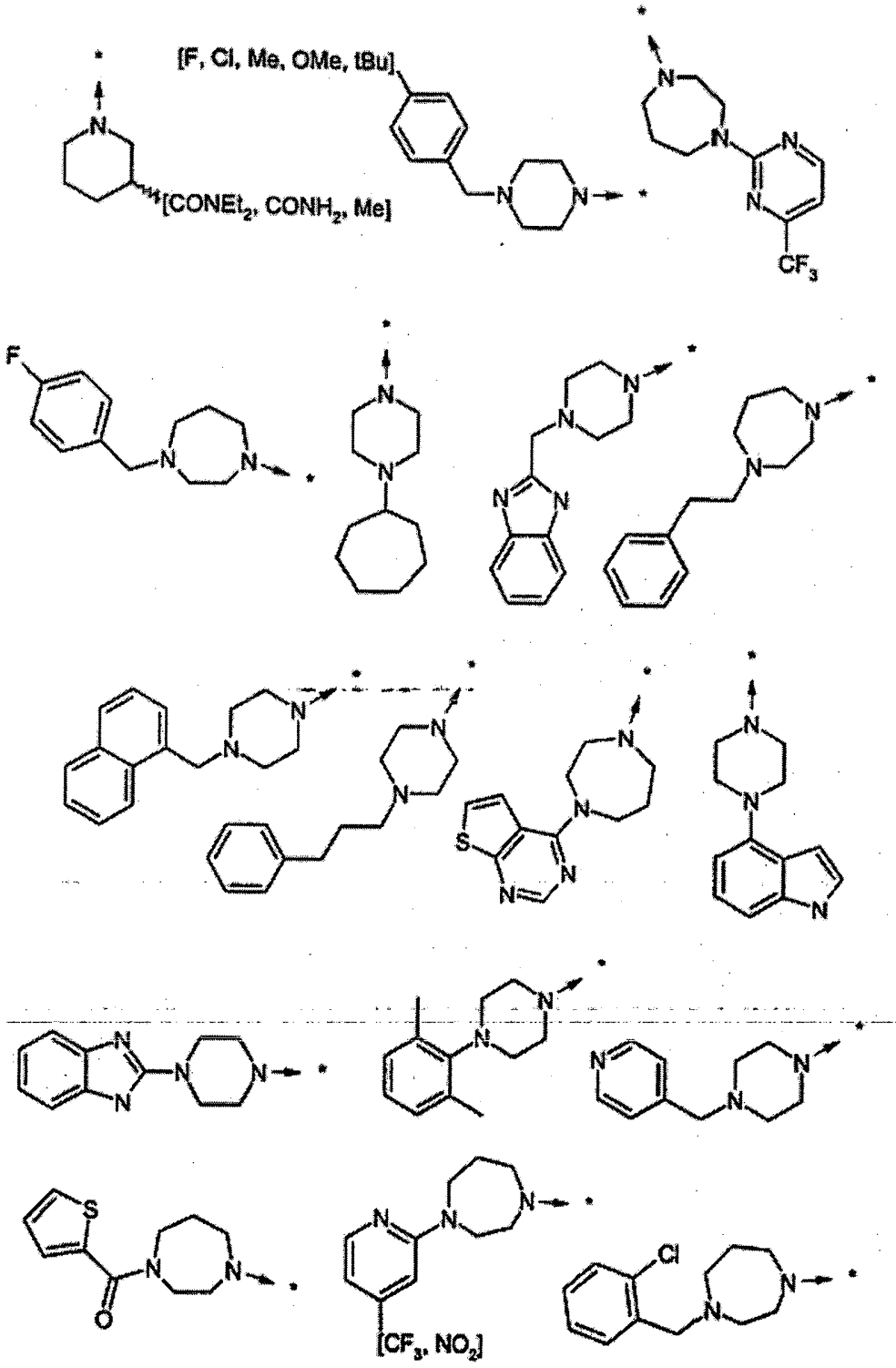
[Me, Et, nPr, nBu, iBu, iAm, CH_2Ph, CH_2CH_2Ph] [Me, Et, nPr, nBu, iBu, iAm, CH_2Ph, CH_2CH_2Ph]

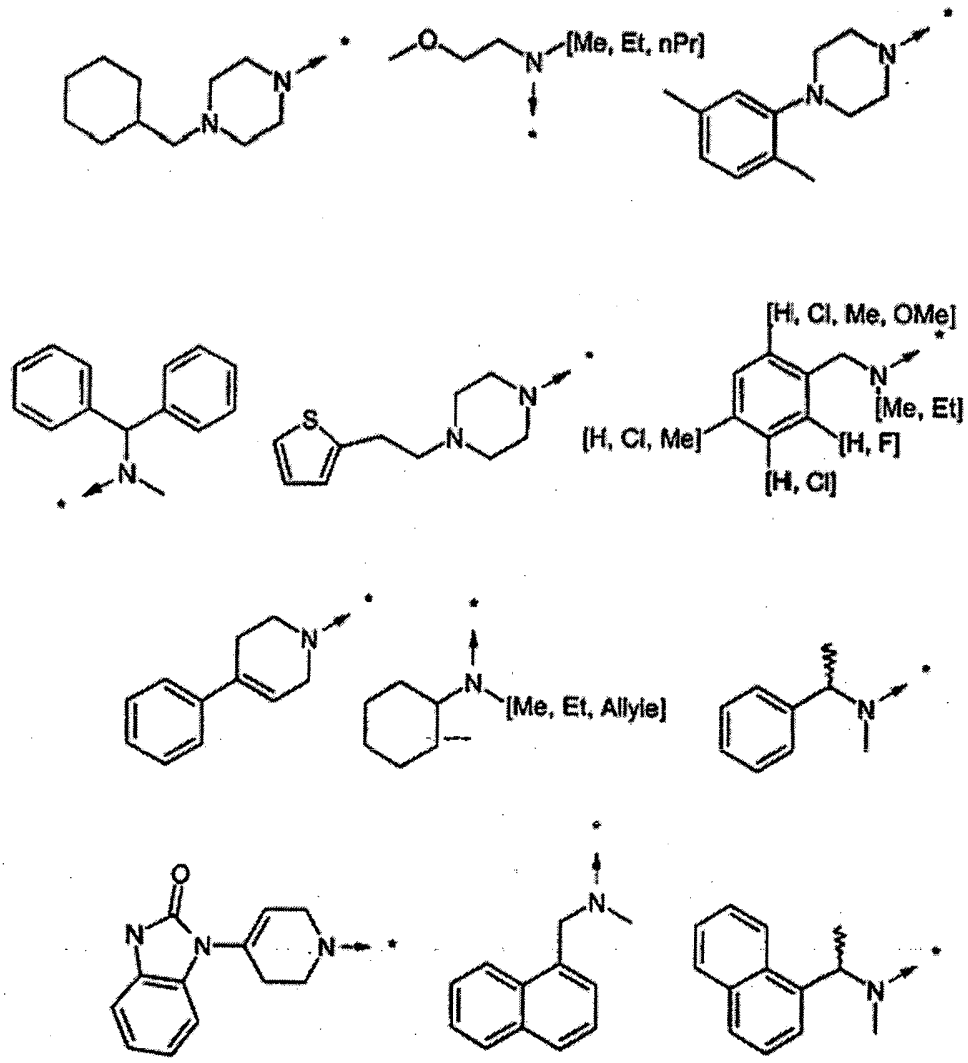


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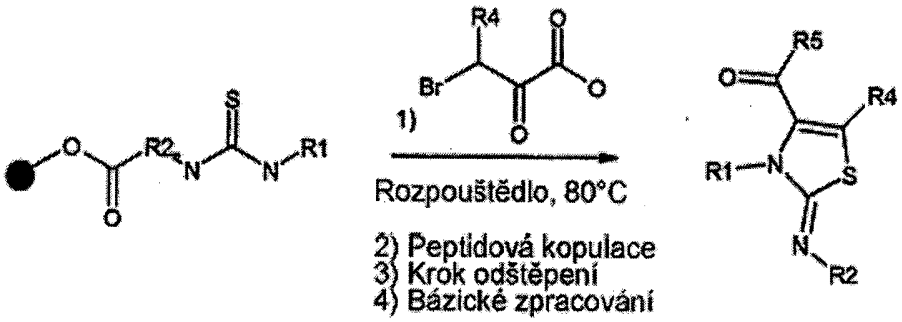
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Způsob D

Syntéza 2-arylimino-1,3-thiazol-4(3H)-karboxamidů



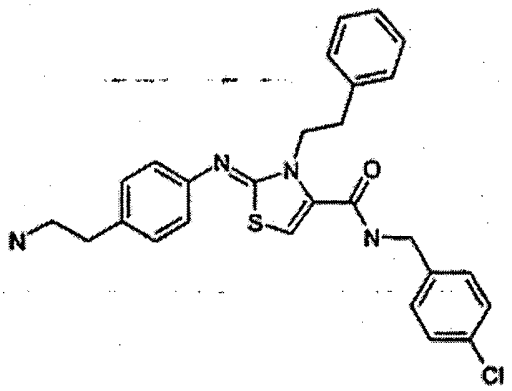
Obecný způsob: krok regioselektivní cyklizace pomocí kyseliny α-brompyrohroznové (2-5 ekv.) se provádí vycházejíce z thiomočovinové pryskyřice připravené způsobem B v aprotických rozpouštědlech jako je dioxan nebo DMF za teploty 80 °C po dobu 2-3 hodin. Pryskyřice se potom postupně promývá pomocí DMF, methanolem a DCM a potom se suší za sníženého tlaku. Peptidová kopulace (Knorr, R.; Trzeciak, A.; Bannwarth, W.; Gillessen, D. Tetrahedron Lett. 1989,30, 1927-1930) probíhá v DMF za teploty okolí po dobu 1-24 hodin s různými klasickými kopulačními činidly (4-5 ekv.) jako je dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan benzotriazolyloxytris (dimethylamino) fosfonia (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (TBTU) a aminované sloučeniny (4-5 ekv.). Pryskyřice 2-arylimino-1,3-thiazol-4(3H)-karboxamidu se štěpí zpracováním v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1-2 hodin s následným promýváním pomocí DCM.

Rozpouštědlo se odpaří a volná báze se izoluje po zpracování v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným) s následnou extrakcí pomocí DCM nebo vymýváním pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

Příklad 4

(2Z)-2-{[4-(2-aminoethyl)fenyl]imino}-N-4-chlorbenzyl)-3-(2-fenylthyl)-2,3-dihydro-1,3-thiazol-4-karboxamid

($C_{27}H_{27}ClN_4OS$, molekulová hmotnost = 491, 05):



Do 200 mg (190 mol, množství 0, 946 mmol/g) aminované pryskyřice (viz příprava 20) se přidá fenylthylisothiokyanát (310 mg; 1,9 mmol; 10 ekv.) v 3 ml dimethylformamidu. Po míchání po jednu noc za teploty okolí je Kaiserův ninhydrinový test negativní. Pryskyřice se potom postupně promývá pomocí DMF (5 x 3 ml) a DCM (5 x 3 ml) a potom se suší za vakua po dobu jedna hodina před přidáním kyseliny brompyrohroznové (63, 4 mg; 380, mol; 2

ekv.) předem zředěné v 3 ml dimethylformamidu. Směs se míchá po dobu 2, 5 hodin za teploty 80 °C. Pryskyřice se potom filtruje a promývá v DMF (5 x 3 ml), methanolu (3 x 3 ml) a potom DCM (5 x 3 ml). Pryskyřice karboxylové kyseliny se preaktivuje po dobu 1 hodiny pomocí 244 mg (0, 76 mmol; 4 ekv.) TBTU zředěného v 2 ml bezvodého DMF. 110 mg (0, 76 mmol; 4 ekv.) Potom se přidá 4-chlorbenzylamin rozpuštěný v 1 ml bezvodého DMF a pryskyřice se filtruje po jedné noci za míchání za teploty okolí. Postupné promývání pomocí DMF (5 x 3 ml), methanolem (3 x 3 ml) a DCM (3 x 3 ml) dává pryskyřici, která se zpracovává po dobu jedné a půl hodiny v kyselých podmínkách (DCM/kyselina trifluoroctová 50 %). Pryskyřice se proplachuje pomocí DCM (5 x 1 ml) a filtrát se odpaří za sníženého tlaku. Residuum, vyjmuté v DCM, se neutralizuje roztokem nasyceného hydrogenuhličitanu sodného a po odpaření se získá pevná látka (38, 2 mg; výtěžek 41 %; čistota UV 90% určena na vlnové délce 210 nm).

^{1}H NMR (DMSO D6, 400 MHz, δ): 9,1 (m, 1H); 7,39 (d, 2H, J = 8,4 Hz); 7,33 (d, 2H, J = 8,4 Hz); 7,25 (q, 2H, J = 6,8 Hz); 7,19 (q, 1H, J = 7,2 Hz); 7,11 (m, 4H); 6,8 (d, 2H, J = 8 Hz); 6,75 (s, 1H, H azol); 4,34 (d, 2H, J = Hz); 4,27 (t, 2H, J = 6,8 Hz); 3,14 (m, 1H); 2,89 (t, 2H, J = 6,8 Hz); 2,73 (t, 1H, J = 7,2 Hz); 2,62 (m, 2H).
SM/CL: m/z = 491,24 (M+H)+.

Série 2-arylimino-1,3-thiazol-4.(3H)-karboxamidů byla syntetizována způsobem D, využívajíce robotizovaný systém (ACT MOS 496):

- Skupiny R1 a R2 již byly popsány ve způsobu B

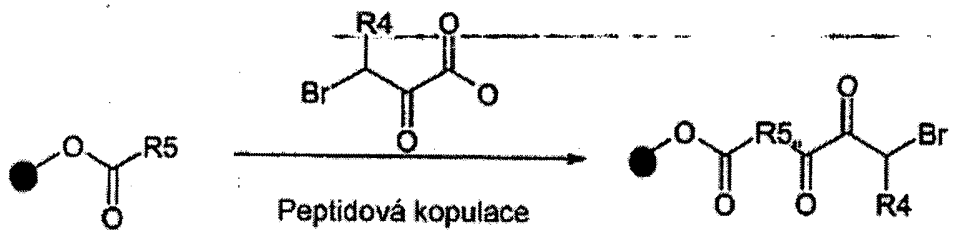
- R3 =-CO-R5

- R4=H

- Skupiny R5 již byly popsány ve způsobu C.

Způsob E

Příprava diaminové pryskyřice s jednou chráněnou skupinou funkcionalizované kyselinou α-brompyrohroznovou

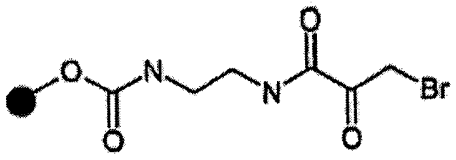


Obecný způsob: pryskyřice primárního nebo symetrického sekundárního diaminu s jednou chráněnou skupinou (jejíž příprava je již popsána ve způsobu A) se funkcionalizuje peptidovou kopulací s kyselinou α-brompyrohroznovou (10 ekv.), DIC (10 ekv.) a HOBt (10 ekv.) v rozpouštědle jako je DMF za teploty okolí. Pryskyřice se postupně promývá DMF a potom DCM po 2 až 24 hodinách míchání před sušením za vakua. Negativní Kaiserův ninhydrinový test indikuje úplnou funkcionalizaci.

 23.01.04

Příprava 22

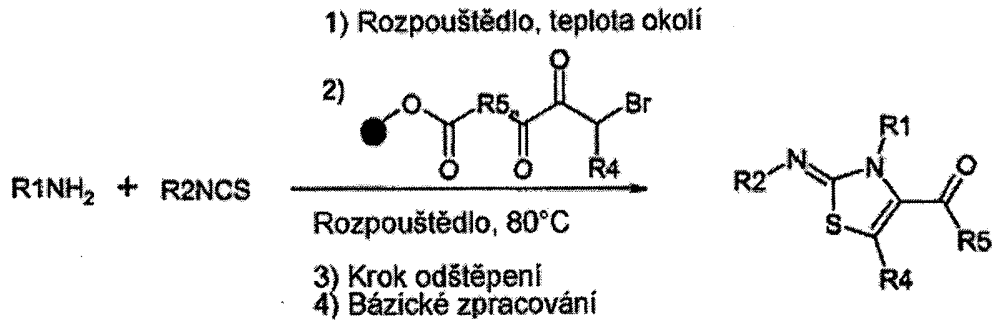
Wangova pryskyřice N-karbamátu 2-[(3-brom-2-oxopropanoyl) amino]ethylu



HOBt (0,93 g, 6,88 mmol) a kyselina α-brompyrohroznová (1,18 g, 6,88 mmol) se rozpustí v 28 ml DMF (0,5 M). Potom se stříkačkou přidá DIC (1,07 ml; 6,88 mmol) pro aktivaci kyseliny. Směs se míchá směs přibližně 15 minut za teploty okolí před přidáním Wangovy pryskyřice N-karbamátu ethylendiaminu (0,8 g; 0,688 mmol; množství 0,86 mmol/g). Po 3 hodinách míchání za teploty okolí, kdy Kaiserův ninhydrinový test je negativní, se pryskyřice filtruje a promývá postupně DMF (5 x 20 ml) a potom DCM (5 x 20 ml) před sušením za vakua. Okrově zbarvená pryskyřice (0,812 g) se získá v množství 0,525 mmol/g vypočteno vycházejíce z elementární analýzy bromu.

Syntéza 2-arylimino-1,3-thiazol-4(3H)-karboxamidů

23.01.04

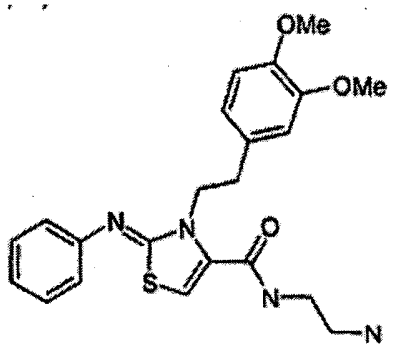


Obecný způsob: vytvoření thiomočoviny se provádí v rozpouštědle jako je DMF nebo dioxan smícháním ekvimolárního množství primárního aminu a aromatického nebo heteroaromatického isothiokyanátu. Po uplynutí 2 až 24 hodin míchání za teploty okolí se thiomočovina (2 až 5 ekv.) přidá do funkcionalizované pryskyřice a potom zahřívá na teplotu 80 °C po dobu 2 až 4 hodin. Pryskyřice 2-arylimino-1,3-thiazol-4(3H)-karboxamidu se štěpí zpracováním v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1-2 hodiny s následným promýváním pomocí DCM. Rozpouštědlo se odpaří a volná báze se izoluje po zpracování v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným), extrakce pomocí DCM nebo vymývání pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

Příklad 5

(2Z)-N-(2-aminoethyl)-3-[2-(3,4-dimethoxyfenyl)ethyl]-2-(fenylimino)-2,3-dihydro-1,3-thiazol-4-karboxamid

($C_{22}H_{26}N_4O_3S$, molekulová hmotnost = 426,54):



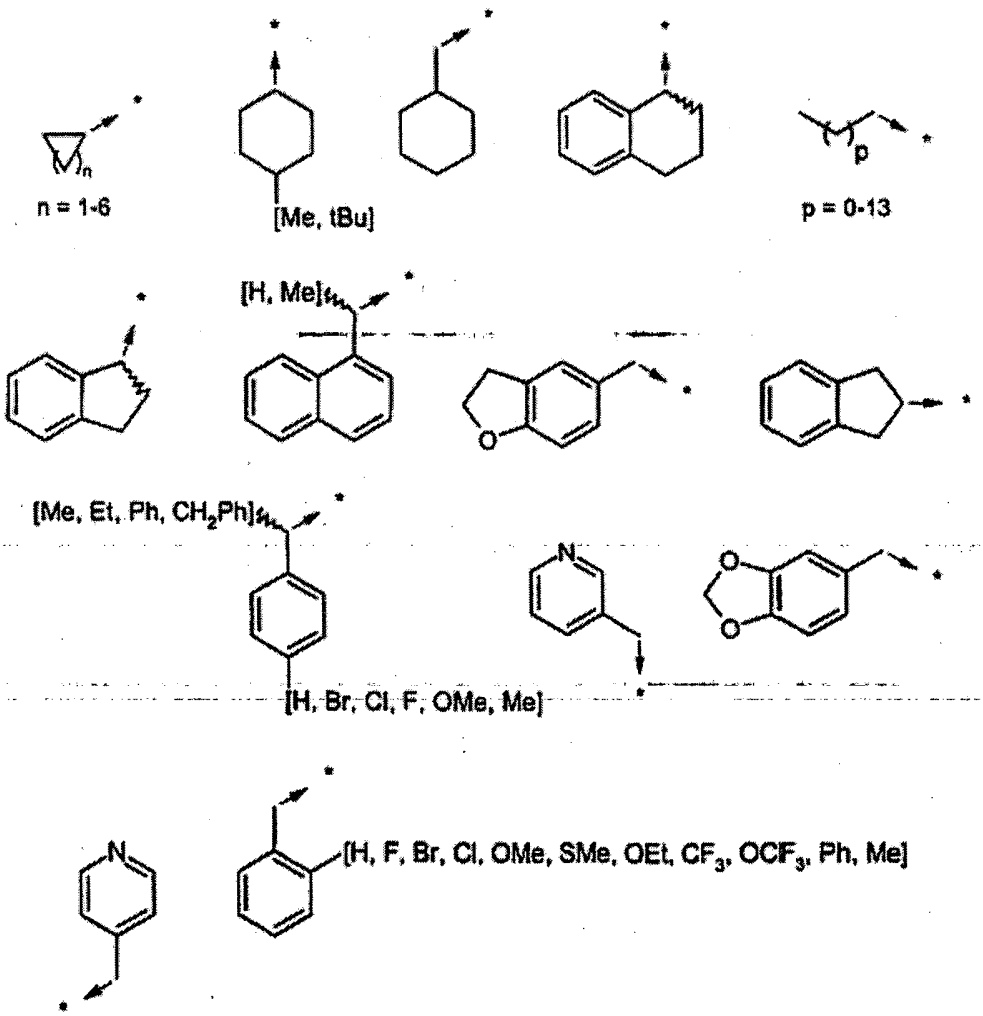
18 µl (105 µmol; 2 ekv.) β-(3,4-dimethoxyfenyl)ethylaminu a 12,6 µl (105 µmol; 2 ekv.) fenylisothiokyanátu se míchají v 1 ml DMF po dobu 18 hodin. Thiomočovina 100 mg (52,5 µmol; množství 0,525 mmol/g) se přidá do pryskyřice (příprava 22) a směs se zahřívá na teplotu 80 °C po dobu 3 hodin. Pryskyřice se potom filtruje a potom promývá postupně pomocí DMF (5 x 1 ml), methanolem (5 x 1 ml) a potom DCM (5 x 1 ml). Pryskyřice se suší za vakua před přidáním 1 ml směsi DCM/TFA 50%. Pryskyřice se míchá 1,5 hodin za teploty okolí, filtruje a promývá DCM. Residuum získané po odpaření se potom vymývá methanolem v koloně oxidu hlinitého pro izolaci 22,2 mg (kvantitativní výtěžek; čistota UV 93,4% určeno na vlnové délce 230 nm) hnědé pevné látky, odpovídající volnému aminu.

^{1}H NMR (DMSO D6,100 MHz, δ): 8,42 (m, 1H, NH); 7,32 (t, 2H, J = 7,1 Hz); 7,08-6,63 (m, 6H); 5,76 (s, 1H, H azol); 4,31 (t, 2H, J = 6,6 Hz); 3,72 (s, 6H, OCH_3); 3,32 (široký s, 2H); 3,17 (m, 2H); 2,89 (m, 2H); 2,62 (m, 2H).

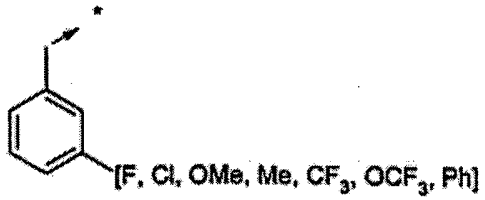
SM/CL: m/z = 427,17 (M+H)+.

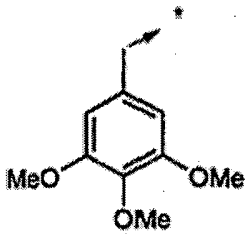
Série 2-arylimino-1,3-thiazol-4(3H)-karboxamidů byla syntetizována způsobem E, využívajíce robotizovaný systém (ACT MOS 496):

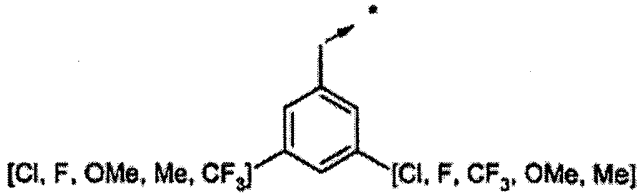
Skupiny R1:

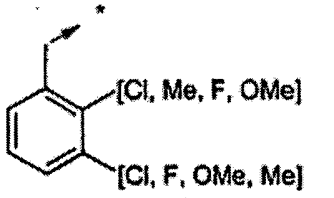


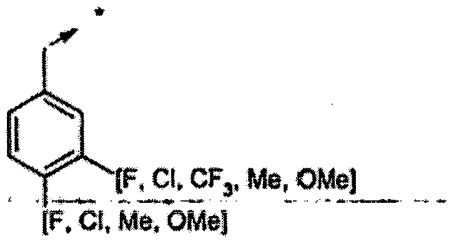
23.01.04

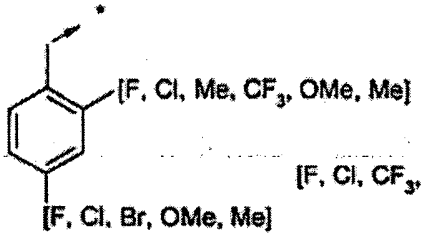

[F, Cl, OMe, Me, CF3, OCF3, Ph]

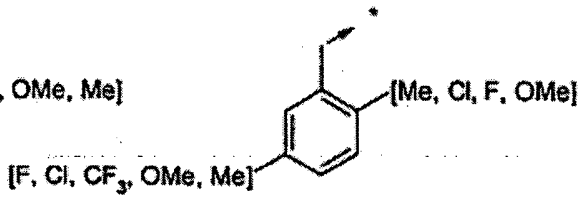

MeO
OMe
OMe

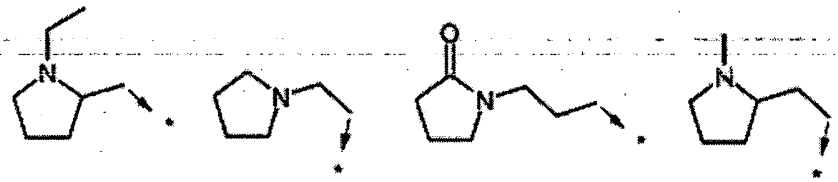

[Cl, F, OMe, Me, CF3]
[Cl, F, CF3, OMe, Me]

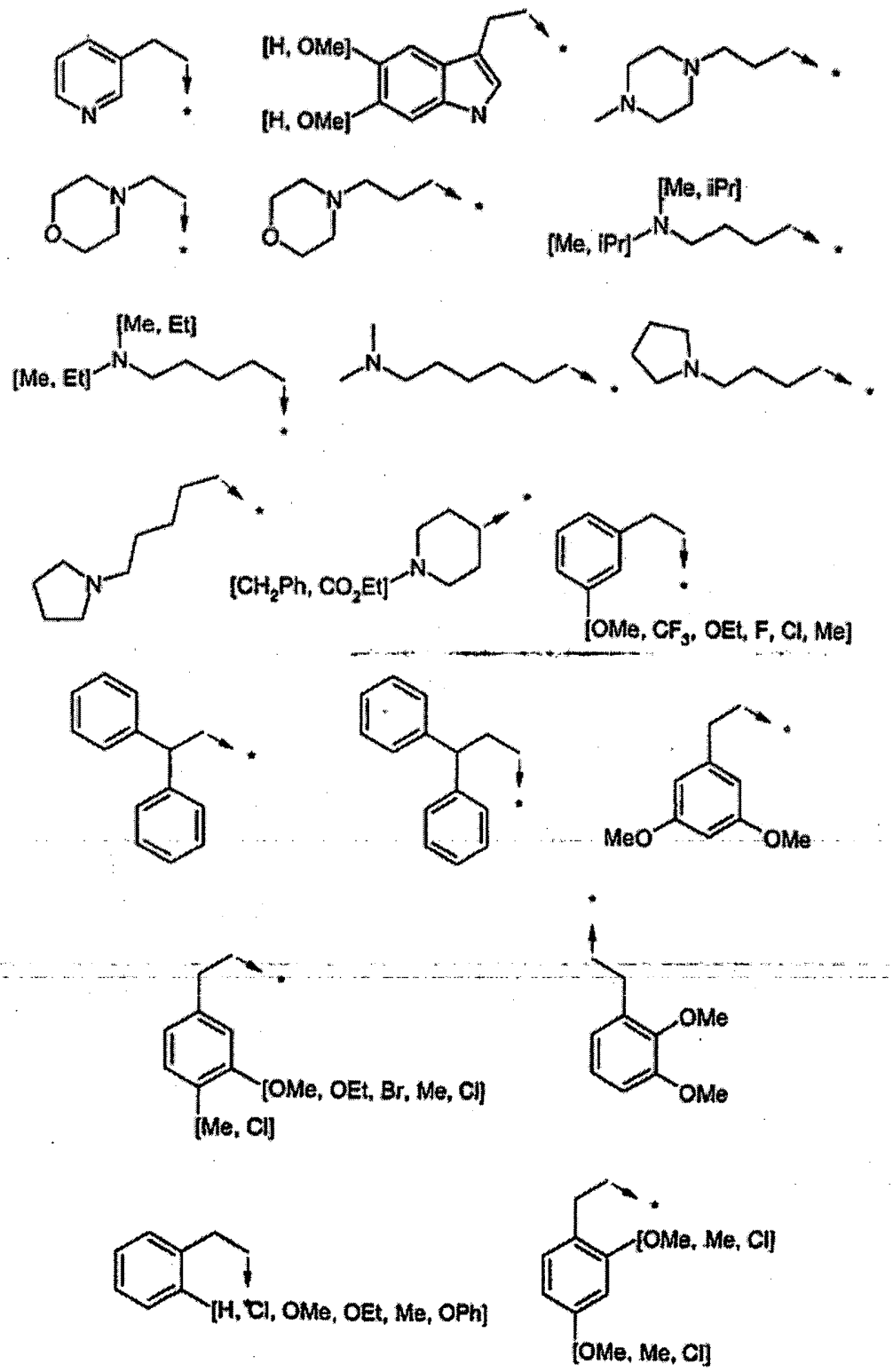

[Cl, Me, F, OMe]
[Cl, F, OMe, Me]

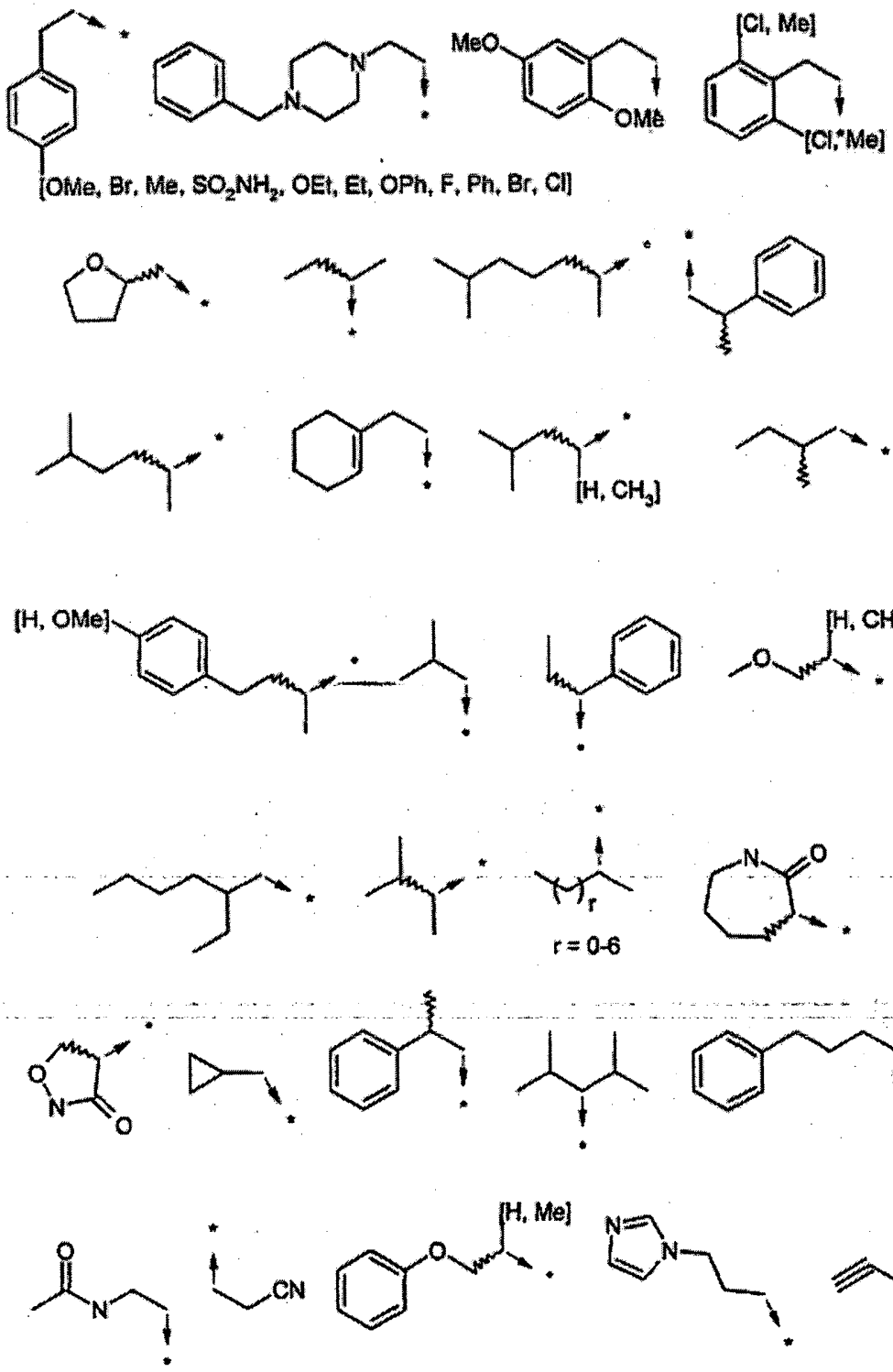

[F, Cl, CF3, Me, OMe]
[F, Cl, Me, OMe]


[F, Cl, Me, CF3, OMe, Me]
[F, Cl, Br, OMe, Me]

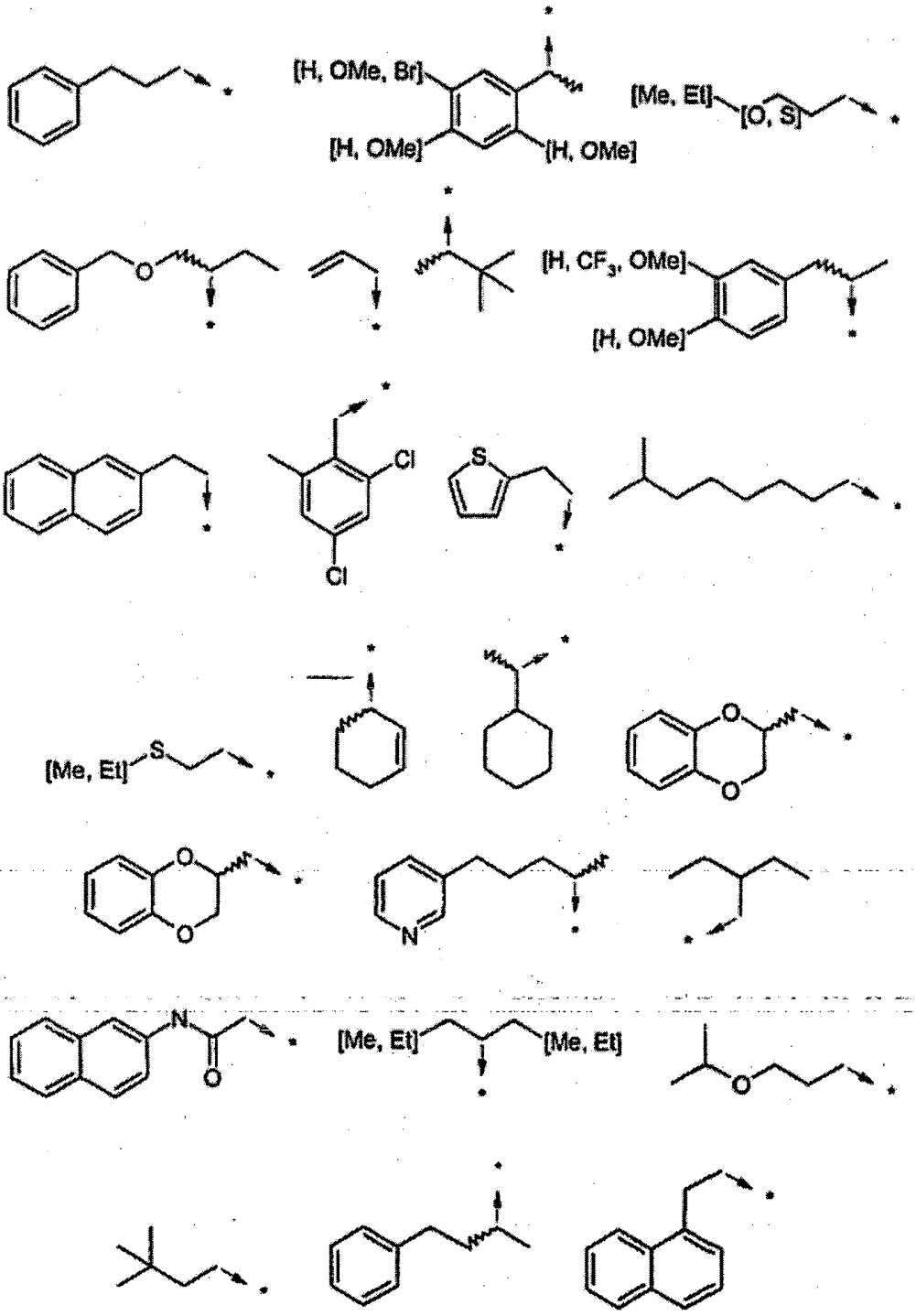

[Me, Cl, F, OMe]
[F, Cl, CF3, OMe, Me]


N
N
O
N
N


[H, OMe]
[H, OMe]
[Me, iPr]
[Me, iPr]
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[Me, Et]
[CH2Ph, CO2Et]
[OMe, CF3, OEt, F, Cl, Me]
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OMe
OMe
OMe
[OMe, OEt, Br, Me, Cl]
[Me, Cl]
[H, Cl, OMe, OEt, Me, OPh]
[OMe, Me, Cl]
[OMe, Me, Cl]


[OMe, Br, Me, SO2NH2, OEt, Et, OPh, F, Ph, Br, Cl]
MeO
OMe
[Cl, Me]
[Cl,*Me]
[H, CH3]
[H, OMe]
[H, CH3]
r = 0-6
[H, Me]
CN

23.01.04


[H, OMe, Br]
[H, OMe]
[H, OMe]
[Me, Et]
[O, S]
[H, CF3, OMe]
[H, OMe]
Cl
Cl
S
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O
O
O
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N
O
[Me, Et]
[Me, Et]
O

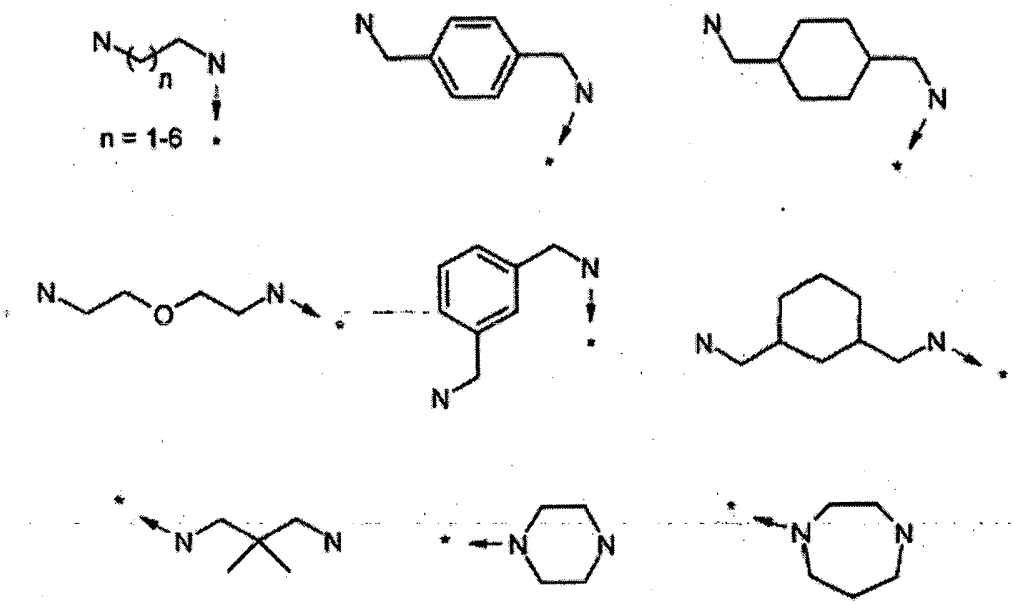
23.01.04

- Skupiny R2 již byly popsány ve způsobu A

- R3=-CO-R5

- R4=H

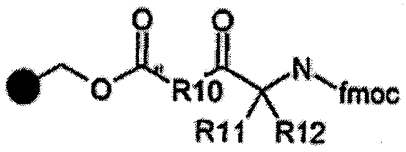
- Skupiny R5:



Způsob F

Příprava pryskyřic diaminů s jednou chráněnou skupinou funkcionalizovaných aminokyselinami chráněnými na straně N (Fmoc)

23.01.04

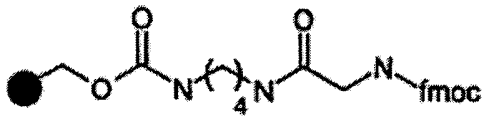


Obecný způsob: peptidová kopulace pryskyřice diaminů s jednou chráněnou skupinou s komerčně dostupnými N-Fmoc aminokyselinami (4 a 10 ekv.) (Bunin, B. The Combinatorial Index, Academic Press, 1998, str. 77-82) se provádí v DMF za teploty okolí po dobu 1 až 24 hodin s různými klasickými kopulačními činidly (4 až 10 ekv.) jako je dicyklohexylkarbodiimid (DCC), diisopropylkarbodiimid (DIC), směs DIC/N-hydroxybenzotriazol (HOBt), hexafluorfosforečnan benzotriazolyloxytris(dimethylamino)fosfonium (PyBOP), hexafluorfosforečnan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (HBTU) nebo tetrafluorboritan 2-(1H-benzotriazol-1-yl)-1,1,3,3-tetramethyluronia (TBTU). Pryskyřice se potom postupně promývá pomocí DMF a DCM. Posloupnost kopulace může být opakována (jednou až dvakrát), dokud Kaiserův ninhydrinový test není negativní.

Příprava 23

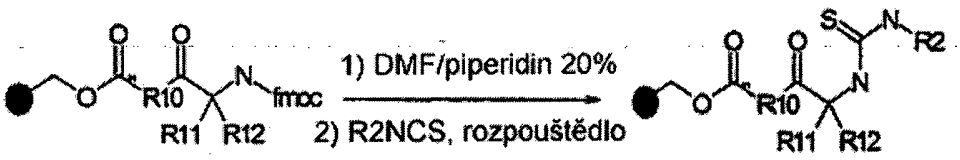
Wangova pryskyřice N-karbamátu 4-[({[(9H-fluoren-9-ylmethoxy)karbonyl]amino}acetyl)amino]butylu

23.01.04



Kyselina Fmoc-Gly-OH (2,36 g, 7,94 mmol) se aktivuje pomocí HOBt (1,07 g, 7,94 mmol) a DIC (1, 25 ml, 7, 94 mmol) v 22 ml DMF po dobu 5 minut před přidáním směsi do Wangovy pryskyřice N-karbamátu butylaminu (1 g, množství 0,794 mmol/g) předem nabobtnalé v 10 ml DMF. Po uplynutí 18 hodin míchání za teploty okolí se pryskyřice promývá postupně pomocí DMF (5 x 20 ml) a potom DCM (5 x 20 ml) před sušením za vakua. 1,27 g takto získané bledě žluté pryskyřice vykazuje negativní Kaiserův ninhydrinový test.

Příprava thiomočovinových pryskyřic

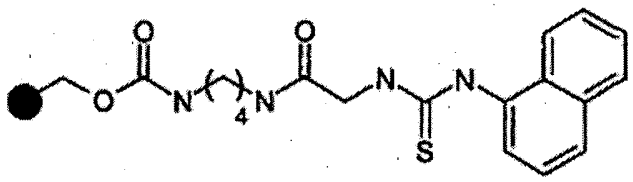


Obecný způsob: pryskyřice popsaná výše se zbaví ochrany pomocí směsi DMF/piperidin 20%. Po jedné hodině míchání za teploty okolí se pryskyřice filtruje a promývá postupně v DMF a potom v DCM. Sekvence deprotekce/promývání se opakuje po druhé a pryskyřice se suší za vakua. Pryskyřice se potom nabobtná v rozpouštědle jako je DMF nebo DCM a potom se přidá aromatický nebo heteroaromatický isothiokyanát (5 až 10 ekv.). Směs se míchá 2 až 24 hodin za teploty okolí a

potom se pryskyřice filtruje a promývá postupně pomocí DMF a potom DCM. Pryskyřice se potom suší za vakua a negativní Kaiserův ninhydrinový test potvrzuje, že reakce substituce je ukončena.

Příprava 24

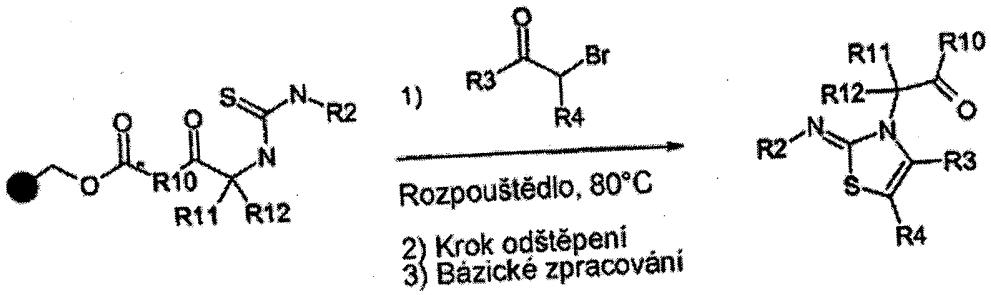
Wangova pryskyřice N-karbamátu 4-[({[(1-naftylamino) karbothioyl]amino}acetyl)amino]butylu



1,27 g výše uvedené pryskyřice (viz příprava 23) se zbaví ochrany pomocí 14 ml směsi DMF/piperidin 20%. Směs se míchá jednu hodina za teploty okolí. Pryskyřice se potom filtruje a potom promývá pomocí DMF (5 x 30 ml) a potom DCM (5 x 30 ml). Sekvence deprotekce/promývání se opakuje ještě jednou před sušením pryskyřice za vakua. Takto se získá 0,781 g bledě žluté pryskyřice s 0,758 mmol/g, vypočteno elementární analýzou síry. Do 0,3 g (0,22 mmol) této thiomočovinové pryskyřice se přidá 416 mg (2,2 mmol, 10 ekv.) 1-naftylisothiokyanátu, zředěného v 6 ml DMF. Směs se míchá 18 hodin za teploty okolí. Pryskyřice se filtruje a potom promývá postupně pomocí DMF (5 x 20 ml) a potom DCM (5 x 20 ml). Takto se získá po sušení za vakua 310 mg bledě

žluté pryskyřice s 0,66 mmol/g, vypočteno elementární analýzou dusíku.

Syntéza 2-arylimino-2,3-dihydrothiazolů

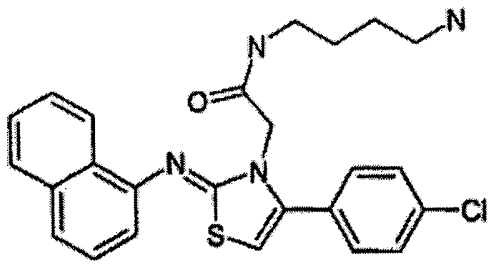


Obecný způsob: krok regioselektivní cyklizace se provádí v aprotických rozpouštědlech jako je dioxan, DMF nebo N-methylpyrrolidinon za teploty 80 °C po dobu 2 až 3 hodin mezi thiomočovinovou pryskyřicí a α-bromketonem (2 a 5 ekv.). Pryskyřice se potom promývá postupně pomocí DMF, methanolem a DCM a potom se suší za sníženého tlaku. Pryskyřice 2-arylimino-2,3-dihydrothiazolu se štěpí v kyselých podmínkách (DCM/kyselina trifluoroctová 50%) po dobu 1 až 2 hodin a potom se promývá pomocí DCM. Rozpouštědlo se odpaří a volná báze se izoluje po zpracování v bázických podmínkách (roztok nasycený hydrogenuhličitanem sodným) s následnou extrakcí pomocí DCM nebo vymývání pomocí methanolu v koloně oxidu hlinitého (500 mg, Interchim).

Příklad 6

N-(4-aminobutyl)-2-((2Z)-4-(4-chlorfenyl)-2-(1-naftylimino)-1,3-thiazol-3(2H)-yl)acetamid

($C_{25}H_{25}ClN_4OS$, molekulová hmotnost = 465,02):



80 mg (52,8 μmol, 0,66 mmol/g) thiomočovinové pryskyřice (příprava 24) a 25,1 mg (105,6 mmol, 2 ekv.) 2-brom-4'-chloracetofenonu se zředí v 1 ml DMF. Směs se zahřívá na teplotu 80 °C po dobu 2 hodin. Pryskyřice se filtruje a potom promývá pomocí DMF (5 x 1 ml), methanolem (5 x 1 ml) a potom DCM (5 x 1 ml) před sušením za vakua. Přidá se 1 ml směsi DCM/TFA 50% a míchá se po dobu 1,5 hodin. Pryskyřice se filtruje a proplachuje pomocí DCM. Filtrát se odpaří a potom se znovu zředí methanolem pro vymývání na bázickém oxidu hlinitém. Takto se po odpaření získá 20,6 mg (výtěžek de 84%; čistota UV 94,2 % stanovena na vlnové délce 220 nm) žluté pevné látky odpovídající volné bázi.

^{1}H NMR (DMSO D6,100 MHz, δ): 8,36 (t, 1H, J = 4,7 Hz, NH); 8,12 (dd, 1H, J = 2,1 a 7,3 Hz); 7,87 (dd, 1H, J = 2,7 a 6,3 Hz); 7,63-7, 34 (m, 8H); 7,13 (dd, 1H, J = 1,6 a 6,7

Hz); 6,33 (s, 1H, H azol); 4,44 (široký s, 2H); 3,14 (m, 2H); 2,7 (m, 2H); 1,5 (m, 4H).

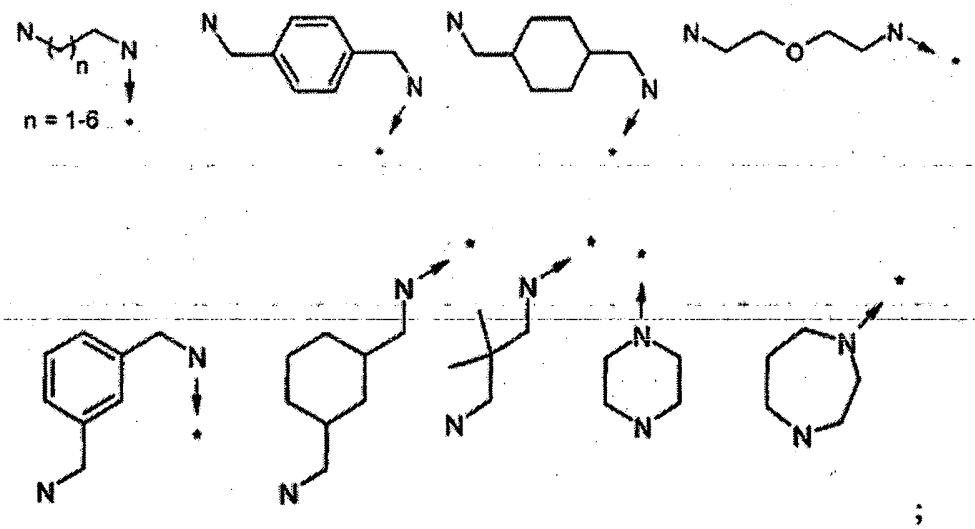
SM/CL: m/z = 465,21 (M+H)+.

Série 2-arylimino-2,3-dihydrothiazolů byla syntetizována způsobem F, využívajíce robotizovaný systém (ACT MOS 496):

- R1= -C (R11R12)-CO-R10

- Skupiny R2, R3 a R4 již byly popsány ve způsobu A

- Skupiny R10:

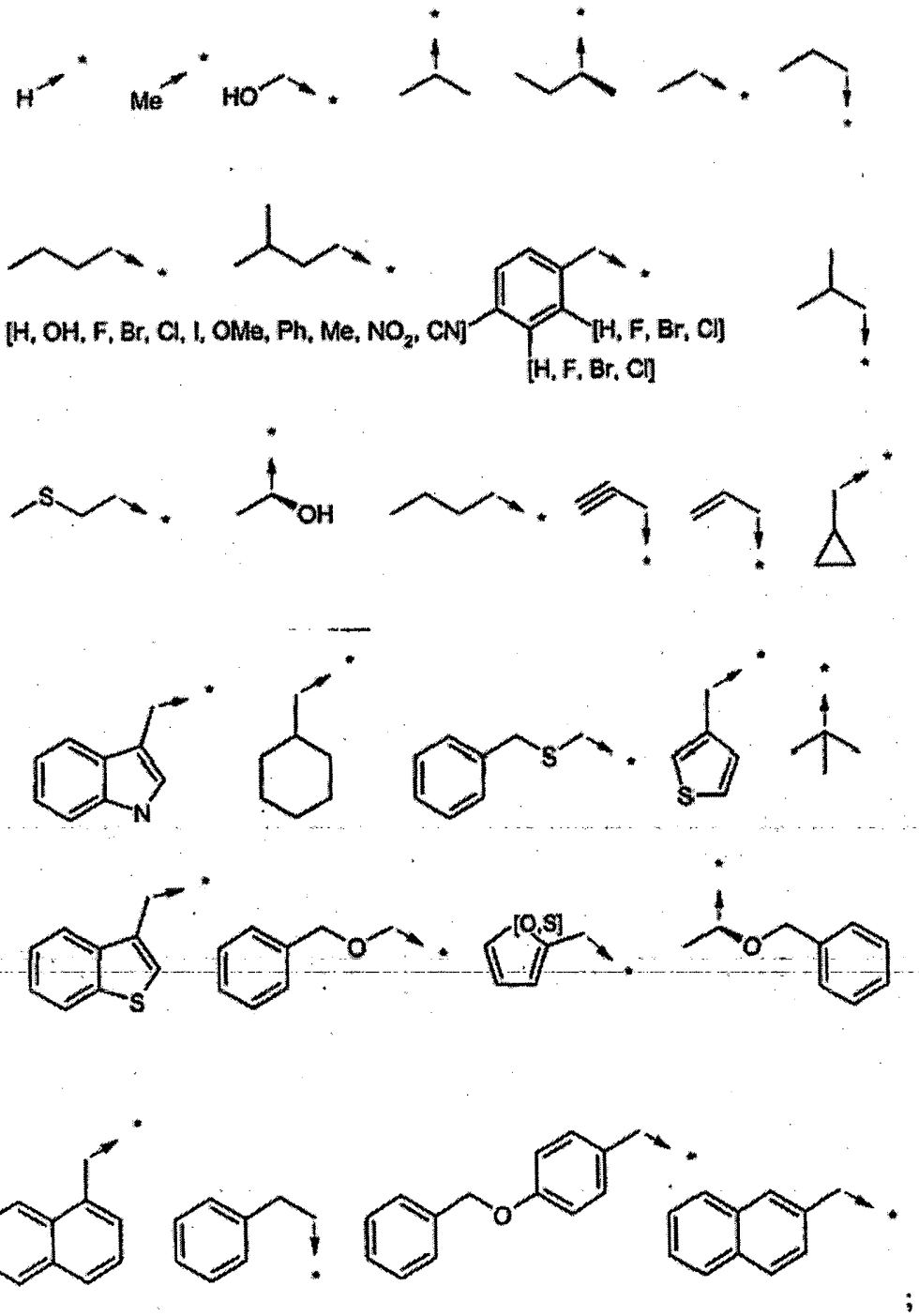


;

- R11=H

- Skupiny R12:

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Příklady

V následující části předložené přihlášky vynálezu jsou v tabulkách uvedeny příklady sloučenin, získaných způsoby A, B, C, D, E a F popsanými výše. Tyto příklady jsou uvedeny pro ilustraci výše uvedených způsobů a v žádném případě nemohou být považovány za omezení rozsahu předmětu předloženého vynálezu.

Získané sloučeniny byly charakterizovány jejich retenční dobou (Ret.) a hmotnostní spektrometrií $(M+H)^+$.

Chromatogramy se získají použitím přístroje pro kapalinovou vysokovýkonnou chromatografii (Hewlett-Packard 1100), vybaveného detektorem UV. Pro měření retenční doby při kapalinové vysokovýkonné chromatografii byly použity následující podmínky, používajíce u každého z chromatogramů vlnovou délku 220 nm:

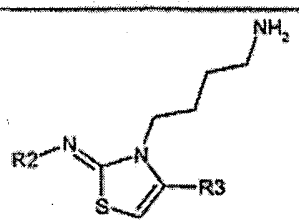
t (min.)	A (%)	B (%)
0	90	10
6	15	85
8	15	85

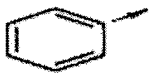
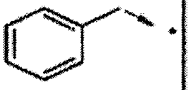
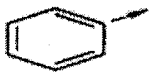
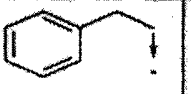
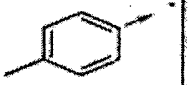
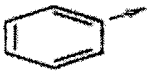
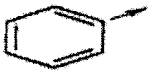
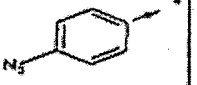
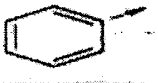
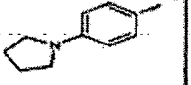
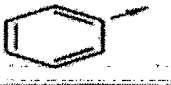
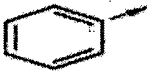
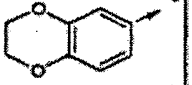
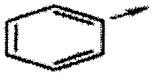
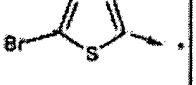
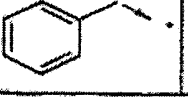
Vymývací rozpouštědlo A: voda + 0,02% d'kyselina trifluoroctová; vymývací rozpouštědlo B: acetonitril.

Průtok: 1 ml/min; injektovaný objem: 5 µl; teplota: 40 °C. Kolona Uptisphere 3 µm ODS, vnitřní průměr 50 x 4,6 mm (vnitřní průměr) (Interchim)

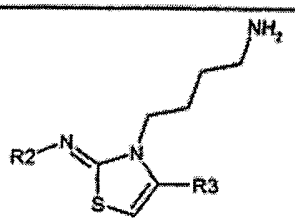
Hmotnostní spektra se získají jednoduchým čtyřpólovým spektrometrem vybaveným elektrosprejovým zdrojem (Micromass, Platform II).

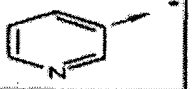
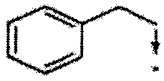
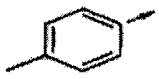
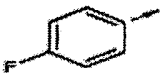
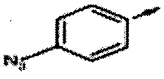
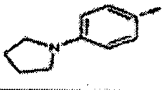
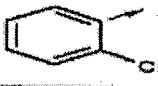
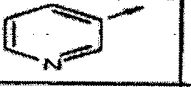
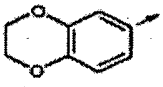
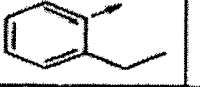
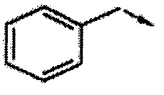
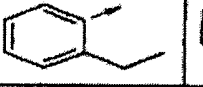
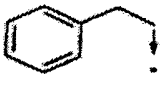
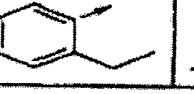
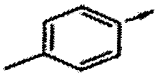
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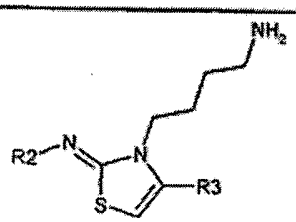
Př.	R2	R3	Čistota(%)	tr (min)	[M+H]+
7			91,2	3,09	304,2
8			93,1	3,38	338,2
9			94	3,56	352,2
10			93,3	3,42	338,2
11			96,6	3,25	342,2
12			96,4	3,46	365,2
13			91,9	3,86	393,2
14			96,4	3,44	358,2
15			95,6	3,34	382,2
16			94,5	3,7	408
17			54,43	2,9	305,2
18			50,4	3,14	339,2

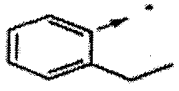
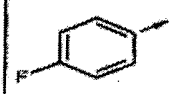
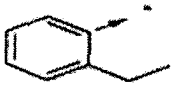
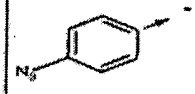
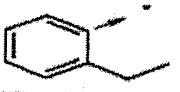
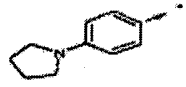
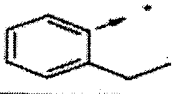
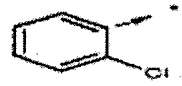
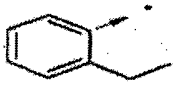
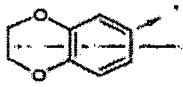
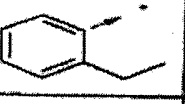
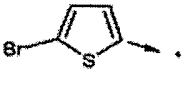
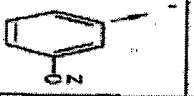
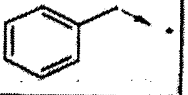
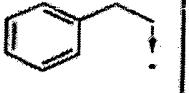
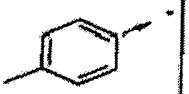
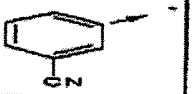
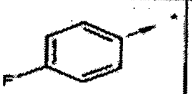
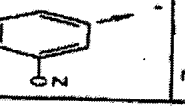
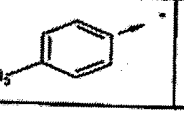
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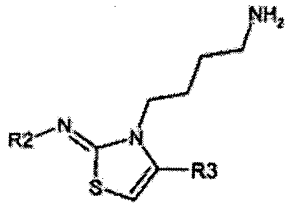
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
19			48,9	3,38	535,2
20			39,3	3,26	339,2
21			49,5	3,06	343,2
22			42,3	3,29	366,2
23			43,4	3,7	394,3
24			56,7	3,16	359,2
25			45,3	3,09	383,2
26			45,7	3,3	409
27			96,8	3,41	332,3
28			92,8	3,7	366,3
29			90,6	3,84	380,3
30			93,7	3,76	366,3

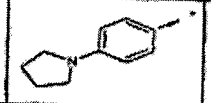
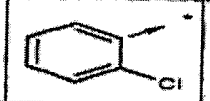
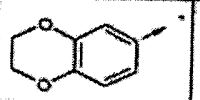
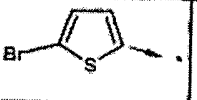
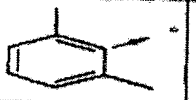
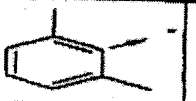
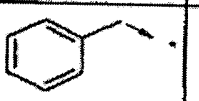
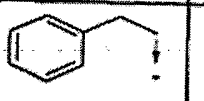
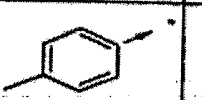
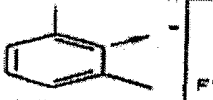
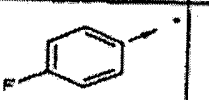
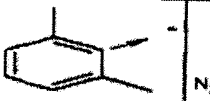
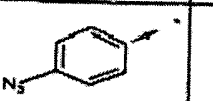
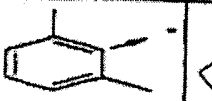
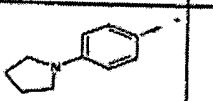
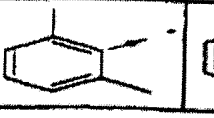
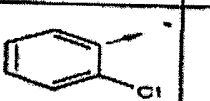
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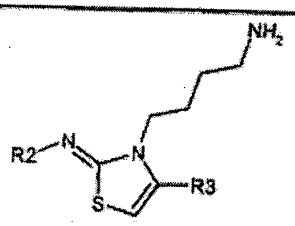
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
31			94,4	3,63	370,2
32			89,1	3,82	393,2
33			90,1	4,12	410,2
34			96,7	3,83	386,2
35			95,8	3,67	410,2
36			93,4	4,17	436,1
37			88,4	3,64	329,25
38			91,8	4,03	363,2
39			88,6	4,15	377,2
40			94,1	4,22	363,2
41			95,2	4,1	376,2
42			92,8	4,35	390,2

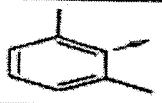
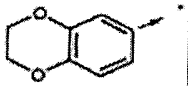
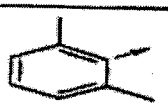
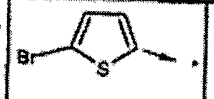
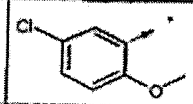
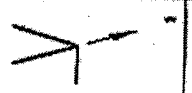
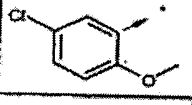
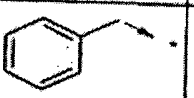
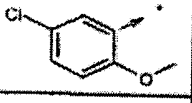
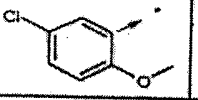
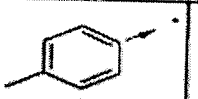
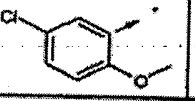
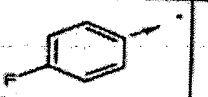
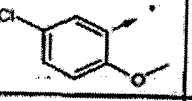
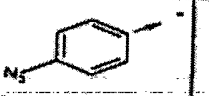
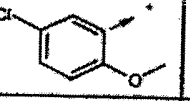
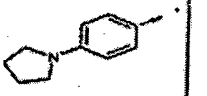
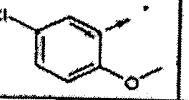
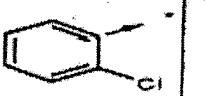
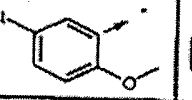
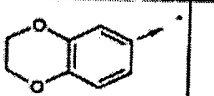
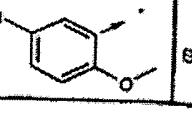
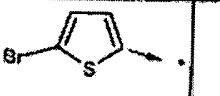
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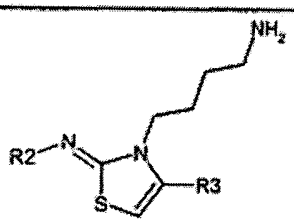
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
43			94,1	4,54	418,2
44			95	4,34	383,1
45			95,1	4,06	407,2
46			93	4,7	433,1
47			96,4	3,32	332,3
48			92,9	3,62	366,3
49			95,6	3,76	380,3
50			95,6	3,64	366,33
51			96	3,51	370,2
52			87	3,69	390,2
53			80,9	4,04	421,3
54			97,1	3,7	436,1

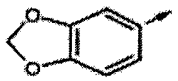
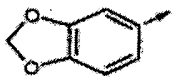
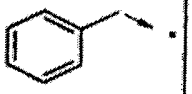
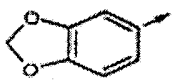
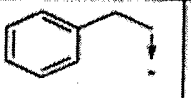
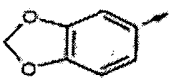
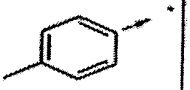
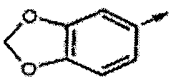
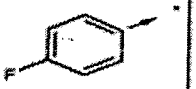
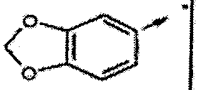
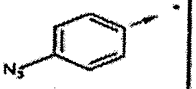
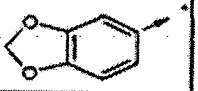
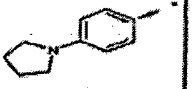
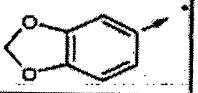
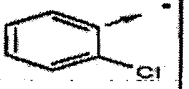
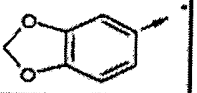
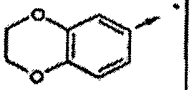
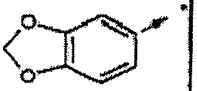
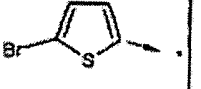
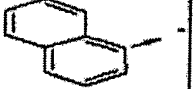
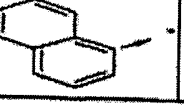
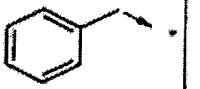
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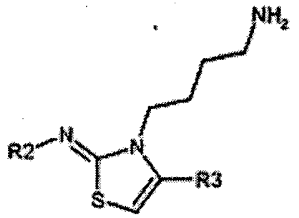
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
55			94,6	3,59	410,2
56			95,6	3,92	436,1
57			82,1	3,66	368,2
58			90,7	3,94	402,2
59			85,5	4,06	416,2
60			94,4	4,09	402,2
61			95,1	3,99	406,2
62			93,6	4,21	429,2
63			93,6	4,39	457,2
64			96	4,22	422,1
65			91,6	3,96	446,2
66			94,5	4,65	472

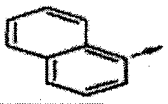
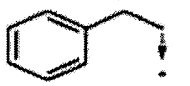
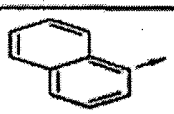
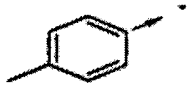
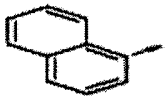
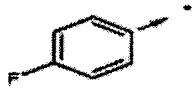
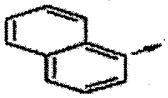
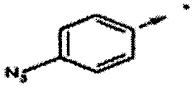
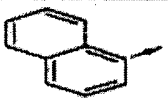
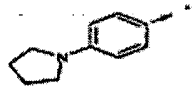
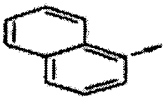
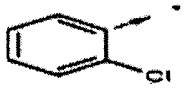
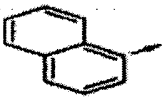
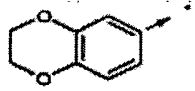
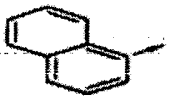
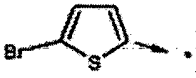
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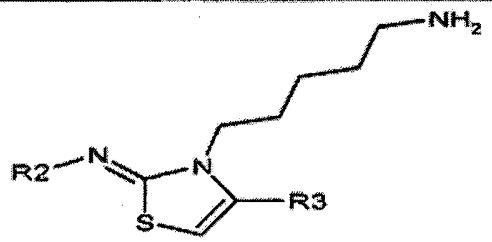
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
67			97	3,07	348,2
68			93,6	3,36	382,2
69			93,4	3,54	396,2
70			94,7	3,41	382,1
71			96,3	3,24	386,2
72			94,5	3,44	409,1
73			93,4	3,63	437,2
74			95,4	3,41	402,1
75			95,7	3,32	426,2
76			92,4	3,64	452,2
77			98,1	3,66	324,2
78			91,2	3,98	388,2

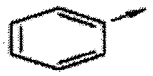
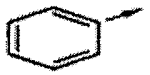
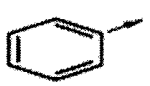
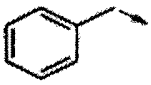
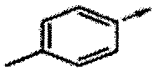
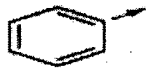
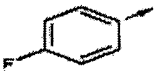
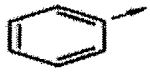
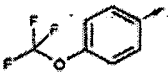
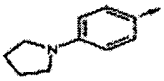
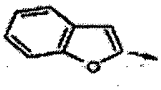
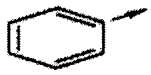
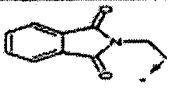
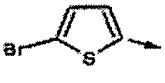
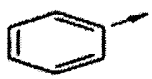
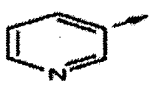
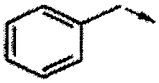
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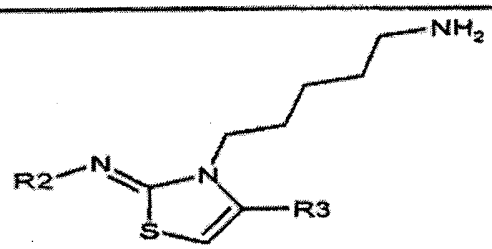
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
79			81,9	4,09	402,2
80			96,1	4,12	388,2
81			96,1	4,03	392,2
82			94,2	4,24	415,2
83			93,3	4,39	443,3
84			96,3	4,28	408,1
85			94,2	4,0	432,2
86			95,6	4,7	458,1

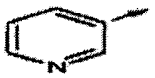
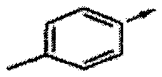
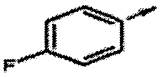
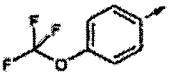
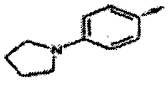
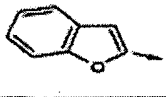
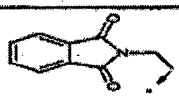
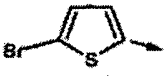
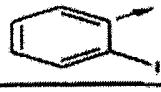
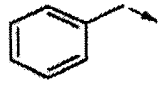
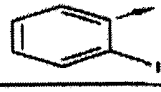
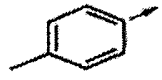
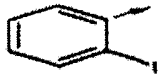
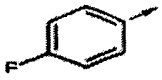
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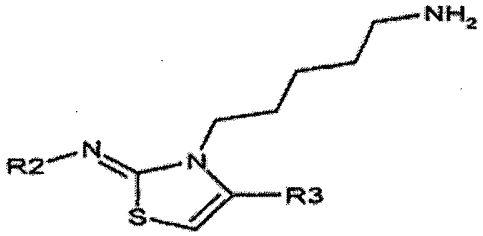
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
87			97	3,35	338,2
88			94	3,51	352,3
89			94	3,58	352,3
90			97	3,42	356,2
91			86	4,01	422,2
92			96	3,99	407,3
93			7	3,65	391,3
94			92	4,11	378,2
95			95	3,43	435,2
96			97	3,91	422,1
97			43	3,19	339,2
98			32	3,33	353,2

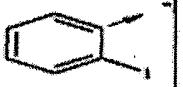
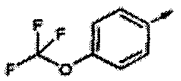
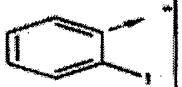
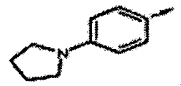
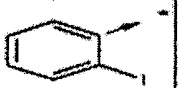
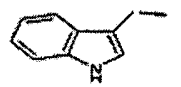
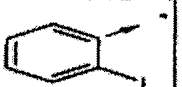
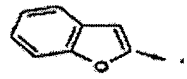
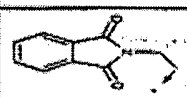
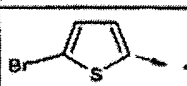
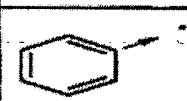
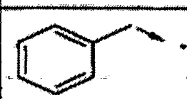
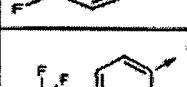
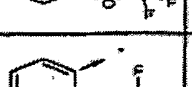
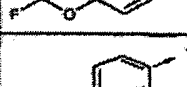
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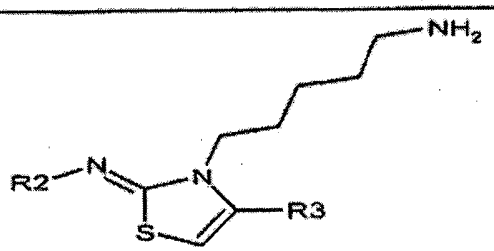
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
99			39	3,45	353,2
100			39	3,28	357,2
101			42	3,8	423,2
102			41	3,89	408,2
103			14	3,43	392,2
104			39	3,62	379,2
105			28	3,2	436,2
106			35	3,56	423,1
107			95	4,65	464,1
108			89	4,64	478,2
109			82	4,88	478,1
110			92	4,76	482,1

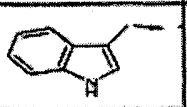
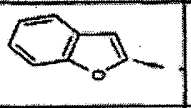
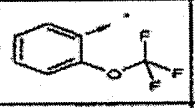
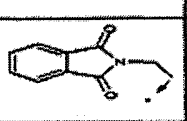
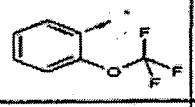
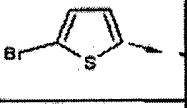
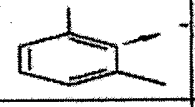
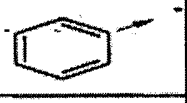
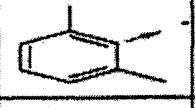
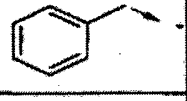
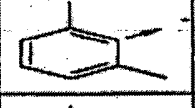
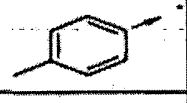
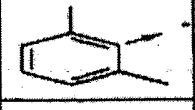
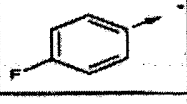
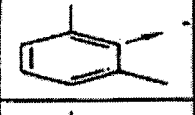
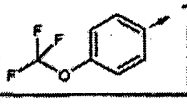
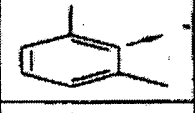
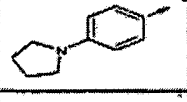
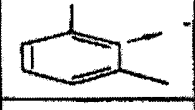
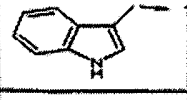
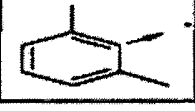
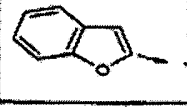
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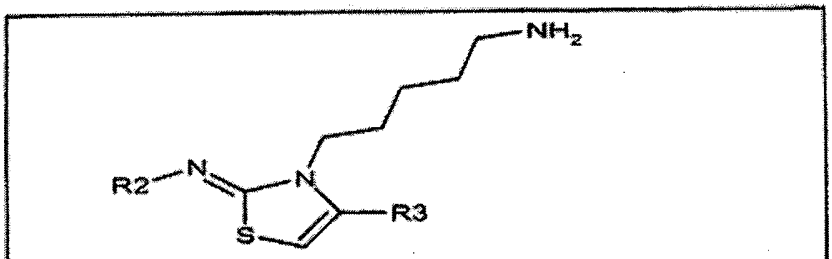
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
111			90	5,41	548,1
112			86	5,13	533,2
113			9	4,5	517,1
114			95	5,49	504,1
115			80	4,4	561,1
116			89	5,4	548,0
117			96	4,85	422,2
118			91	4,86	436,2
119			88	5,08	436,2
120			95	4,96	440,2
121			81	5,56	506,2
122			83	5,34	491,2

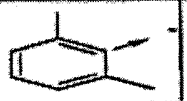
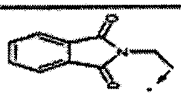
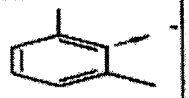
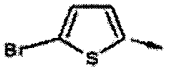
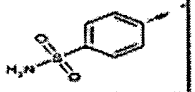
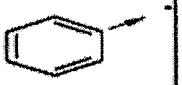
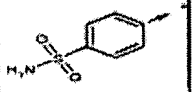
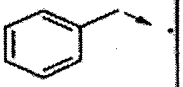
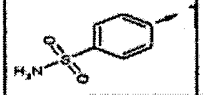
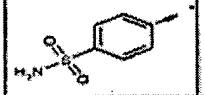
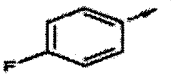
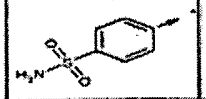
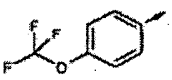
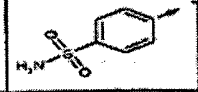
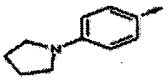
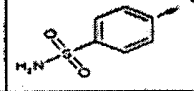
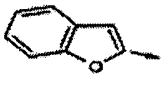
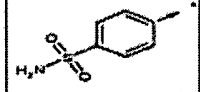
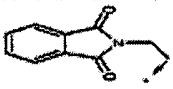
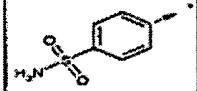
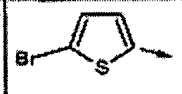
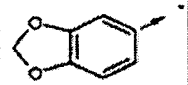
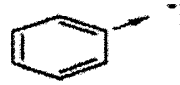
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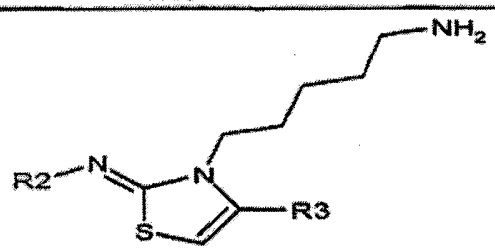
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
123			3	4,7	475,3
124			91	5,59	462,2
125			92	4,61	519,2
126			92	5,52	506,1
127			98	3,63	366,3
128			97	3,76	380,3
129			98	3,82	380,3
130			98	3,67	384,2
131			97	4,16	450,2
132			96	4,2	435,3
133			21	3,9	419,3
134			88	4,28	406,2

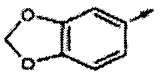
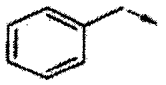
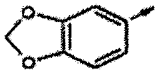
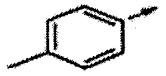
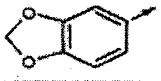
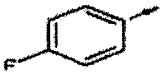
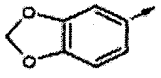
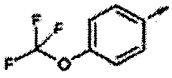
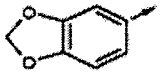
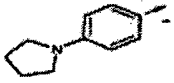
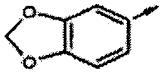
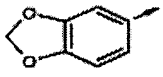
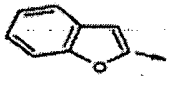
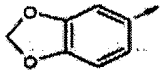
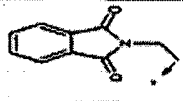
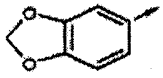
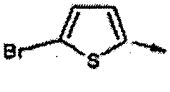
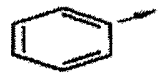
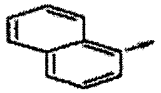
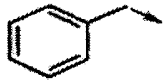
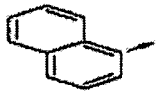
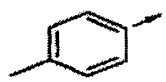
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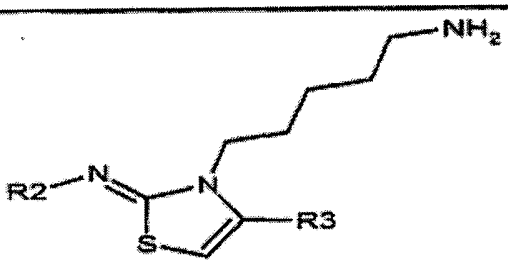
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
135			97	3,68	463,3
136			82	4,09	450,1
137			93	3,44	417,2
138			94	3,5	431,2
139			95	3,71	431,2
140			95	3,58	435,2
141			94	4,27	501,2
142			93	4,05	486,6
143			94	4,28	457,2
144			92	3,39	514,2
145			85	4,16	501,1
146			97	3,36	382,2

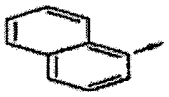
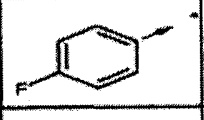
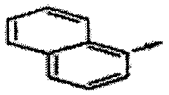
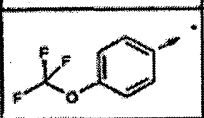
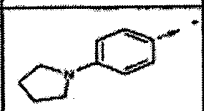
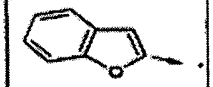
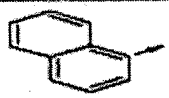
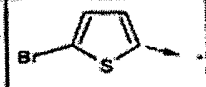
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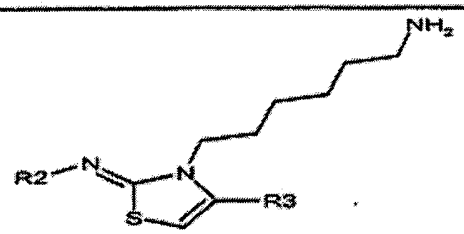
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
147			94	3,53	396,2
148			97	3,6	396,2
149			97	3,43	400,2
150			97	3,95	466,2
151			95	4,01	451,3
152			15	3,57	435,2
153			94	4,0	422,2
154			95	3,45	479,3
155			95	3,84	466,1
156			96	4,11	388,2
157			90	4,14	402,2
158			96	4,31	402,2

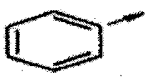
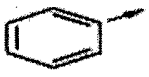
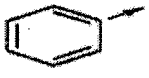
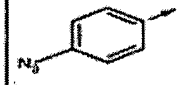
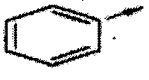
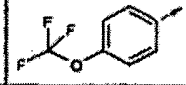
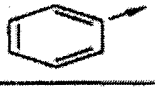
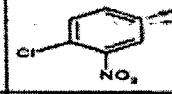
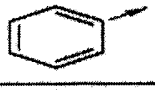
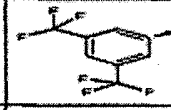
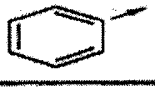
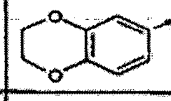
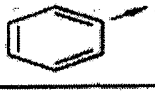
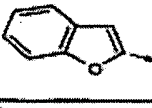
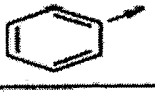
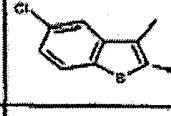
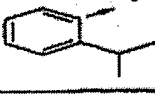
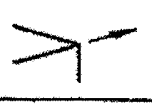
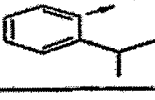
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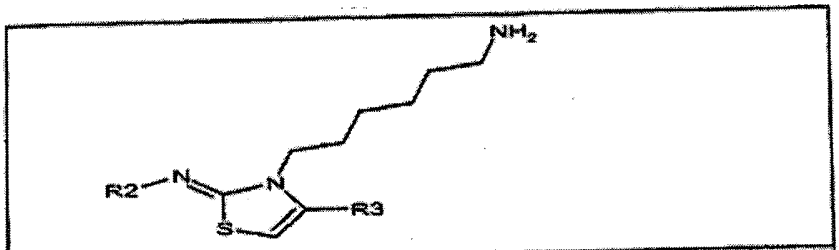
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
159			96	4,21	406,2
160			97	4,83	472,3
161			95	4,57	457,3
162			96	5,12	428,2
163			88	4,01	485,3
164			97	4,91	472,1

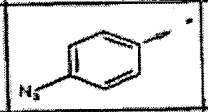
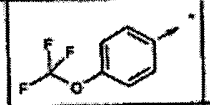
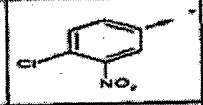
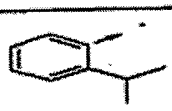
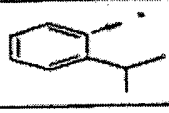
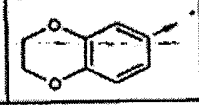
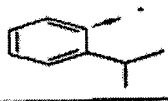
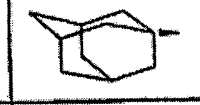
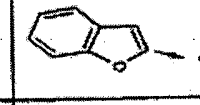
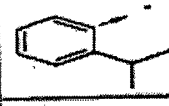
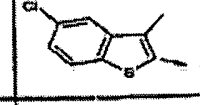
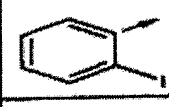
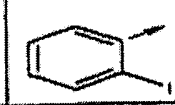
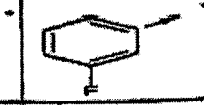
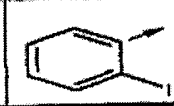
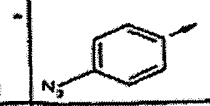
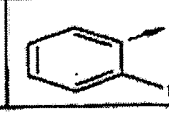
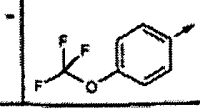
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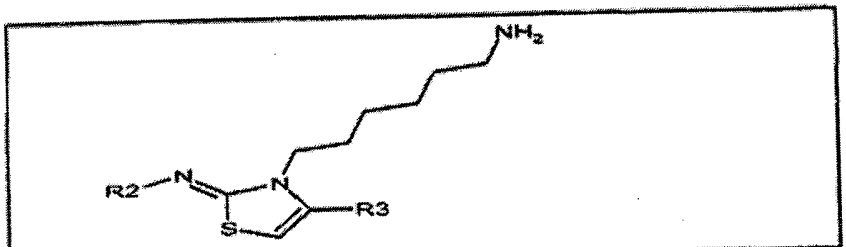
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
165			93	3,52	332,3
166			99	3,76	370,3
167			97	3,9	393,3
168			98	4,25	436,2
169			98	4,14	431,2
170			99	4,79	488,2
171			98	3,74	410,2
172			98	4,28	410,3
173			98	4,38	392,2
174			98	4,73	456,2
175			98	4,06	374,3
176			98	4,37	412,3

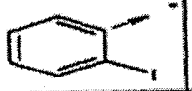
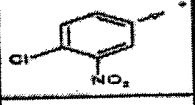
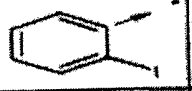
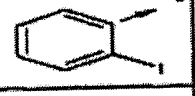
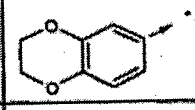
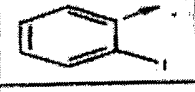
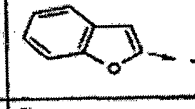
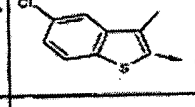
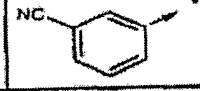
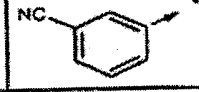
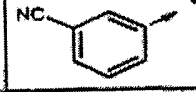
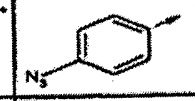
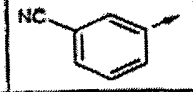
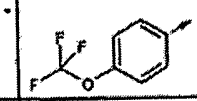
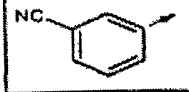
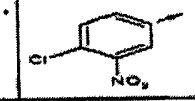
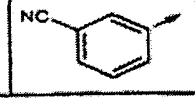
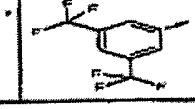
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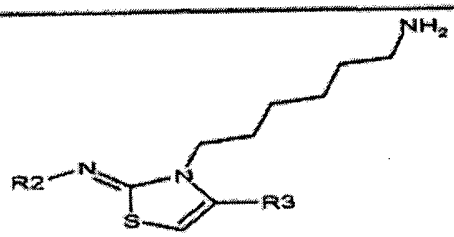
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
177			97	4,46	435,3
178			98	4,8	478,3
179			99	4,78	473,3
180			94	5,43	530,3
181			97	4,27	452,3
182			85	4,73	452,4
183			98	5,07	434,3
184			93	5,33	498,3
185			98	4,61	458,2
186			97	5,23	496,1
187			96	5,34	519,1
188			97	5,72	562,1

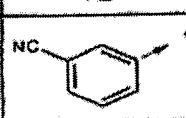
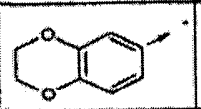
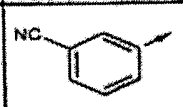
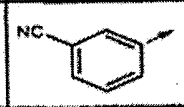
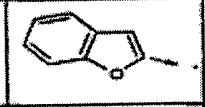
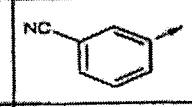
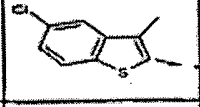
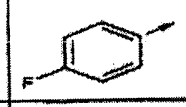
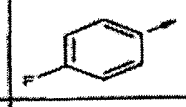
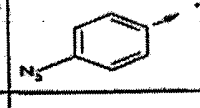
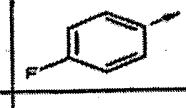
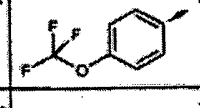
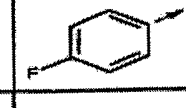
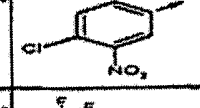
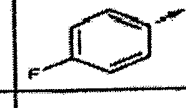
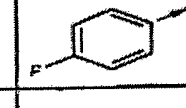
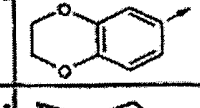
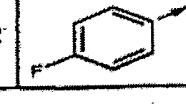
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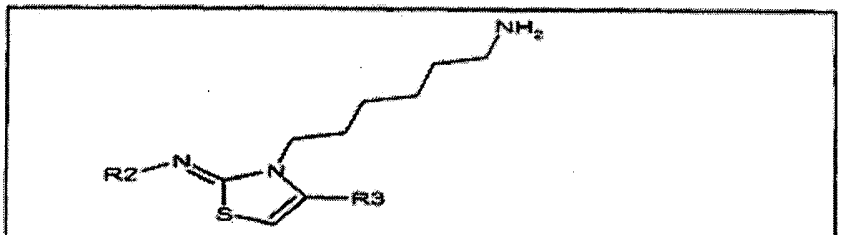
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
189			98	5,57	557,1
190			96	6,16	614,1
191			96	4,97	536,1
192			85	5,67	536,2
193			96	5,86	518,1
194			97	6,32	582,1
195			96	4,16	357,3
196			98	4,74	395,2
197			97	4,86	418,2
198			98	5,26	461,2
199			98	5,12	456,2
200			97	5,72	513,2

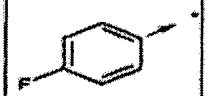
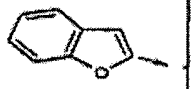
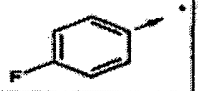
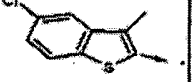
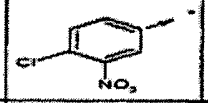
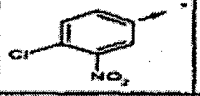
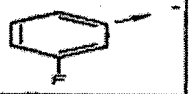
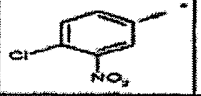
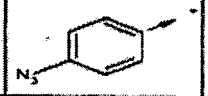
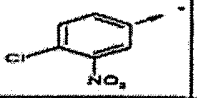
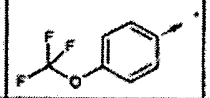
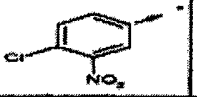
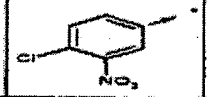
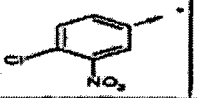
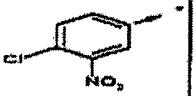
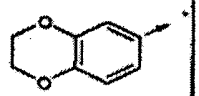
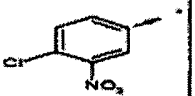
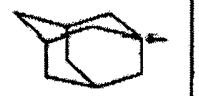
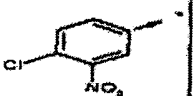
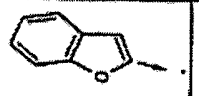
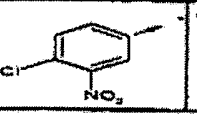
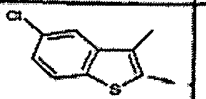
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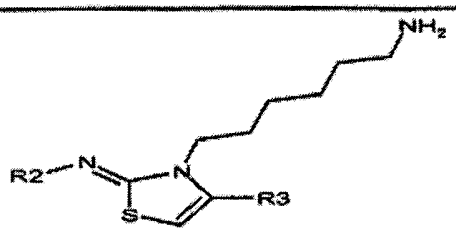
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
201			96	4,51	435,2
202			98	5,18	435,3
203			95	5,37	417,2
204			95	5,84	481,2
205			96	3,63	350,3
206			98	3,95	388,2
207			95	4,07	411,2
208			98	4,44	454,2
209			97	4,38	449,2
210			89	5,03	506,2
211			96	3,87	428,2
212			97	4,4	428,3

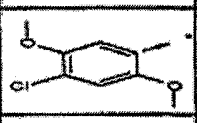
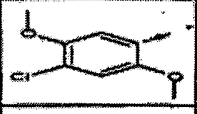
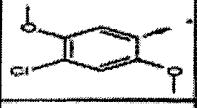
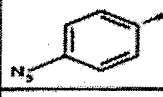
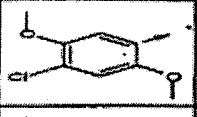
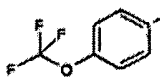
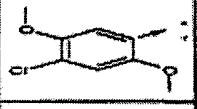
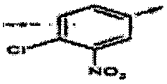
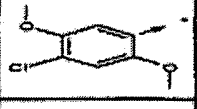
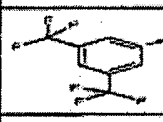
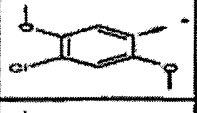
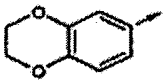
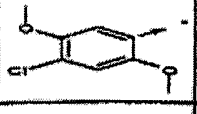
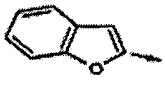
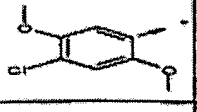
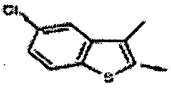
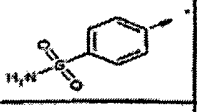
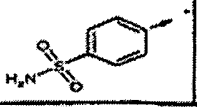
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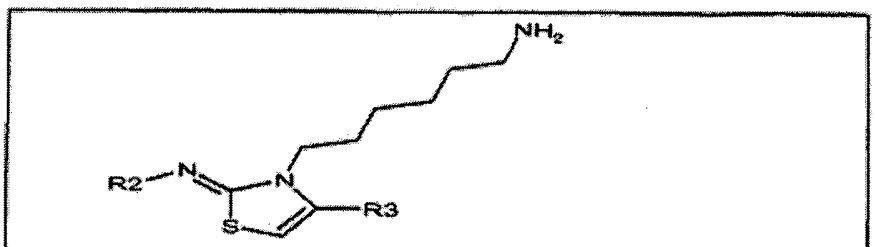
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
213			96	4,63	410,2
214			96	4,96	474,2
215			94	5,38	411,2
216			98	5,63	449,2
217			96	5,77	472,2
218			98	6,04	515,2
219			98	5,74	510,1
220			91	6,29	567,2
221			98	5,53	489,2
222			96	6,38	489,3
223			97	6,0	471,2
224			98	6,49	535,1

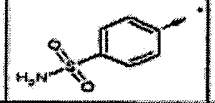
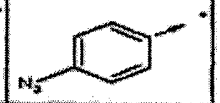
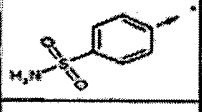
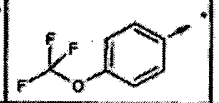
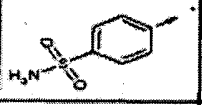
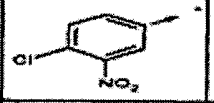
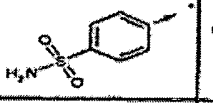
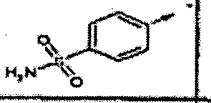
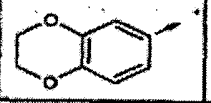
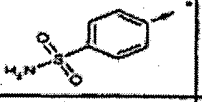
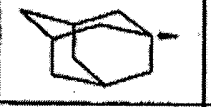
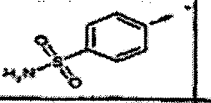
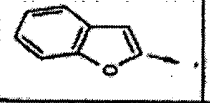
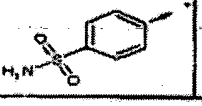
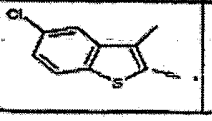
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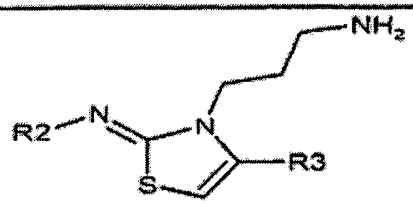
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
225			98	3,99	426,3
226			98	4,34	464,2
227			96	4,43	487,3
228			97	4,78	530,2
229			98	4,76	525,2
230			96	5,36	582,2
231			95	4,23	504,3
232			97	4,7	504,3
233			98	4,99	486,2
234			97	5,3	550,2
235			96	3,44	411,2
236			95	3,94	449,2

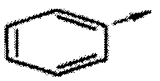
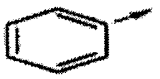
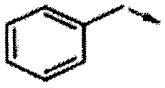
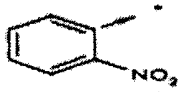
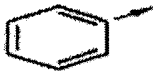
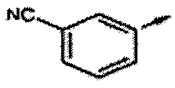
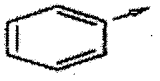
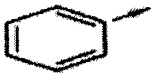
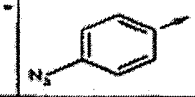
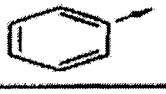
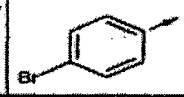
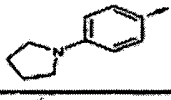
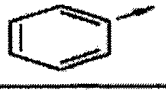
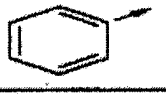
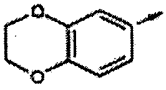
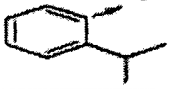
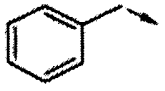
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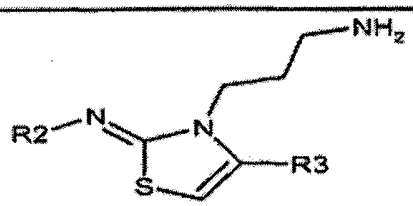
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
237			96	4,11	472,3
238			95	4,52	515,2
239			95	4,39	510,2
240			94	5,01	567,2
241			96	3,74	489,2
242			96	4,41	489,3
243			96	4,56	471,2
244			97	5,01	535,2

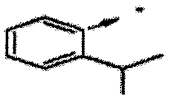
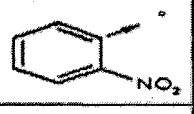
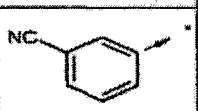
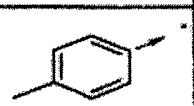
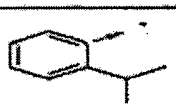
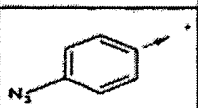
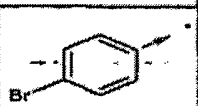
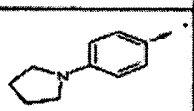
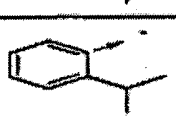
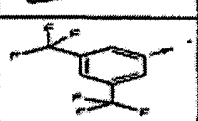
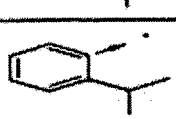
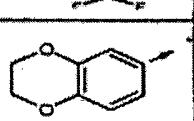
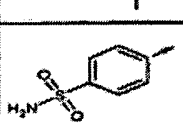
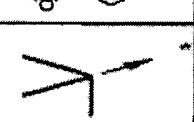
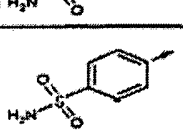
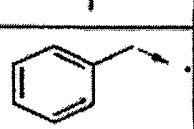
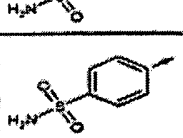
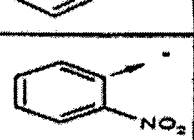
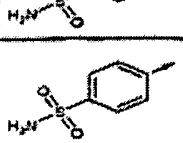
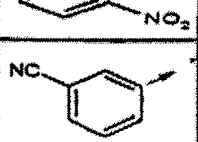
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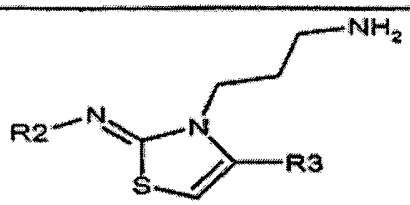
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
245			98,1	3,2	290,2
246			96,9	3,78	324,2
247			69,3	3,88	355,2
248			99,3	3,79	335,2
249			99,4	3,86	324,2
250			98	3,97	351,2
251			98,7	4,14	388,1
252			93,5	4,24	379,3
253			82,4	5,16	446,2
254			98,8	3,7	368,2
255			98,5	3,9	332,3
256			92,3	4,4	366,3

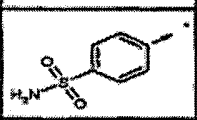
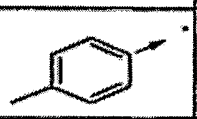
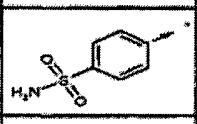
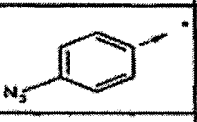
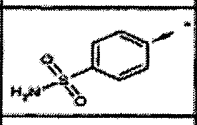
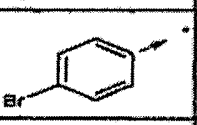
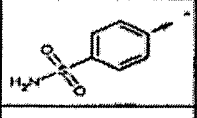
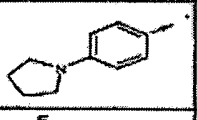
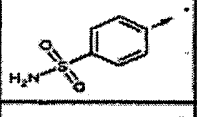
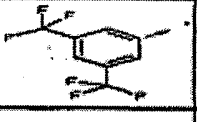
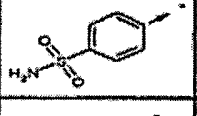
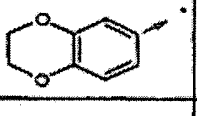
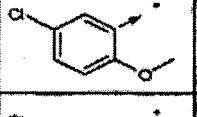
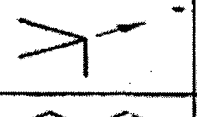
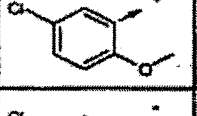
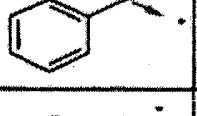
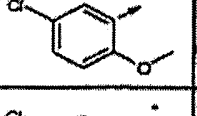
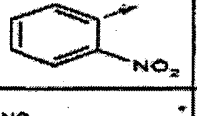
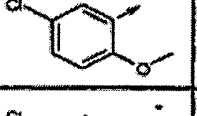
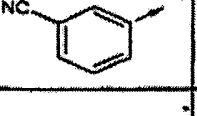
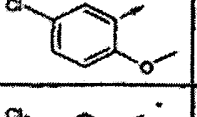
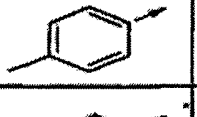
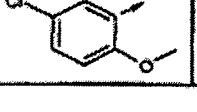
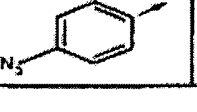
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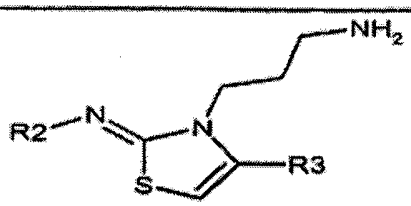
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
257			82,3	4,55	397,2
258			98,4	4,48	377,3
259			97,3	4,49	366,3
260			95,4	4,59	393,3
261			98,7	4,77	430,2
262			90,9	4,76	421,3
263			98,7	5,72	488,2
264			97,7	4,33	410,3
265			98,5	3,42	369,2
266			94,9	3,91	403,2
267			98,1	3,81	434,2
268			97,9	3,78	414,1

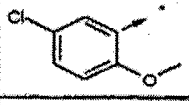
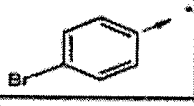
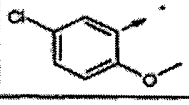
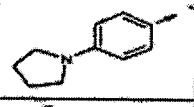
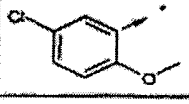
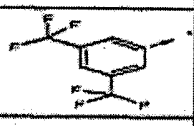
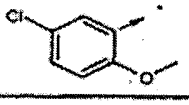
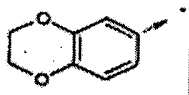
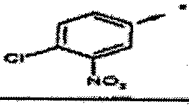
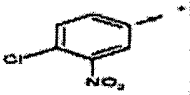
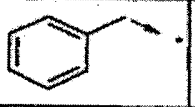
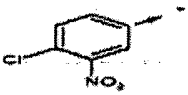
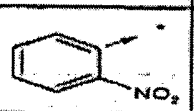
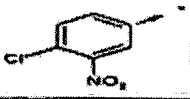
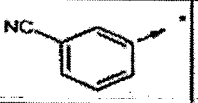
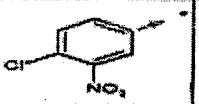
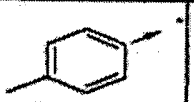
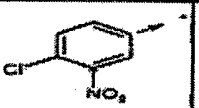
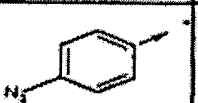
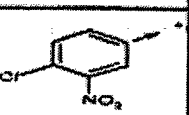
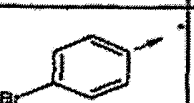
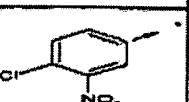
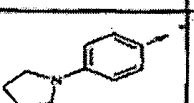
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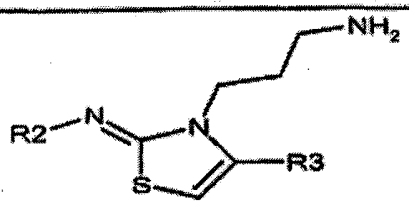


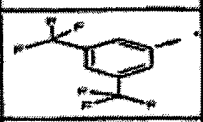
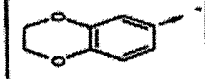
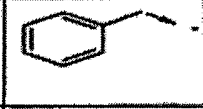
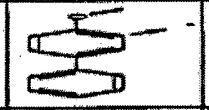
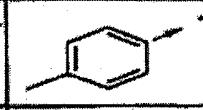
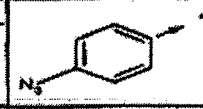
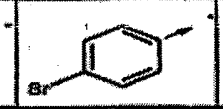
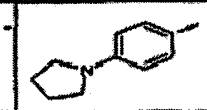
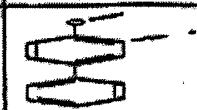
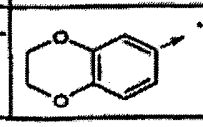
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
269			98,1	4,06	403,2
270			96,2	4,14	430,2
271			98,3	4,28	467,1
272			96,8	4,5	458,2
273			98,3	4,92	525,2
274			97,1	3,84	447,2
275			96,5	4,28	354,2
276			93,3	5,02	388,2
277			68,7	4,96	419,2
278			97,8	4,86	399,2
279			96	5,13	388,2
280			96,9	5,18	415,2

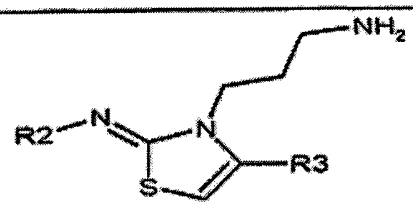
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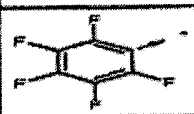
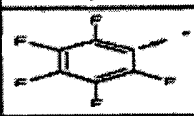
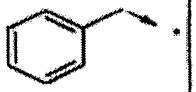
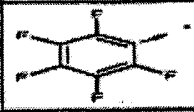
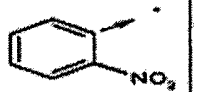
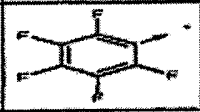
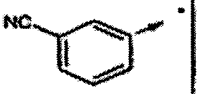
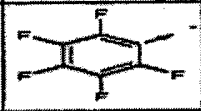
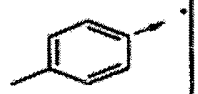
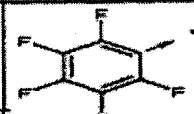
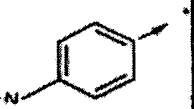
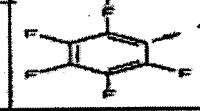
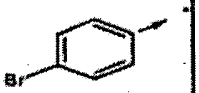
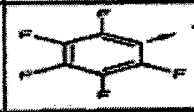
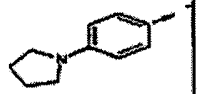
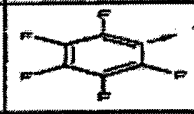
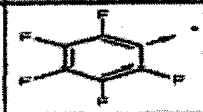
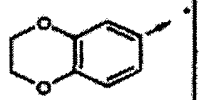
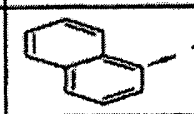
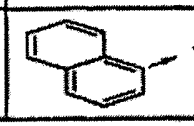
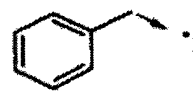


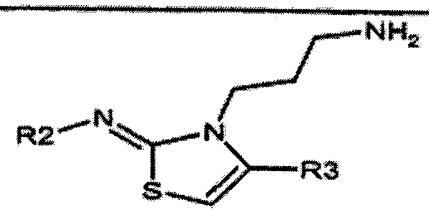
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
281			98,6	5,31	452,1
282			89,5	5,54	443,2
283			65,5	5,89	510,2
284			97,8	4,89	432,2
285			93,2	5,08	369,2
286			94,6	5,31	403,1
287			97,6	5,07	434,1
288			99,1	5,05	414,1
289			99,1	5,39	403,1
290			98,3	5,44	430,2
291			99,4	5,47	467,1
292			97,4	5,86	458,2

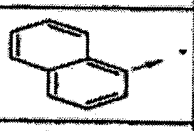
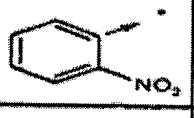
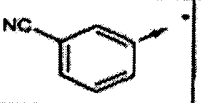
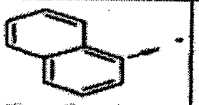
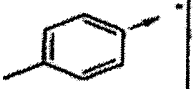
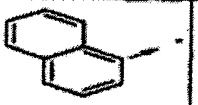
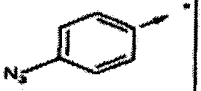
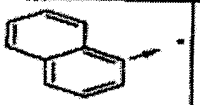
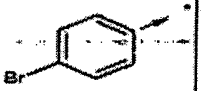
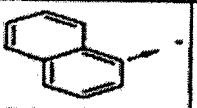
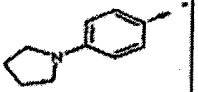
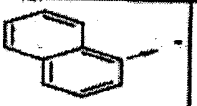
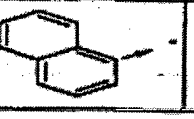
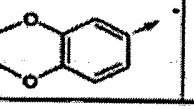


Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
293			99,5	5,87	525,1
294			98,5	5,21	447,2
295			95,7	4,41	396,3
296			92,9	5,06	430,3
297			54	5,19	461,2
298			91,8	5,07	441,2
299			95,8	5,18	430,3
300			96	5,28	457,3
301			96,9	5,45	494,2
302			87	5,49	485,3
303			35,6	6,18	552,2
304			96,7	4,97	474,3

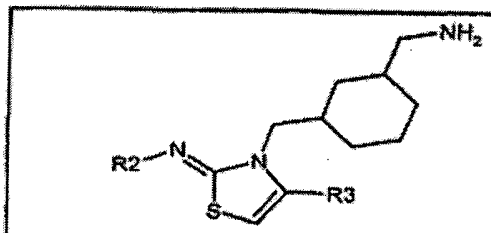


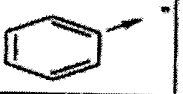
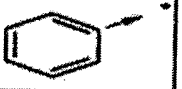
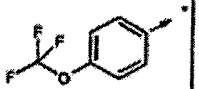
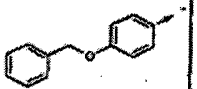
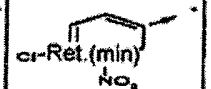
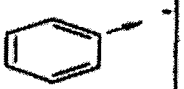
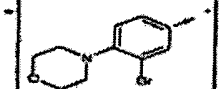
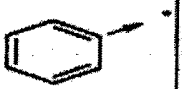
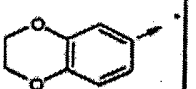
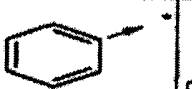
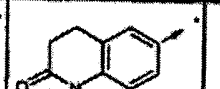
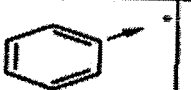
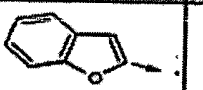
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
305			83,9	5,24	380,2
306			92,8	5,39	414,2
307			92	5,14	445,2
308			97,4	5,11	425,1
309			98,1	5,47	414,2
310			97,2	5,47	441,1
311			97	5,52	478,1
312			93,3	5,99	469,2
313			98,3	5,91	536,1
314			96,5	5,31	458,2
315			98,7	4,12	340,3
316			93,4	4,66	374,2



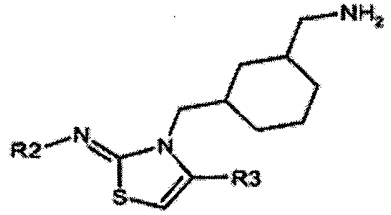
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
317			98,9	4,78	405,2
318			97,8	4,71	385,2
319			98,1	4,78	374,2
320			97,2	4,9	401,2
321			98,8	5,09	438,1
322			95,8	5,07	429,3
323			98,5	5,82	496,2
324			97,5	4,59	418,2

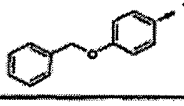
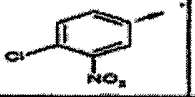
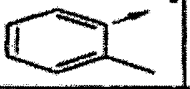
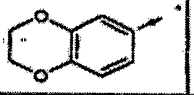
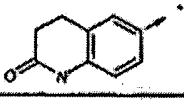
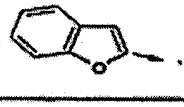
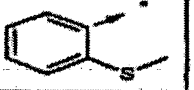
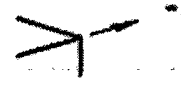
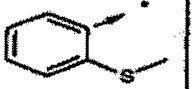
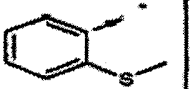
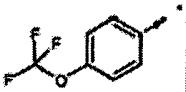
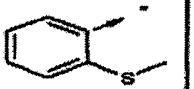
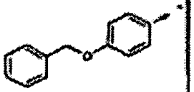
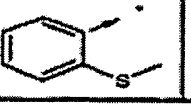
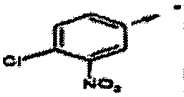
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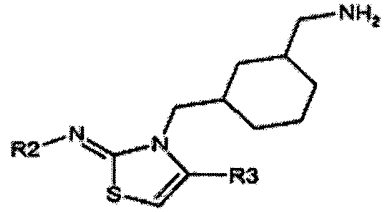
Pf.	R2	R3	Čistota(%)	tr (min)	[M+H]+
325			93	3,71	358,2
326			68 + 30	4,0 + 4,1	396,2
327			69 + 31	4,5 + 4,6	462,2
328			66 + 27	4,7 + 4,8	484,3
329			67 + 31	4,4 + 4,6	457,2
330			67 + 30	4,3 + 4,5	541,2
331			62 + 33	3,9 + 4,0	436,2
332			64 + 30	3,5 + 3,6	447,3
333			65 + 30	4,7 + 4,9	418,2
334			68 + 29	3,8 + 3,9	372,3
335			69 + 29	4,2 + 4,3	410,2
336			68 + 30	4,6 + 4,8	476,2

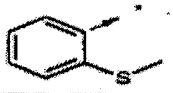
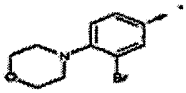
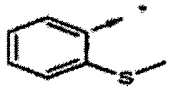
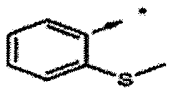
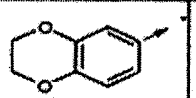
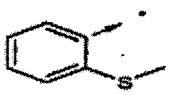
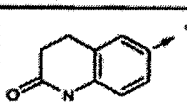
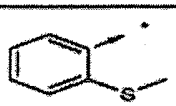
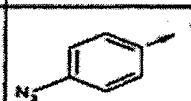
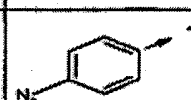
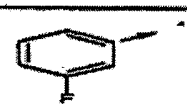
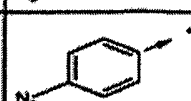
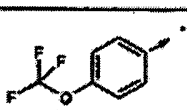
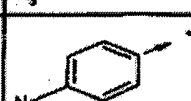
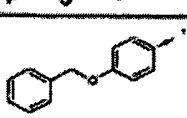
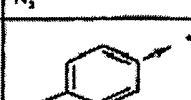
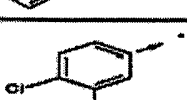
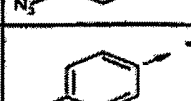
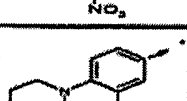
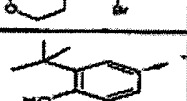
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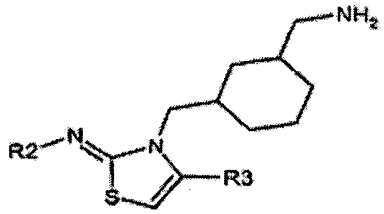
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
337			61 + 32	4,8 + 4,89	498,3
338			66 + 30	4,55 + 4,71	471,2
339			68 + 29	4,46 + 4,58	555,2
340			22 + 11	5,13 + 5,22	520,4
341			67 + 24	4,09 + 4,14	450,3
342			71 + 23	3,7 + 3,74	461,3
343			67 + 31	4,82 + 5,02	432,2
344			66 + 31	4,14 + 4,39	404,3
345			65 + 31	4,74 + 4,94	442,2
346			65 + 31	5,25 + 5,47	508,2
347			62 + 29	5,28 + 5,5	530,3
348			65 + 30	5,21 + 5,38	503,2

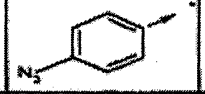
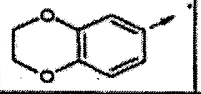
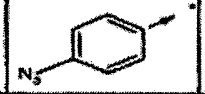
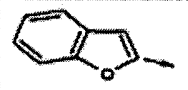
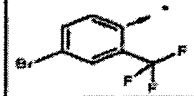
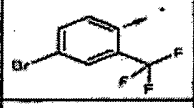
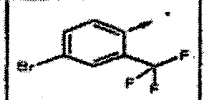
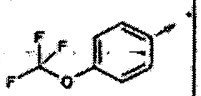
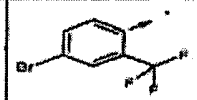
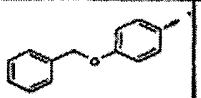
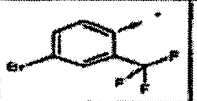
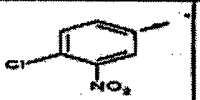
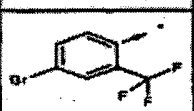
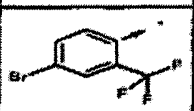
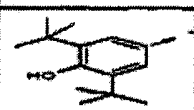
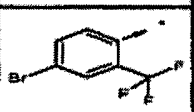
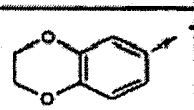
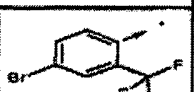
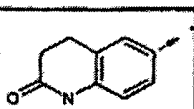
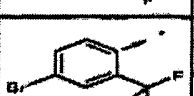
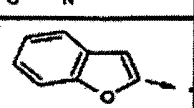
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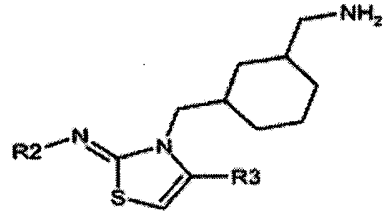
Pr.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
349			63 + 30	5,03 + 5,24	587,2
350			64 + 30	5,59 + 5,84	552,3
351			58 + 28	4,49 + 4,66	482,3
352			64 + 26	4,01 + 4,11	493,3
353			65 + 31	5,64 + 5,71	464,2
354			57 + 24	4,08 + 4,19	399,3
355			62 + 28	4,52 + 4,7	437,2
356			62 + 28	5 + 5,2	503,2
357			58 + 26	5,08 + 5,25	525,3
358			62 + 29	4,98 + 5,19	498,2
359			62 + 29	4,82 + 4,99	582,2
360			62 + 28	5,39 + 5,58	547,3

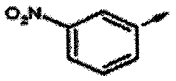
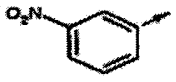
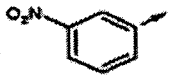
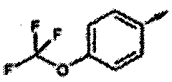
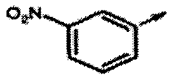
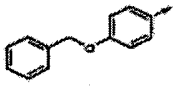
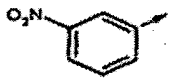
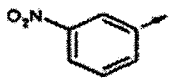
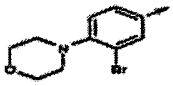
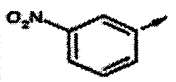
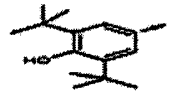
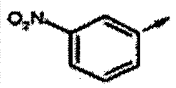
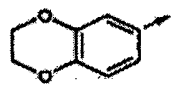
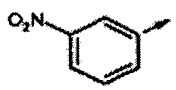
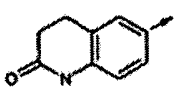
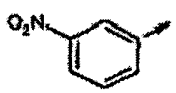
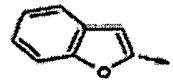
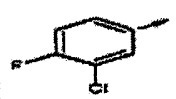
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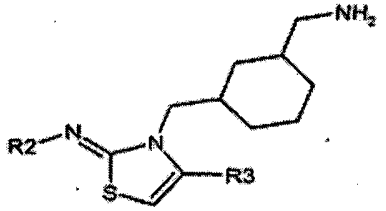
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
361			56 + 26	4,37 + 4,49	477,3
362			64 + 32	5,32 + 5,55	459,2
363			94	6,36	505,2
364			98	6,39	542,1
365			25 + 72	6,74 + 6,77	608,1
366			92	7,07	630,2
367			23 + 73	6,38 + 6,42	603,1
368			26 + 69	6,73 + 6,76	687,1
369			60	7,55	652,3
370			82	6,39	582,1
371			94	5,74	593,2
372			22 + 73	6,68 + 6,74	564,1

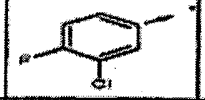
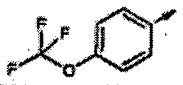
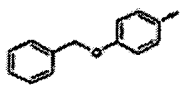
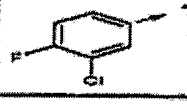
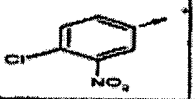
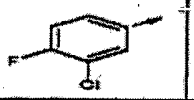
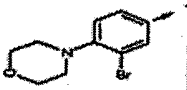
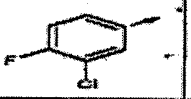
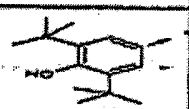
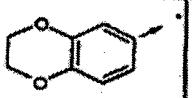
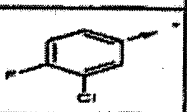
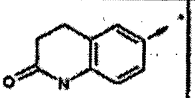
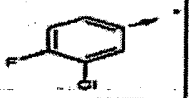
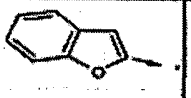
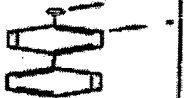
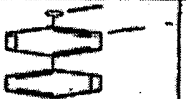
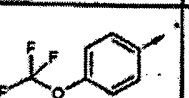
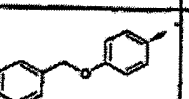
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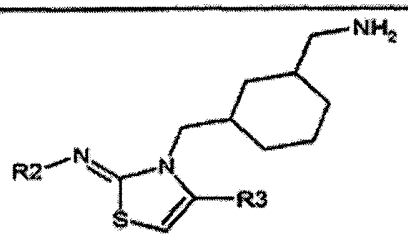
Pf.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
373			59 + 27	4,88 + 5,13	403,3
374			67 + 30	5,35 + 5,44	441,2
375			64 + 34	5,84 + 5,92	507,2
376			62 + 28	6 + 6,13	529,3
377			97	5,58	502,2
378			65 + 32	5,71 + 5,8	586,2
379			49 + 23	6,45 + 6,58	551,3
380			61 + 26	5,18 + 5,3	481,2
381			45 + 21	4,57 + 4,68	492,3
382			84	5,9	463,2
383			56 + 26	4,65 + 4,89	410,2
384			64 + 30	5,29 + 5,47	448,2

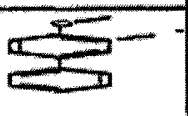
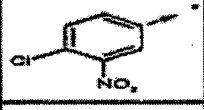
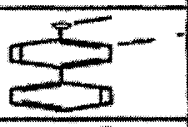
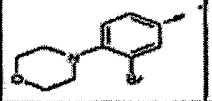
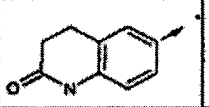
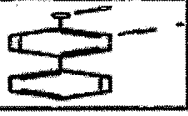
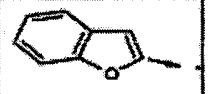
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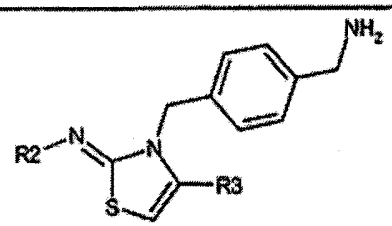
Př.	R2	R3	Čistota(%)	Rel.(min)	[M+H]+
385			65 + 30	5,78 + 5,95	514,2
386			63 + 27	5,8 + 6,02	536,2
387			65 + 31	5,71 + 5,81	509,1
388			62 + 32	5,59 + 5,79	593,1
389			30 + 14	6,22 + 6,45	558,3
390			57 + 26	5,01 + 5,2	488,2
391			54 + 26	4,46 + 4,61	499,2
392			27 + 11	6,09 + 6,18	470,2
393			63 + 29	4,53 + 4,6	464,3
394			65 + 30	4,78 + 4,93	502,3
395			61 + 28	5,16 + 5,35	568,2
396			59 + 25	5,3 + 5,42	590,3

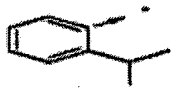
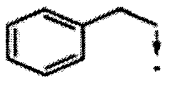
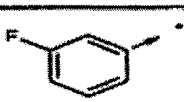
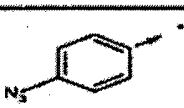
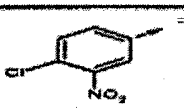
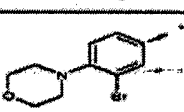
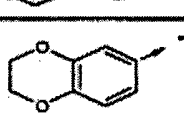
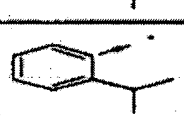
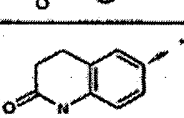
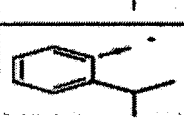
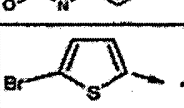
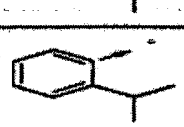
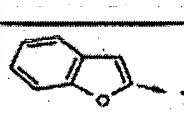
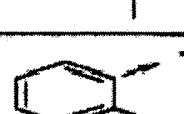
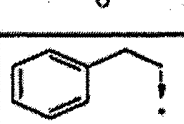
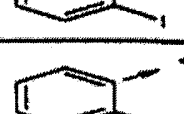
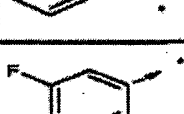
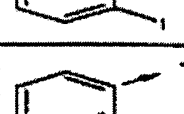
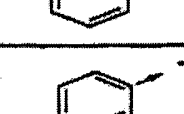
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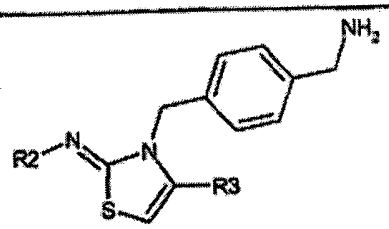


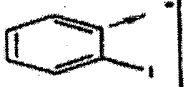
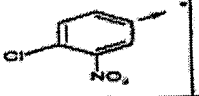
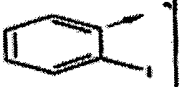
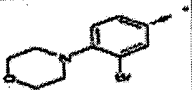
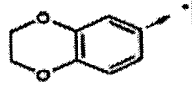
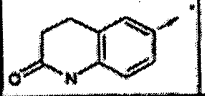
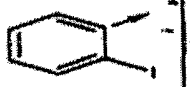
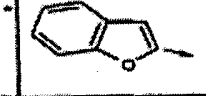
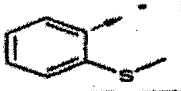
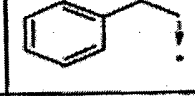
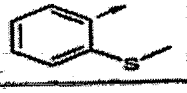
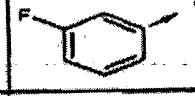
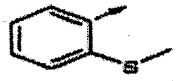
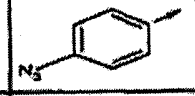
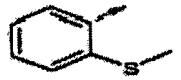
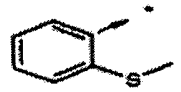
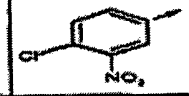
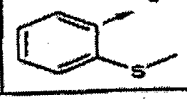
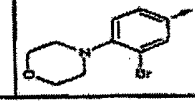
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
397			60 + 30	5,12 + 5,34	563,2
398			63 + 32	5,01 + 5,17	647,2
399			59 + 26	5,55 + 5,7	612,4
400			52 + 14	4,35 + 4,4	553,3
401			61 + 29	5,36 + 5,64	524,3

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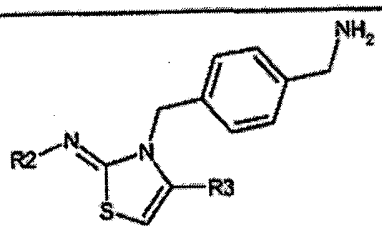


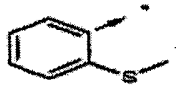
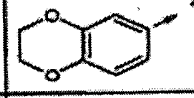
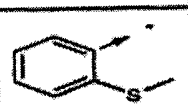
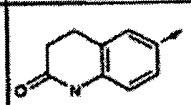
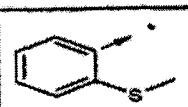
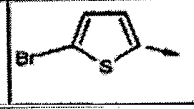
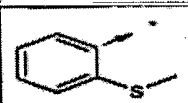
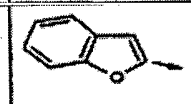
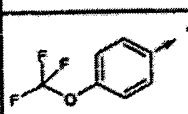
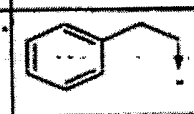
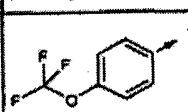
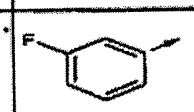
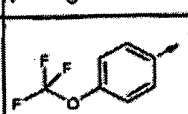
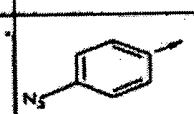
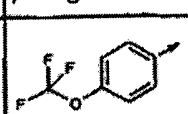
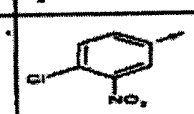
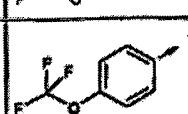
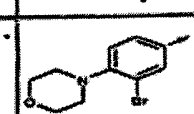
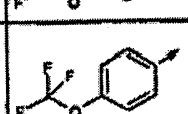
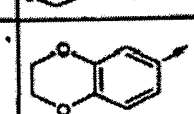
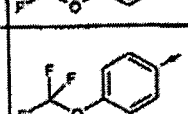
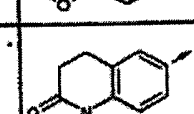
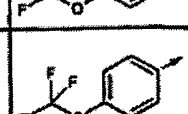
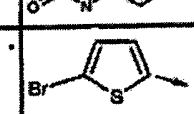
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
402			88,5	4,52	442,1
403			94,6	4,72	432,15
404			95	4,78	455,16
405			98,6	5,19	493,12
406			95,8	4,99	577,11
407			95,1	4,44	472,19
408			96,3	4,0	483,21
409			94,5	5,35	498,04
410			94,1	5,61	454,15
411			83	5,43	526,03
412			94,9	5,4	515,97
413			93,4	5,52	539,00



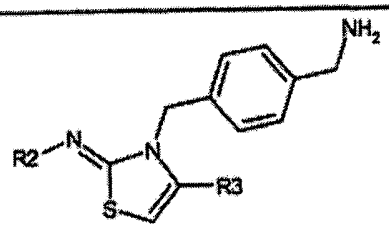
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]⁺
414			97,1	5,48	576,95
415			92,7	5,69	660,99
416			92,2	5,27	555,98
417			92	4,7	567,00
418			89,7	5,73	581,87
419			87,8	5,77	538,00
420			84,4	4,74	446,14
421			92,6	4,9	436,08
422			91,2	5,0	459,10
423			72,4	5,0	487,16
424			94,9	5,19	497,07
425			91,7	5,18	581,05

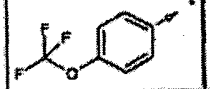
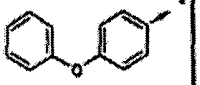
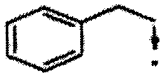
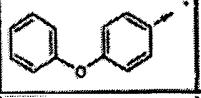
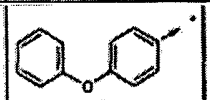
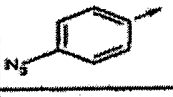
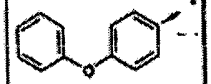
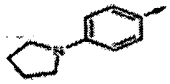
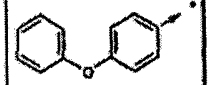
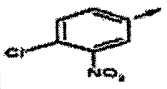
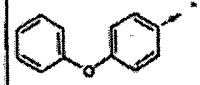
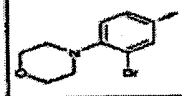
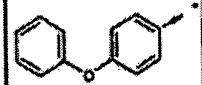
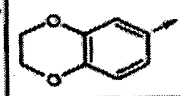
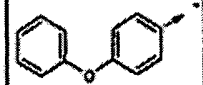
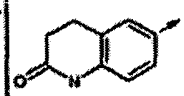
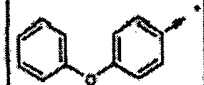
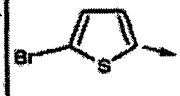
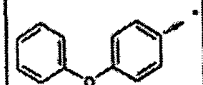
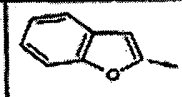
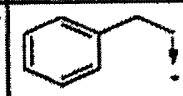
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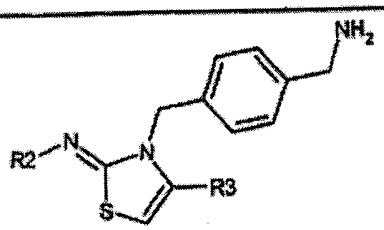
Pr.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
426			91,5	4,67	476,12
427			89,6	4,16	487,13
428			91,7	5,38	501,96
429			89,9	5,48	458,10
430			87,1	5,26	484,14
431			95,7	5,41	474,10
432			94,6	5,51	497,12
433			97,4	5,64	535,01
434			96,2	5,69	619,04
435			94,4	5,21	514,10
436			94,7	4,67	525,11
437			92,7	5,84	539,94

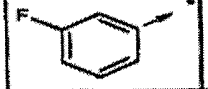
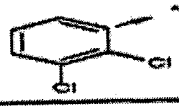
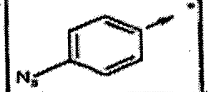
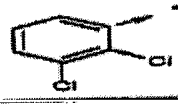
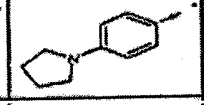
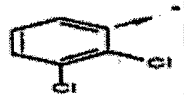
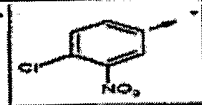
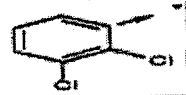
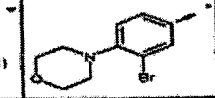
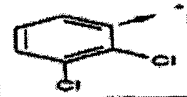
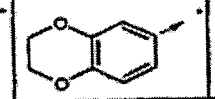
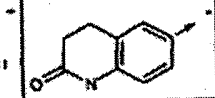
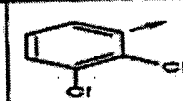
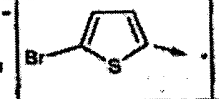
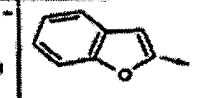
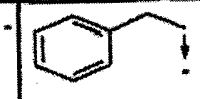
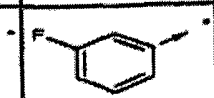
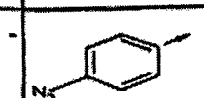
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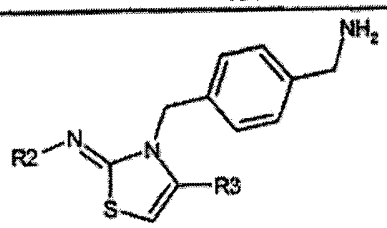


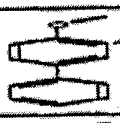
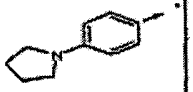
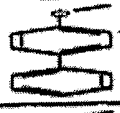
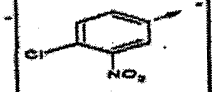
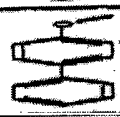
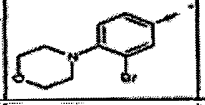
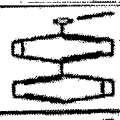
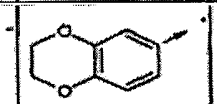
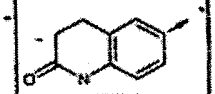
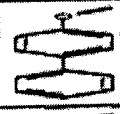
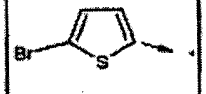
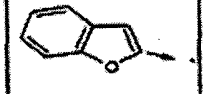
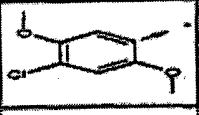
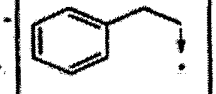
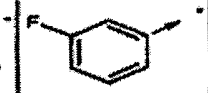
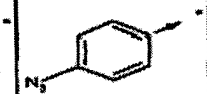
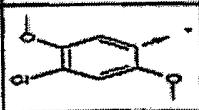
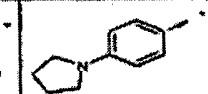
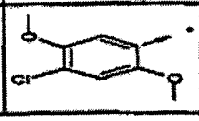
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
438			91	5,93	496,09
439			82,4	4,82	492,18
440			92,2	5,03	482,14
441			90,4	5,08	505,15
442			33,4	5,14	533,18
443			97,6	5,45	543,07
444			93,9	5,26	627,10
445			93,6	4,78	522,14
446			94	4,34	533,15
447			91,6	5,6	547,98
448			92,6	5,82	504,14
449			84,9	5,76	468,08

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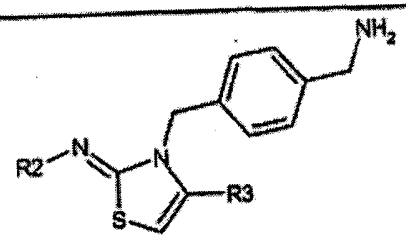


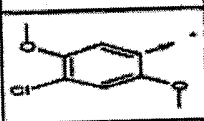
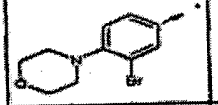
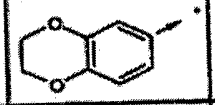
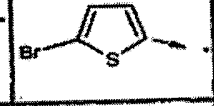
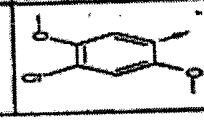
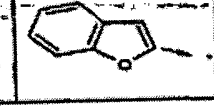
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
450			95,4	5,54	458,03
451			93,3	5,74	481,03
452			85,3	6,21	509,06
453			97,4	5,62	518,97
454			92	5,91	602,90
455			91,4	5,54	498,06
456			91,4	4,98	509,06
457			88,7	5,9	523,88
458			88,5	5,88	480,05
459			88,2	4,69	506,16
460			93,1	4,87	496,15
461			91,2	4,92	519,15



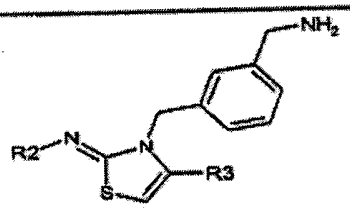
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
462			26,9	5,01	547,17
463			93,9	5,26	557,08
464			93,2	5,08	641,13
465			95,7	4,64	536,15
466			95,3	4,24	547,15
467			92,3	5,39	562,00
468			92	5,6	518,14
469			75,3	4,59	494,13
470			97,1	4,73	484,11
471			95,4	4,81	507,11
472			10,7	4,9	535,14
473			96,4	5,07	545,02

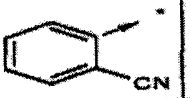
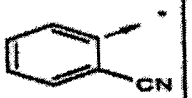
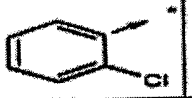
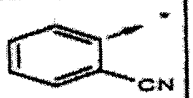
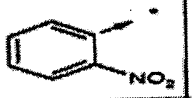
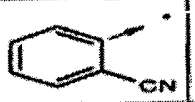
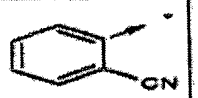
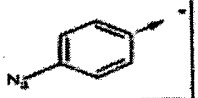
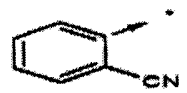
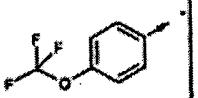
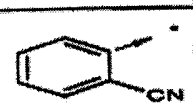
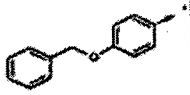
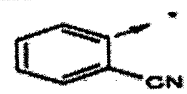
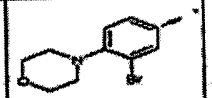
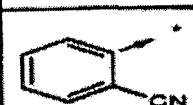
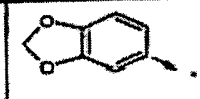
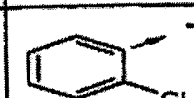
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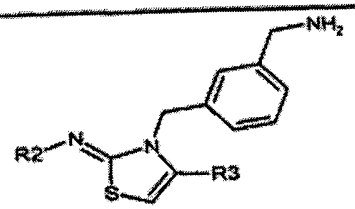
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
474			96,5	4,98	629,05
475			95,2	4,5	524,08
476			96	4,06	535,09
477			95,3	5,22	549,95
478			94,1	5,36	506,08

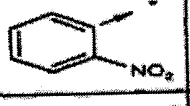
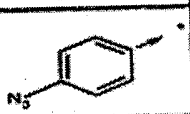
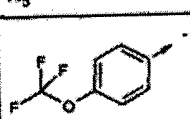
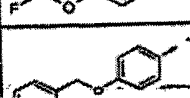
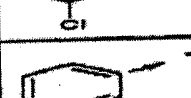
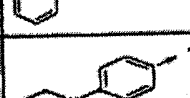
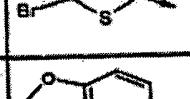
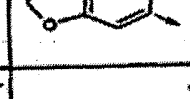
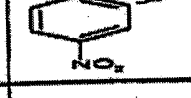
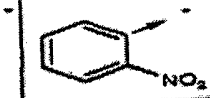
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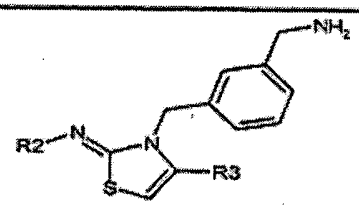
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]⁺
479			45,6	4,95	377,14
480			79	5,17	431,07
481			56,8	4,84	442,08
482			79,2	5,04	415,07
483			78,4	5,25	438,11
484			82,6	5,47	481,10
485			72,6	5,81	503,17
486			79	5,36	560,04
487			72,1	5,34	480,98
488			76,9	5,0	441,09
489			94,5	4,6	386,09
490			95,4	5,34	440,04

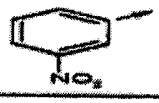
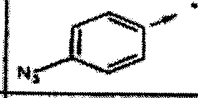
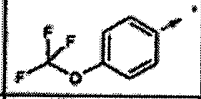
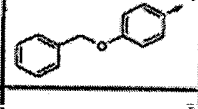
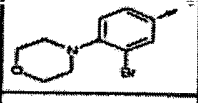
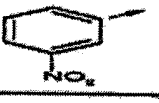
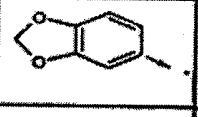
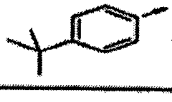
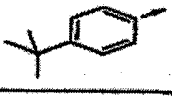
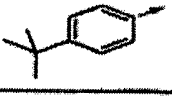
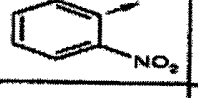
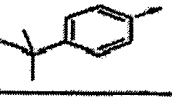
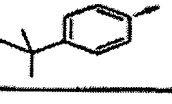
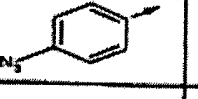
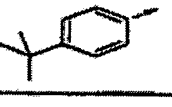
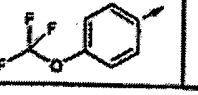
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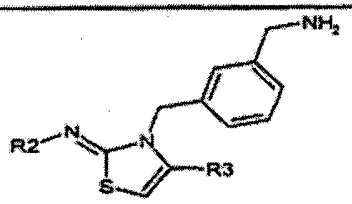
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
491			95,3	5,05	451,06
492			95,2	5,23	424,07
493			93,4	5,35	447,07
494			96,1	5,67	490,07
495			88,5	5,84	512,12
496			92,9	5,55	569,00
497			92,8	5,64	489,95
498			92	5,03	450,08
499			96,5	4,87	397,11
500			96,1	5,26	451,06
501			96,1	4,95	462,07
502			96,3	5,15	435,08

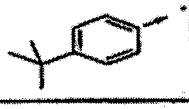
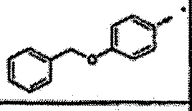
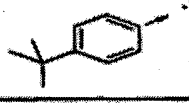
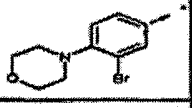
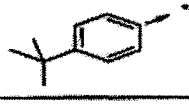
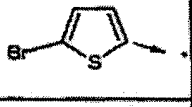
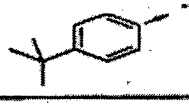
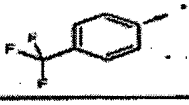
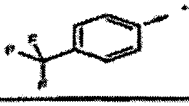
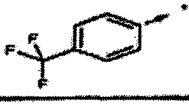
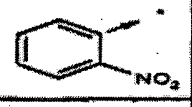
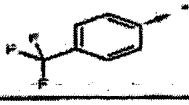
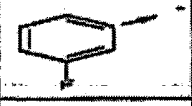
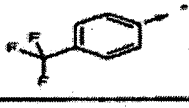
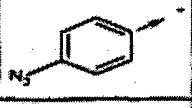
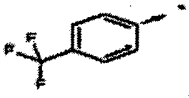
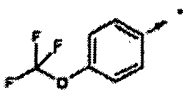
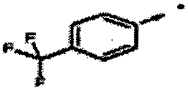
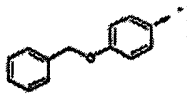
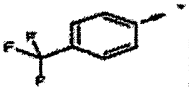
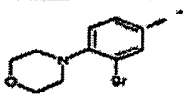
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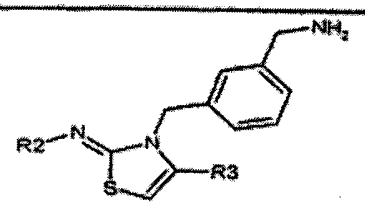
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
503			96,2	5,31	458,11
504			96,5	5,57	501,08
505			89,3	5,86	523,15
506			95,8	5,46	580,03
507			94,2	5,45	500,96
508			93,5	5,07	461,08
509			98,5	4,29	408,18
510			97,2	4,98	462,13
511			96,4	4,81	473,19
512			96,3	4,9	446,17
513			94,7	4,93	469,19
514			96,9	5,29	512,17

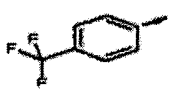
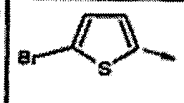
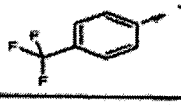
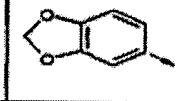
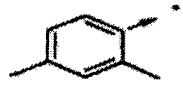
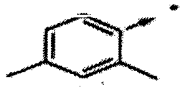
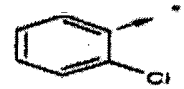
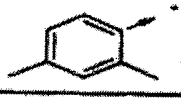
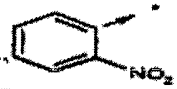
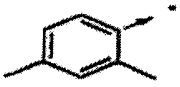
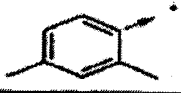
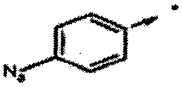
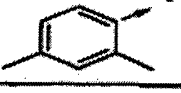
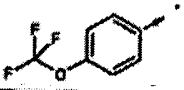
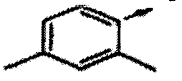
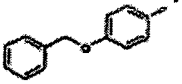
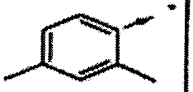
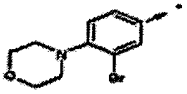
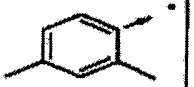
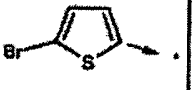
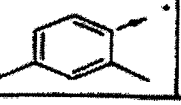
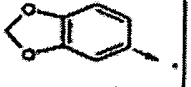
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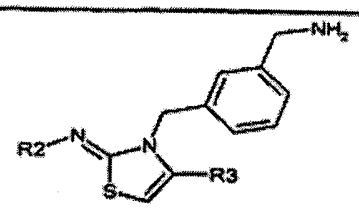
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
515			90,6	5,33	534,20
516			96,3	5,15	591,13
517			93,5	5,47	512,04
518			95	4,65	472,19
519			95,5	5,14	420,13
520			95,6	5,63	474,07
521			93,8	5,35	485,10
522			95,1	5,53	458,09
523			94,2	5,67	481,10
524			94,6	5,9	524,09
525			88,4	6,15	546,11
526			92,6	5,83	603,07

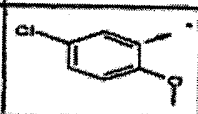
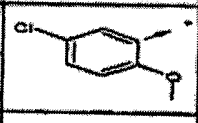
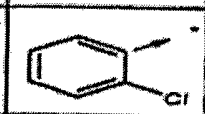
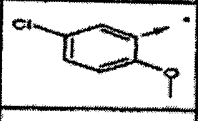
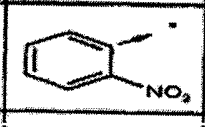
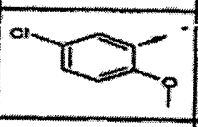
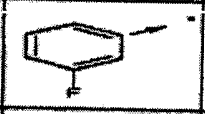
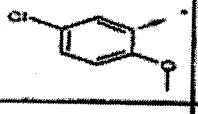
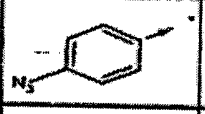
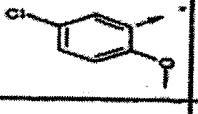
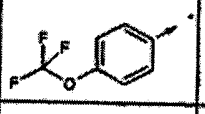
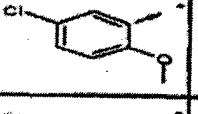
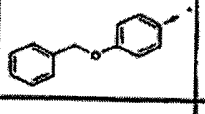
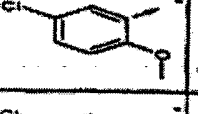
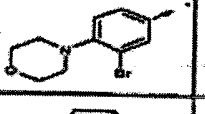
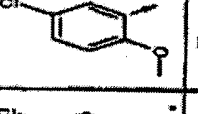
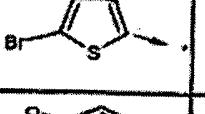
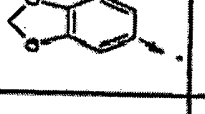
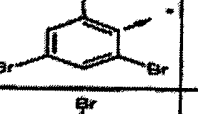
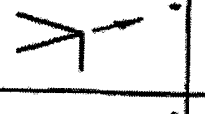
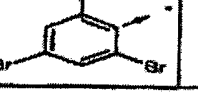
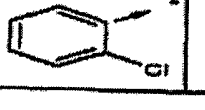
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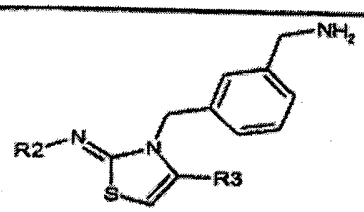
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]⁺
527			89,8	5,87	523,97
528			92,3	5,41	484,11
529			98,2	3,75	380,18
530			96,4	4,35	434,11
531			96,5	4,19	445,13
532			95,7	4,25	418,14
533			94,4	4,33	441,13
534			95,5	4,69	484,14
535			89,5	4,81	506,18
536			95,5	4,54	563,08
537			92,2	4,79	484,03
538			93,7	4,07	444,14

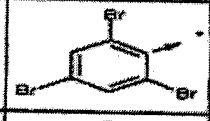
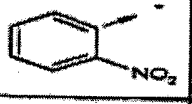
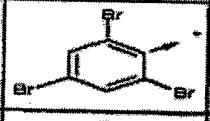
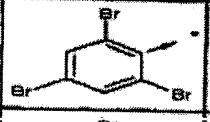
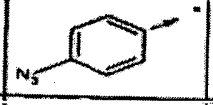
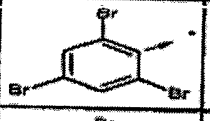
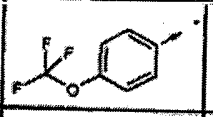
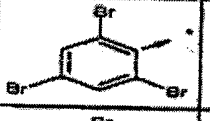
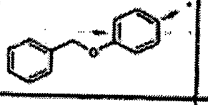
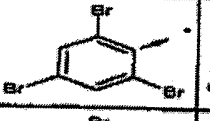
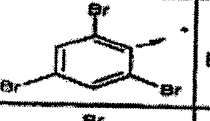
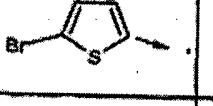
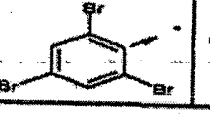
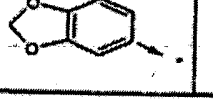
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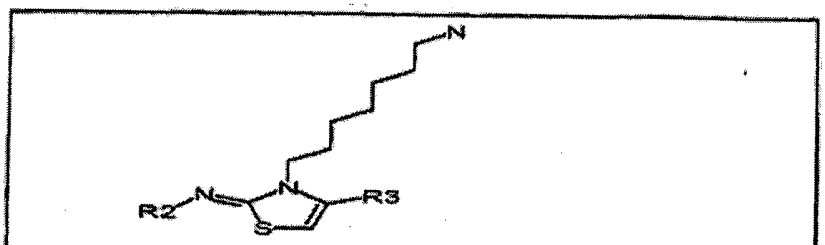
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
539			95,4	4,25	416,10
540			95,7	5,05	470,07
541			95,6	4,81	481,05
542			95,4	4,96	454,07
543			94,4	5,05	477,10
544			95,9	5,4	520,04
545			89,5	5,51	542,11
546			94	5,26	599,02
547			92,9	5,4	519,93
548			92,3	4,72	480,08
549			92	6,01	585,84
550			96,7	6,18	639,79

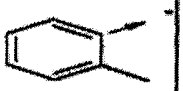
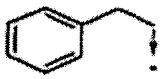
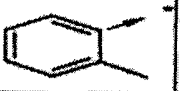
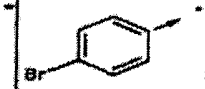
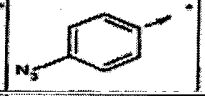
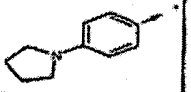
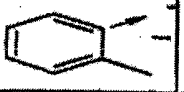
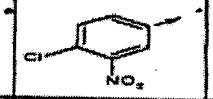
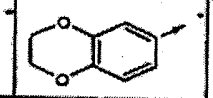
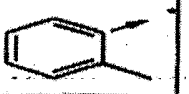
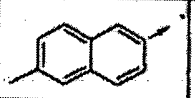
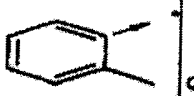
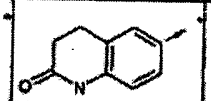
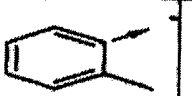
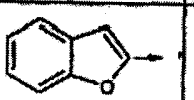
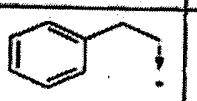
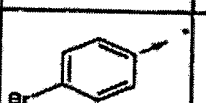
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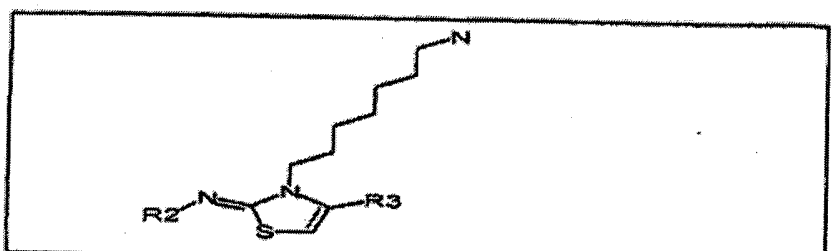
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
551			95,8	5,84	650,83
552			96	6,04	623,81
553			94,7	6,22	646,85
554			95	6,39	689,82
555			88,8	6,7	711,88
556			94,9	6,4	768,76
557			95	6,35	689,71
558			93,7	6,01	649,83

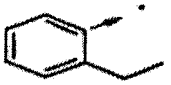
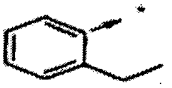
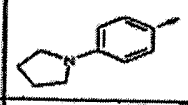
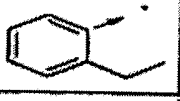
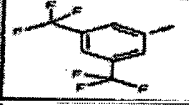
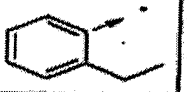
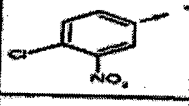
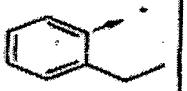
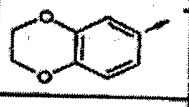
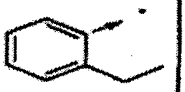
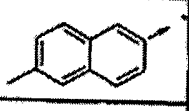
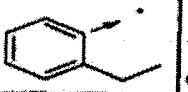
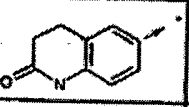
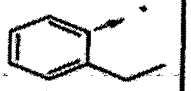
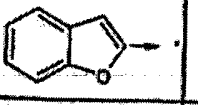
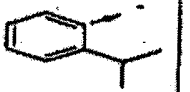
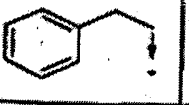
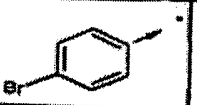
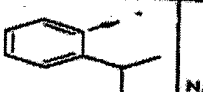
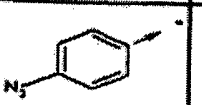
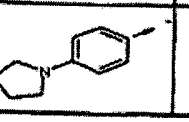
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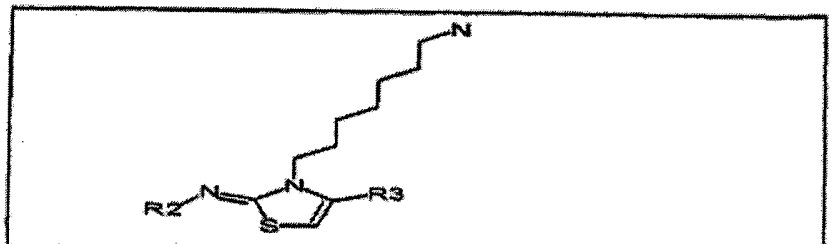
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
559			87,5	4,07	408,18
560			89,6	4,15	458,09
561			89,5	4,04	421,17
562			54,6	4,37	449,23
563			92,7	4,85	516,14
564			92,5	4,27	459,14
565			94,2	3,87	438,18
566			92,6	4,41	444,2
567			92,2	3,5	449,21
568			92,4	4,53	420,17
569			86,7	4,23	422,21
570			93,7	4,38	472,12

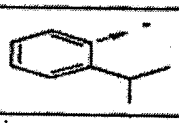
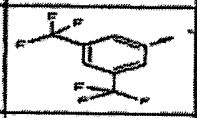
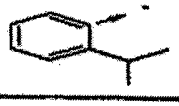
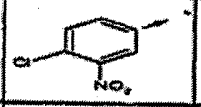
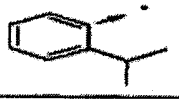
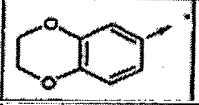
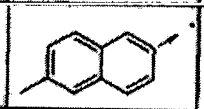
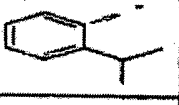
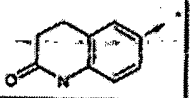
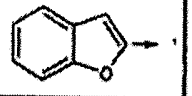
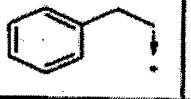
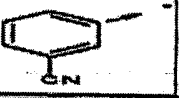
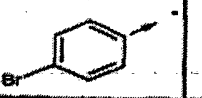
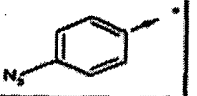
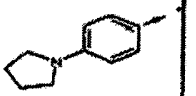
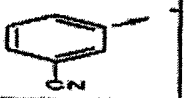
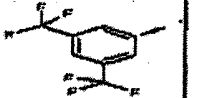
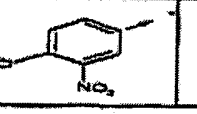
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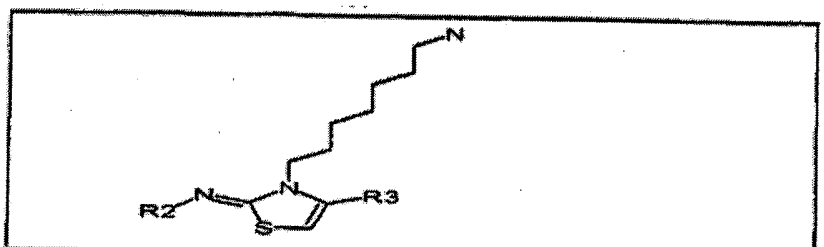
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
571			88,7	4,27	435,19
572			64,2	4,53	463,25
573			93,8	5,15	530,18
574			93,6	4,55	473,17
575			86,8	4,07	452,21
576			93,4	4,65	458,24
577			91,8	3,71	463,23
578			91,6	4,85	434,20
579			83,1	4,38	436,23
580			92,7	4,56	486,14
581			88,9	4,43	449,24
582			80,4	4,65	477,25

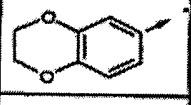
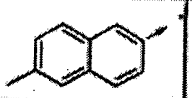
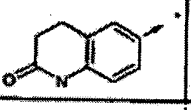
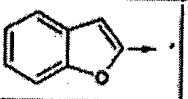
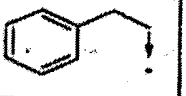
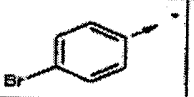
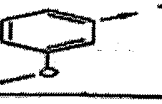
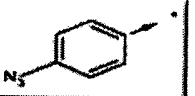
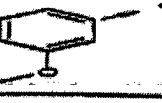
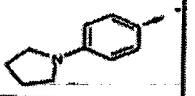
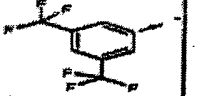
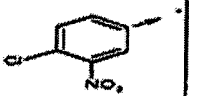
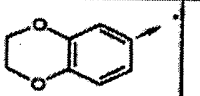
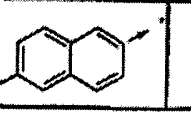
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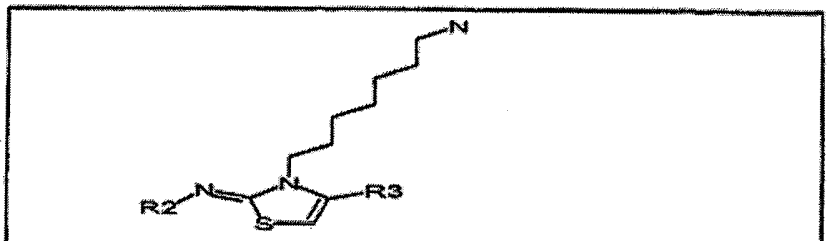


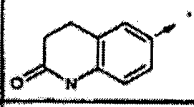
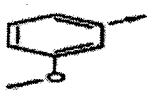
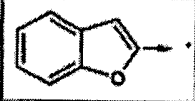
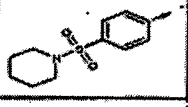
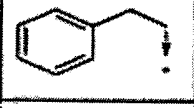
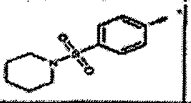
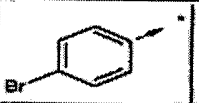
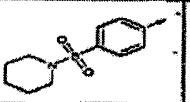
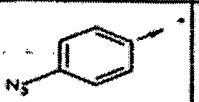
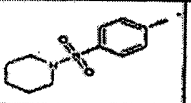
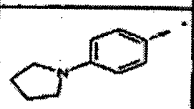
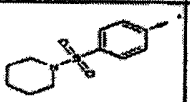
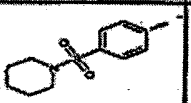
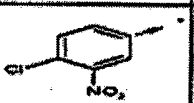
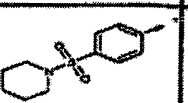
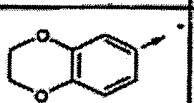
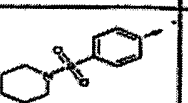
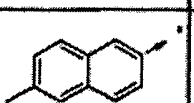
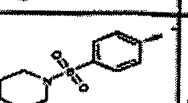
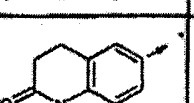
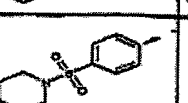
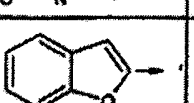
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
583			93	5,34	544,19
584			94,3	4,75	487,20
585			93,2	4,23	466,23
586			94	4,82	472,28
587			92,1	3,88	477,28
588			91,7	5,06	448,23
589			83,1	4,62	419,20
590			93	5,06	469,09
591			88	4,89	432,16
592			88,5	5,02	460,23
593			93,2	5,69	527,16
594			91,6	5,11	470,15

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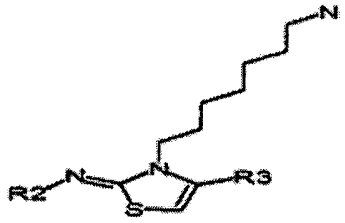


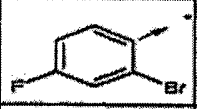
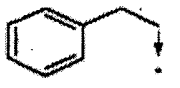
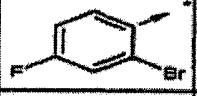
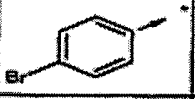
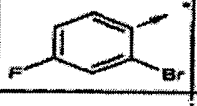
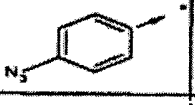
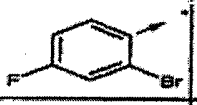
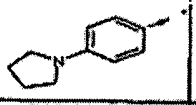
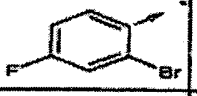
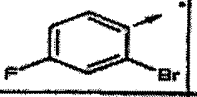
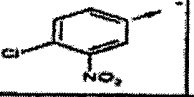
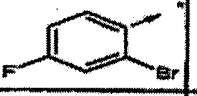
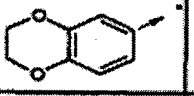
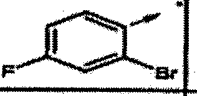
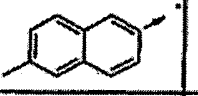
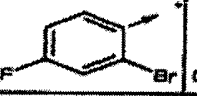
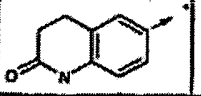
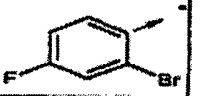
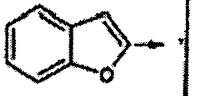
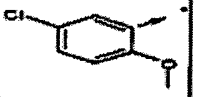
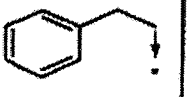
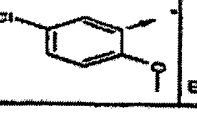
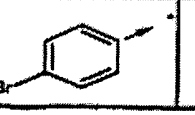
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
595			90,2	4,53	449,19
596			91,9	5,4	455,19
597			90,2	3,99	460,20
598			93	5,41	431,16
599			86,1	4,05	424,22
600			91,8	4,17	474,12
601			90,2	4,04	437,19
602			86,4	4,34	465,24
603			93,5	4,91	532,19
604			93,4	4,3	475,16
605			87,9	3,86	454,20
606			91,8	4,47	460,25

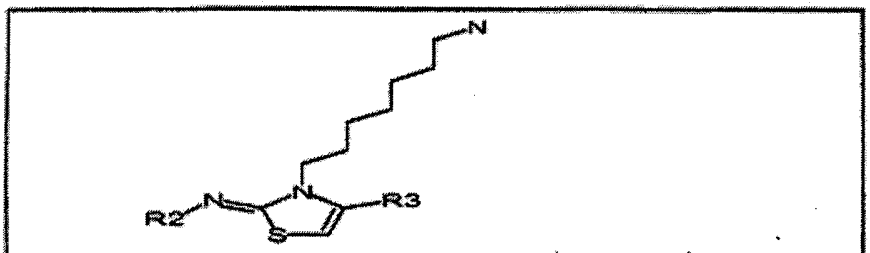


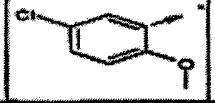
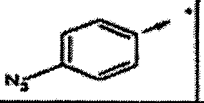
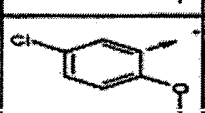
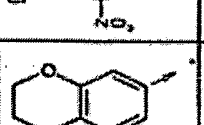
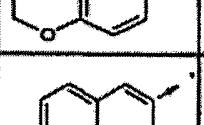
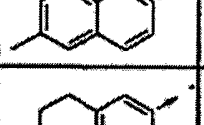
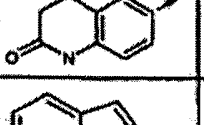
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
607			90,7	3,48	465,21
608			92	4,55	436,19
609			85,9	5,19	541,25
610			92,4	5,6	591,13
611			89,7	5,45	554,23
612			88,7	5,58	582,28
613			93,2	6,06	649,24
614			94,1	5,55	592,18
615			90	5,09	571,23
616			93,3	5,91	577,26
617			91,4	4,53	582,24
618			92,1	5,84	553,22

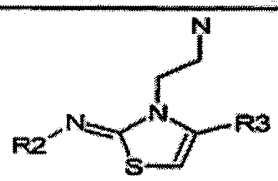
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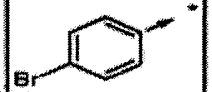
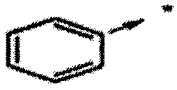
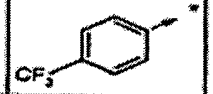
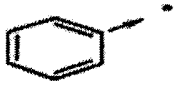
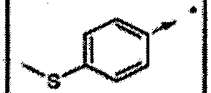
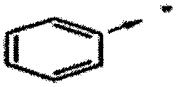
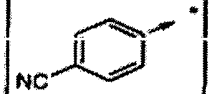
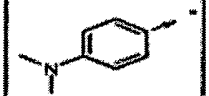
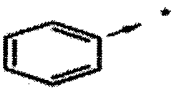
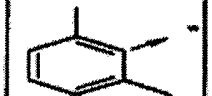
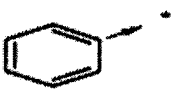
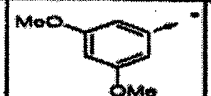
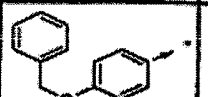
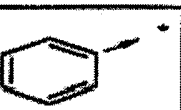
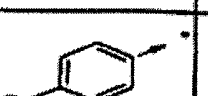
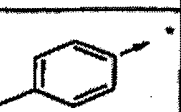
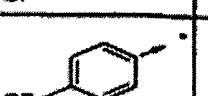


Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
619			76,6	5,06	490,15
620			91,2	5,56	539,99
621			86,7	5,39	503,12
622			81	5,47	531,15
623			92,2	6,13	598,06
624			84,8	5,59	541,03
625			88	5,04	520,11
626			91,6	5,91	526,14
627			89,4	4,49	531,11
628			90,3	5,89	502,10
629			83,3	4,41	458,20
630			91,5	4,72	508,08

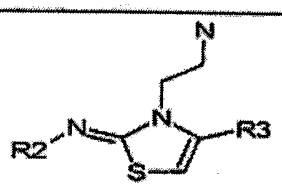


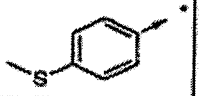
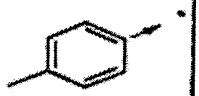
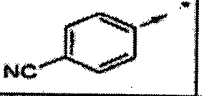
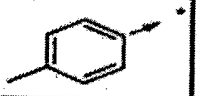
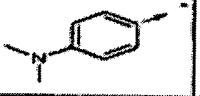
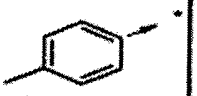
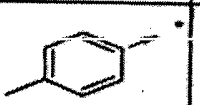
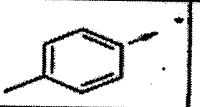
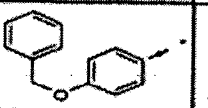
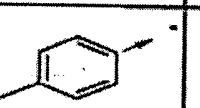
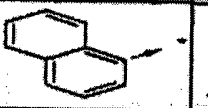
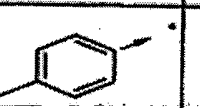
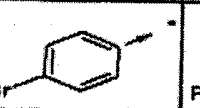
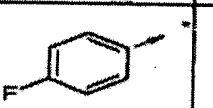
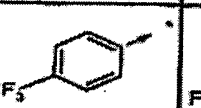
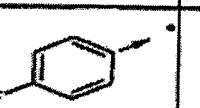
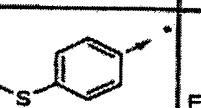
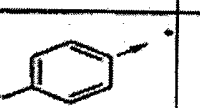
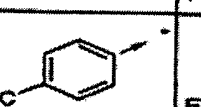
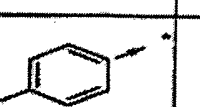
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
631			87,8	4,57	471,18
632			57,7	4,71	499,23
633			92,8	5,54	566,12
634			93,5	4,93	509,13
635			89,3	4,29	488,19
636			93,6	4,99	494,21
637			91,7	3,88	499,21
638			91,9	5,22	470,18



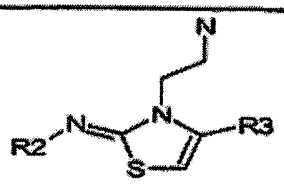
Př.	R2	R3	Čistota(%)	Rel.(min)	$[M+H]^+$
639			95	7,28	374,10
640			87	7,62	364,24
641			84	6,75	342,23
642			79	6,6	321,24
643			81	4,96	339,29
644			82	6,44	324,28
645			83	7,16	338,30
646			59	6,6	356,25
647			86	7,28	402,23
648			84	7,29	346,26
649			85	7,66	388,1
650			84	7,96	378,21

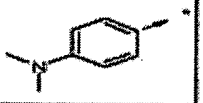
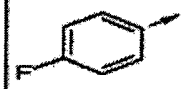
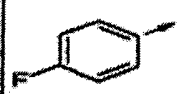
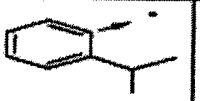
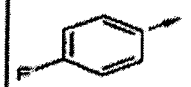
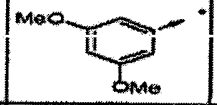
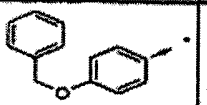
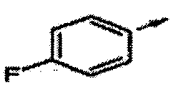
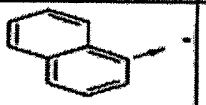
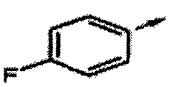
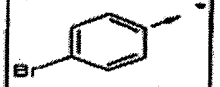
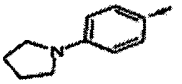
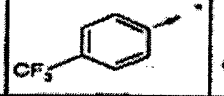
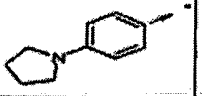
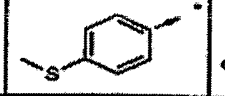
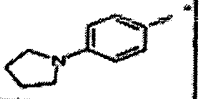
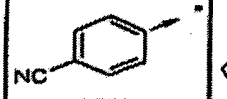
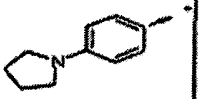
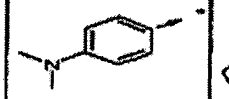
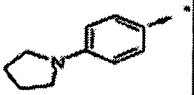
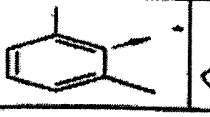
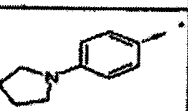
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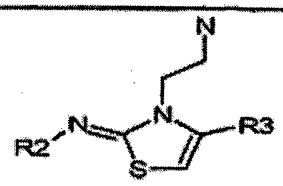
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
651			85	7,14	356,23
652			73	7,02	335,26
653			76	5,37	353,29
654			83	6,84	338,30
655			81	7,51	352,29
656			75	6,99	370,27
657			77	7,6	416,26
658			80	7,65	360,25
659			87	7,37	392,10
660			71	7,7	382,16
661			63	6,9	360,21
662			59	6,7	339,23

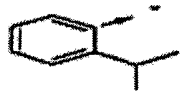
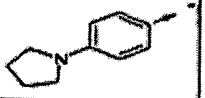
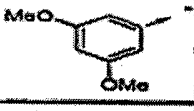
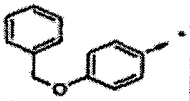
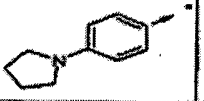
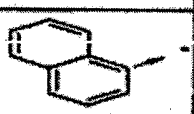
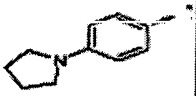
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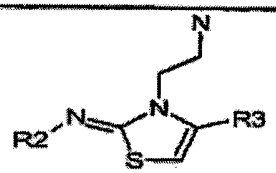
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
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664			63	6,61	342,26
665			82	7,28	356,25
666			39	6,74	374,22
667			85	7,42	420,24
668			81	7,39	364,26
669			93	8,28	443,2
670			88	8,61	433,2
671			88	7,7	411,2
672			80	7,76	390,26
673			85	6,08	408,3
674			89	7,36	393,3

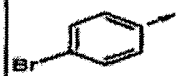
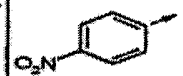
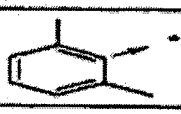
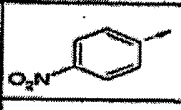
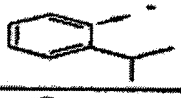
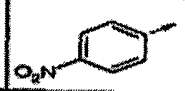
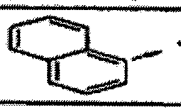
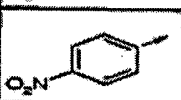
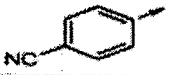
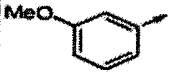
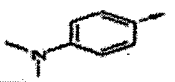
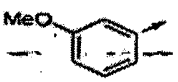
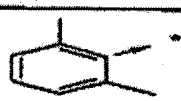
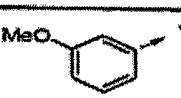
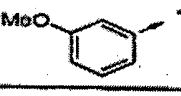
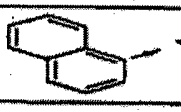
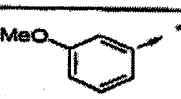
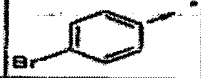
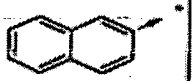
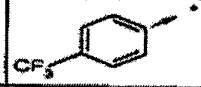
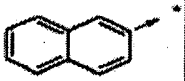
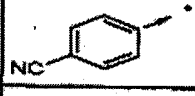
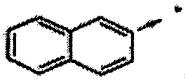
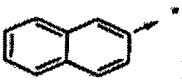
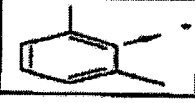
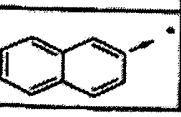
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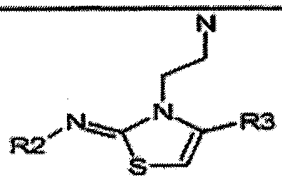
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
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676			81	7,59	425,3
677			83	8,03	471,3
678			91	8,24	416,2

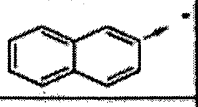
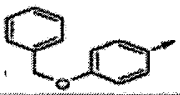
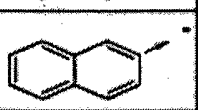
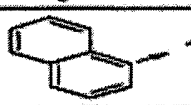
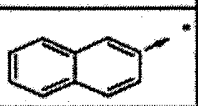
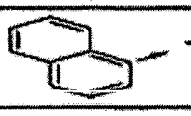
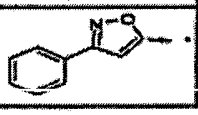
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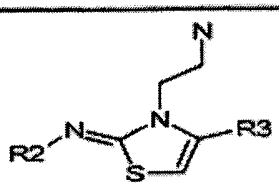
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
679			78	7,41	419,09
680			75	6,98	369,23
681			81	7,51	383,23
682			85	7,46	391,20
683			74	6,79	351,21
684			81	6,18	369,26
685			76	6,73	354,26
686			87	7,39	368,27
687			80	7,48	376,22
688			83	8,14	424,11
689			83	8,37	414,14
690			78	7,48	371,21
691			85	5,88	389,24
692			79	7,53	374,24

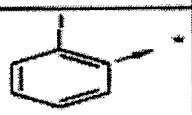
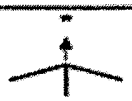
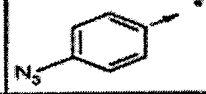
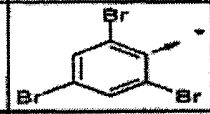
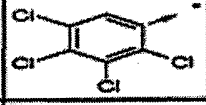
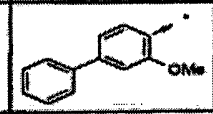
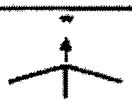
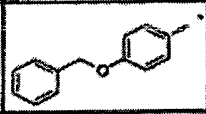
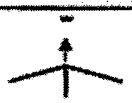
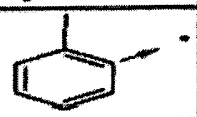
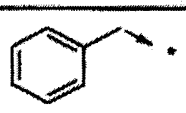
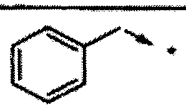
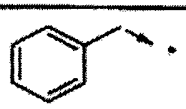
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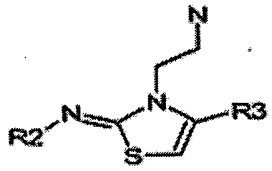
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
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694			77	8,18	452,23
695			81	8,14	396,20
696			76	7,94	413,16

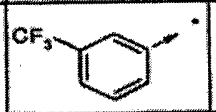
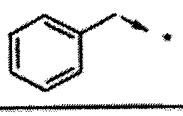
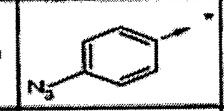
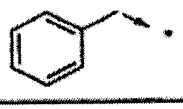
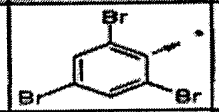
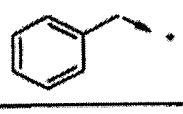
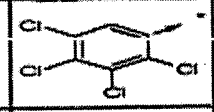
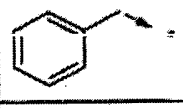
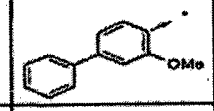
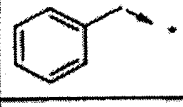
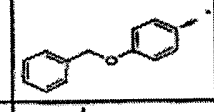
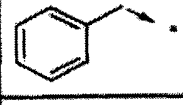
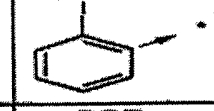
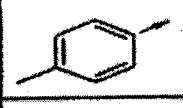
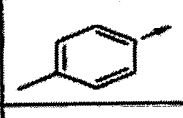
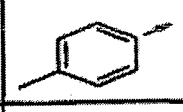
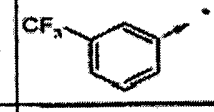
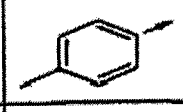
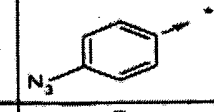
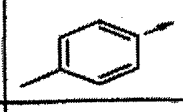
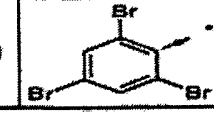
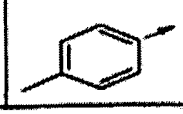
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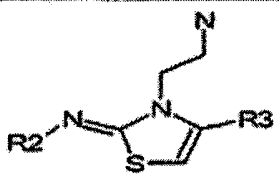
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
697			86	7,41	402,01
698			93	7,57	360,16
699			74	6,32	361,23
700			88	7,75	344,19
701			83	6,88	317,22
702			93	8,33	509,9
703			90	8,69	411,99
704			72	8,16	382,21
705			81	7,27	382,2
706			82	7,7	436,05
707			91	7,85	394,16
708			80	6,59	395,19

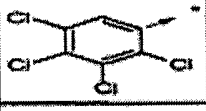
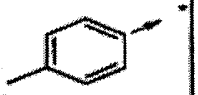
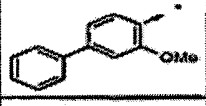
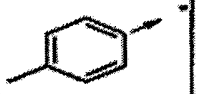
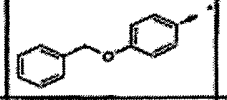
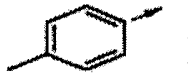
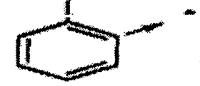
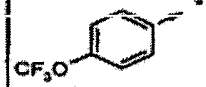
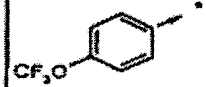
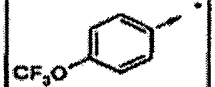
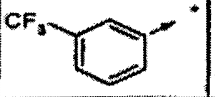
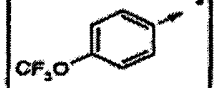
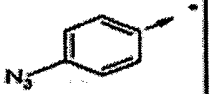
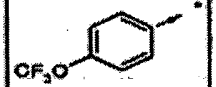
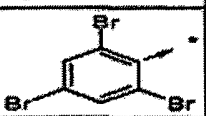
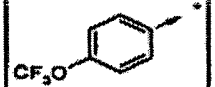
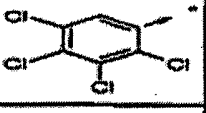
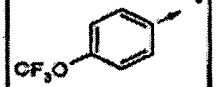
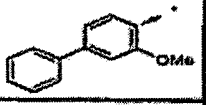
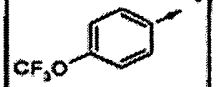
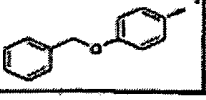
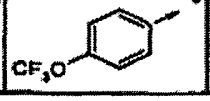
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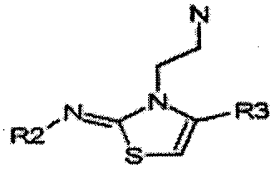
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]$^+$
709			87	7,99	378,16
710			83	7,3	351,2
711			89	8,58	543,85
712			89	8,9	446,01
713			72	8,35	416,19
714			82	7,62	416,19
715			85	7,84	436,05
716			88	7,97	394,14
717			75	6,82	395,21
718			88	8,13	378,13
719			78	7,5	351,2
720			91	8,65	543,86

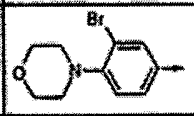
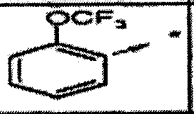
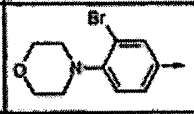
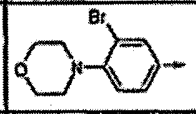
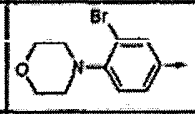
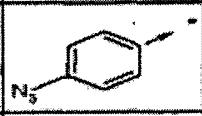
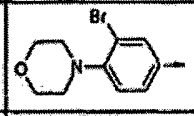
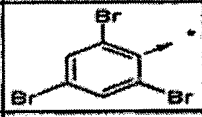
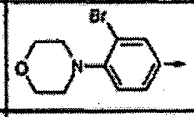
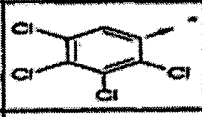
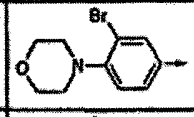
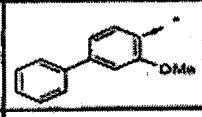
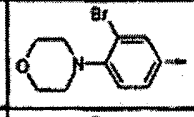
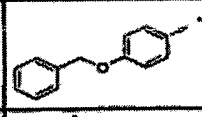
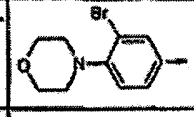
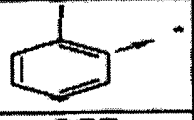
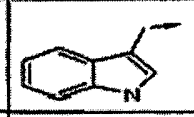
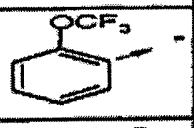
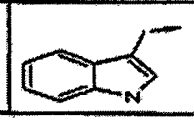
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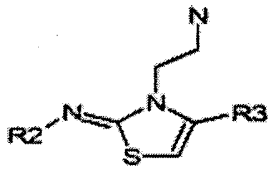
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
721			89	8,97	446,0
722			75	8,55	416,19
723			83	7,84	416,19
724			90	8,24	506,01
725			88	8,37	464,1
726			76	7,43	465,17
727			86	8,52	448,1
728			84	8,11	421,11
729			89	8,97	613,8
730			90	9,24	515,94
731			74	8,94	486,17
732			81	8,51	486,16

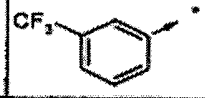
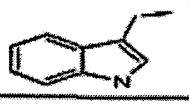
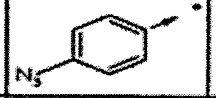
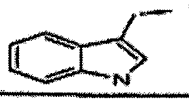
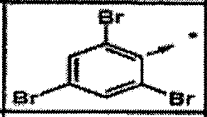
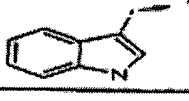
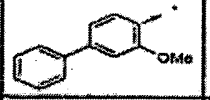
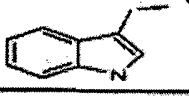
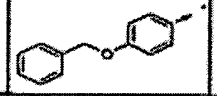
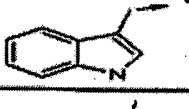
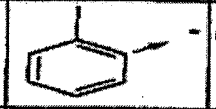
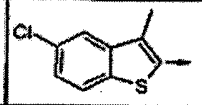
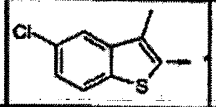
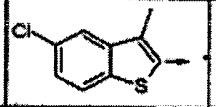
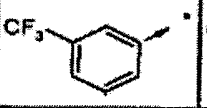
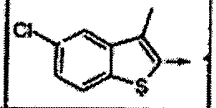
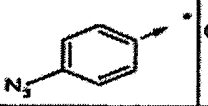
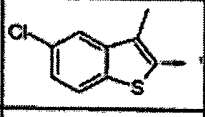
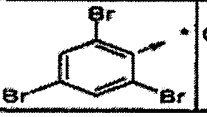
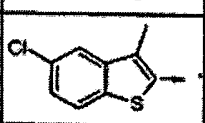
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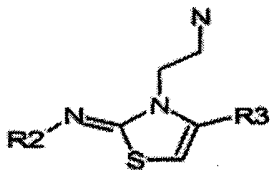
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
733			82	8,15	584,93
734			81	8,26	543,05
735			69	7,31	544,1
736			80	8,43	527,07
737			82	7,99	500,1
738			88	8,92	692,79
739			85	9,23	594,87
740			71	8,84	565,1
741			79	8,36	565,08
742			82	7,77	475,06
743			81	7,91	433,13
744			86	6,72	434,21

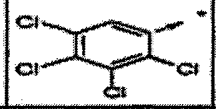
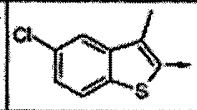
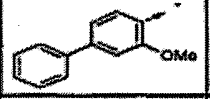
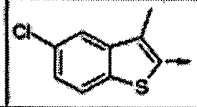
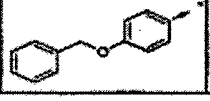
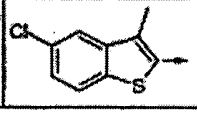
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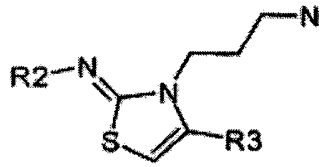
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
745			82	8,03	417,15
746			74	7,32	390,17
747			86	8,61	582,85
748			76	8,94	485,01
749			73	8,33	455,19
750			84	7,59	455,2
751			67	8,82	525,96
752			75	8,93	484,08
753			68	8,08	485,14
754			75	9,08	468,06
755			78	8,77	441,06
756			81	9,56	633,79

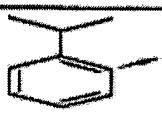
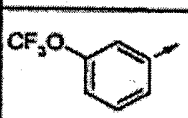
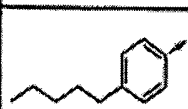
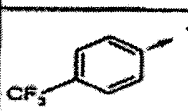
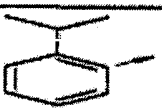
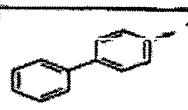
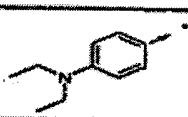
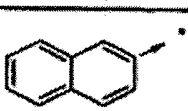
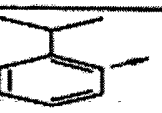
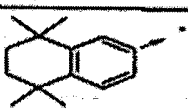
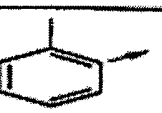
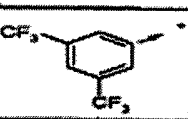
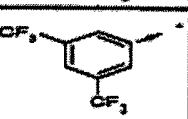
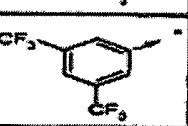
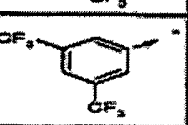
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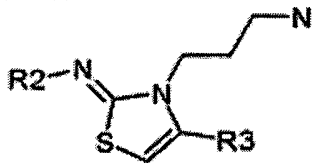
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
757			81	9,77	535,91
758			70	9,55	506,12
759			78	9,21	506,13

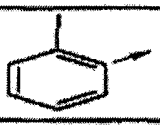
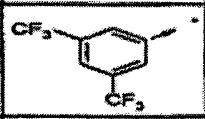
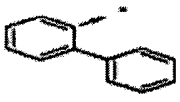
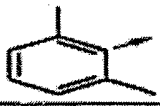
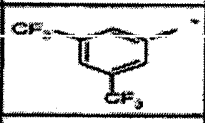
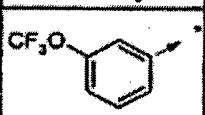
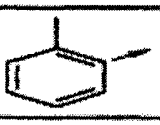
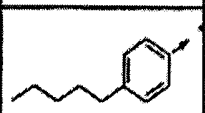
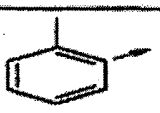
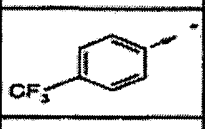
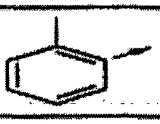
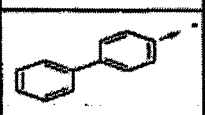
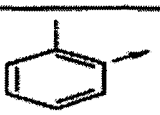
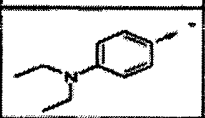
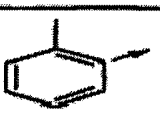
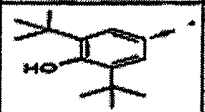
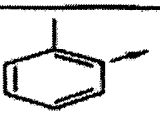
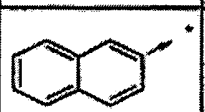
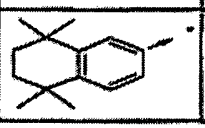
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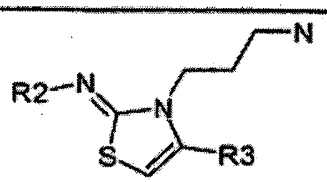
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
760			92,9	5,03	436,23
761			90,4	5,56	422,33
762			94,36	4,94	420,26
763			88,08	5,09	428,30
764			77,6	4,42	423,34
765			92,4	5,52	480,38
766			84,6	4,8	402,25
767			89,8	5,79	462,37
768			91,9	5,12	460,20
769			91,4	5,14	476,21
770			94,2	5,67	514,18
771			93,0	5,37	464,18

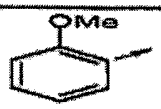
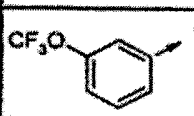
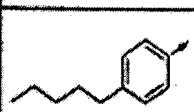
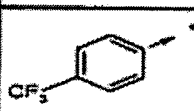
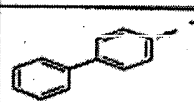
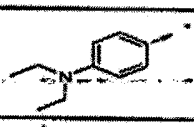
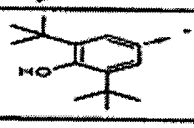
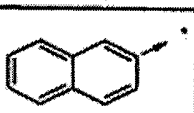
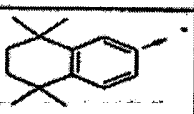
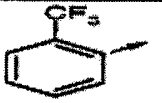
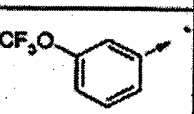
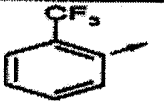
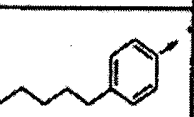
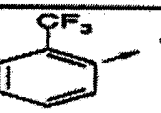
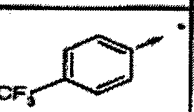
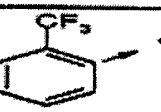
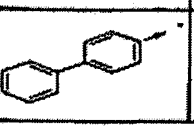
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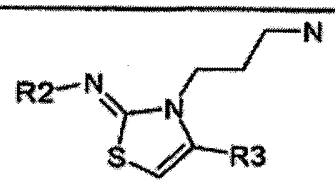
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
772			94,5	5,64	572,07
773			87,9	5,76	522,21
774			91,2	5,12	474,23
775			78,1	5,82	530,27
776			88,8	4,55	408,22
777			90,7	5,13	394,34
778			92,6	4,45	392,23
779			88,8	4,65	400,30
780			76,5	3,94	395,33
781			90,8	5,11	452,38
782			87,7	4,33	374,29
783			91,5	5,35	434,38

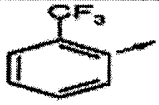
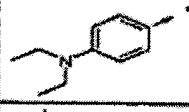
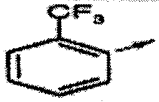
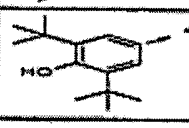
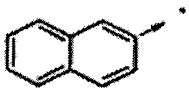
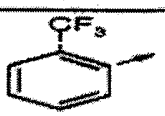
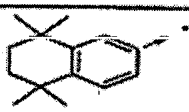
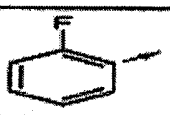
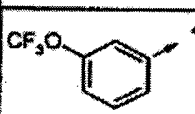
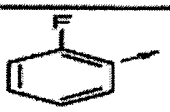
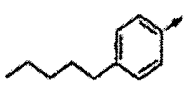
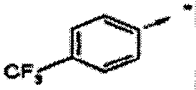
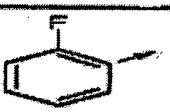
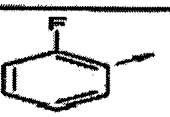
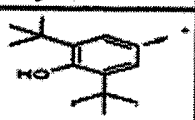
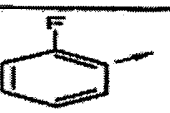
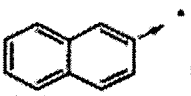
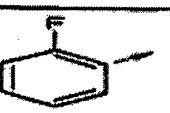
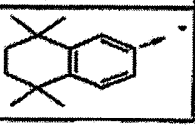
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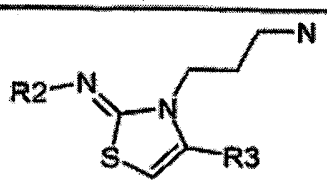
Př.	R2	R3	Čistota(%)	Ret. (min)	[M+H]+
784			92,1	4,61	424,25
785			89,3	5,28	410,33
786			95	4,49	408,22
787			82,4	4,74	416,27
788			73,8	3,95	411,30
789			92,9	5,27	468,36
790			84,9	4,39	390,28
791			91,5	5,53	450,37
792			90	5,5	462,19
793			93,9	6,25	448,31
794			94,9	5,41	446,22
795			93,5	5,76	454,26

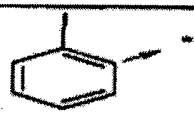
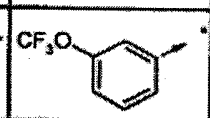
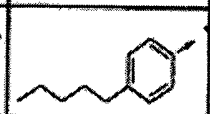
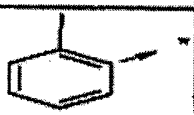
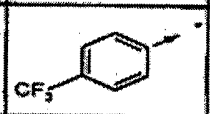
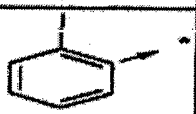
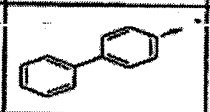
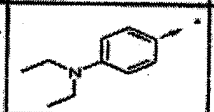
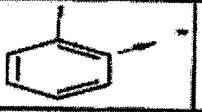
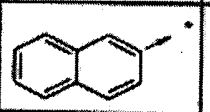
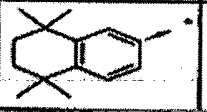
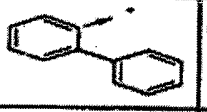
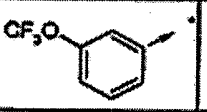
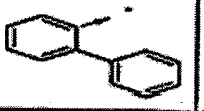
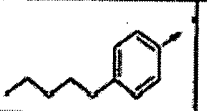
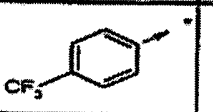
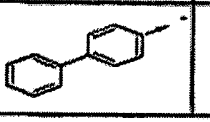
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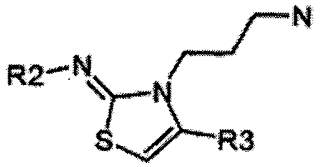
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
796			89,8	4,95	449,30
797			92,4	6,22	506,34
798			93	5,52	428,245
799			92,8	6,39	488,34
800			87,6	5,11	412,20
801			92,5	5,9	398,30
802			93,5	5	396,20
803			92,2	5,35	404,26
804			90,7	4,41	399,28
805			94,2	5,87	456,34
806			89,3	5,05	378,23
807			90,9	6,07	438,33

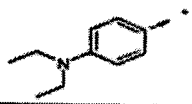
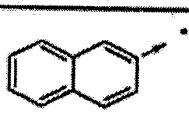
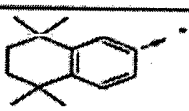
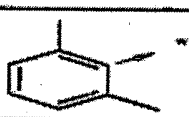
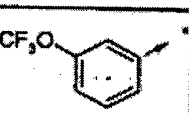
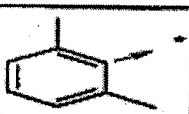
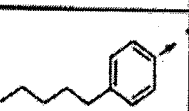
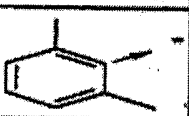
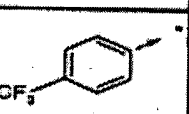
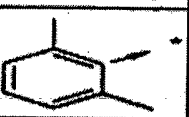
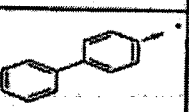
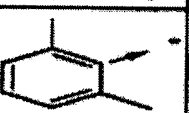
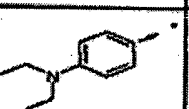
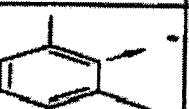
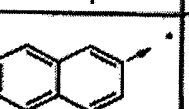
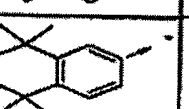
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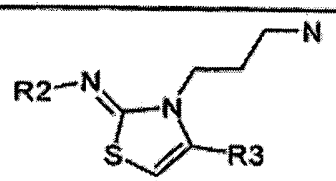
Pf.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
808			88,8	5,43	520,09
809			94	6,19	506,19
810			95,9	5,33	504,12
811			92,9	5,68	512,15
812			88,9	4,8	507,18
813			92,3	6,17	564,20
814			93,9	5,41	486,14
815			93,6	6,35	546,18
816			91,9	5,41	470,25
817			93	5,98	456,34
818			91,4	5,29	454,24
819			90,4	5,49	462,29

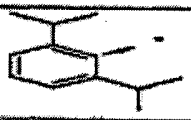
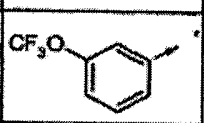
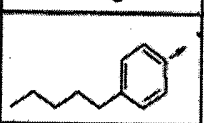
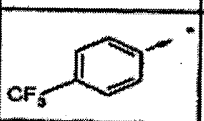
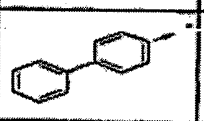
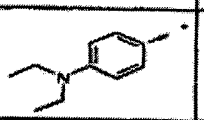
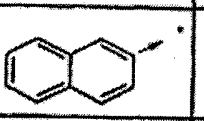
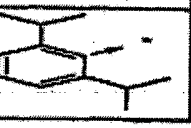
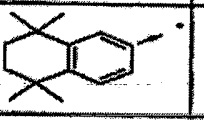
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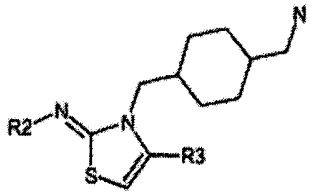
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
820			86,5	4,75	457,34
821			90,5	5,94	514,34
822			90,1	5,21	436,26
823			89,7	6,18	496,37
824			79,4	4,56	422,22
825			92,5	5,08	408,32
826			93	4,45	406,23
827			90,2	4,63	414,26
828			76,3	4,01	409,31
829			94	5,08	466,36
830			90,7	4,34	388,25
831			92,9	5,29	448,36

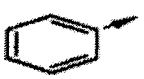
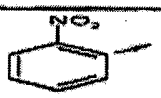
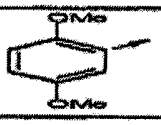
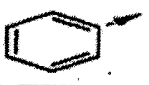
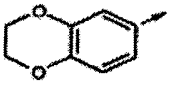
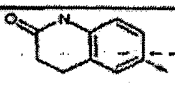
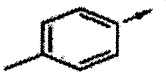
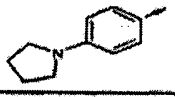
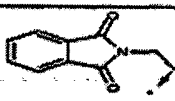
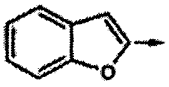
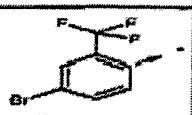
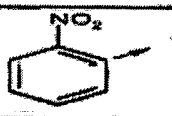
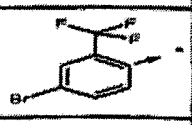
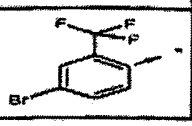
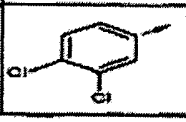
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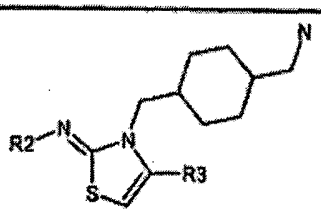
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
832			56	5,3	478,29
833			83,9	5,7	464,38
834			82,1	5,19	462,29
835			80,5	5,31	470,35
836			70,6	4,8	465,39
837			82,9	5,67	522,41
838			81	5,07	444,33
839			83,5	5,91	504,41

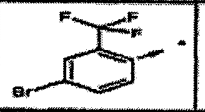
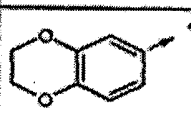
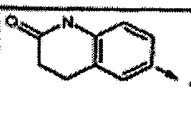
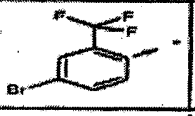
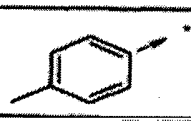
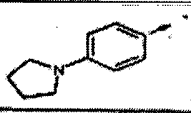
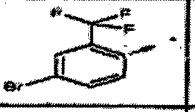
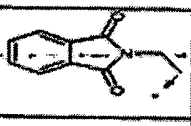
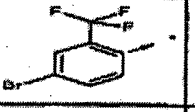
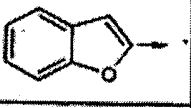
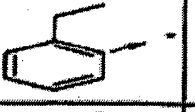
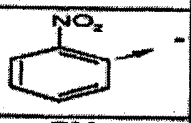
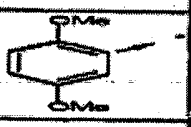
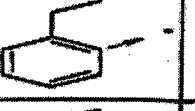
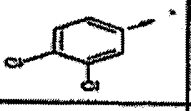
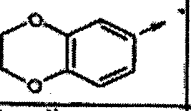
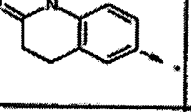
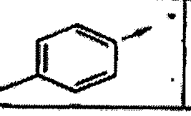
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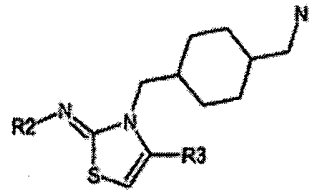


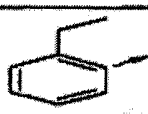
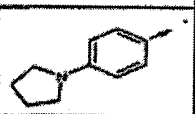
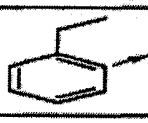
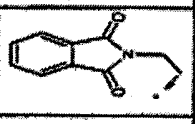
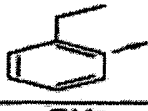
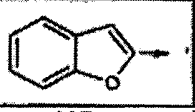
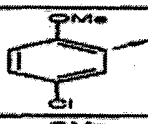
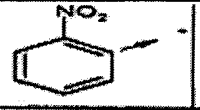
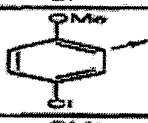
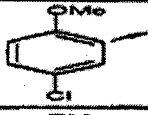
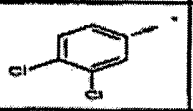
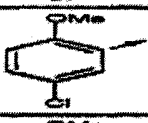
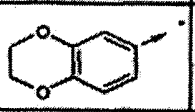
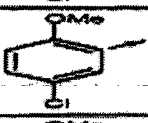
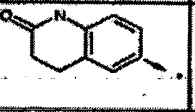
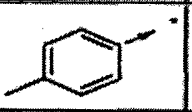
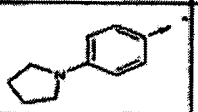
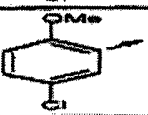
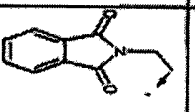
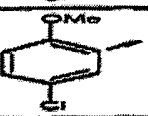
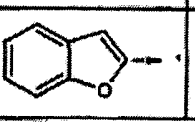
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
840			35 + 64	3,68 + 3,78	423,2
841			98	3,7	438,3
842			35 + 63	4,3 + 4,4	446,2
843			97	3,71	436,3
844			32 + 65	3,28 + 3,34	447,3
845			96	3,84	392,3
846			96	4,18	447,3
847			30 + 64	3,62 + 3,64	475,3
848			36 + 61	4,46 + 4,61	418,3
849			96	5,89	569,1
850			94	6,09	584,2
851			57 + 39	6,55 + 6,6	592,1

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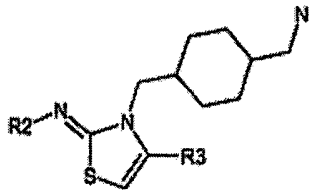


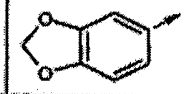
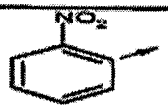
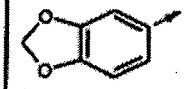
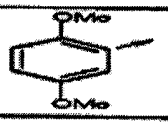
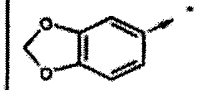
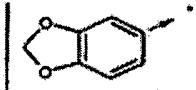
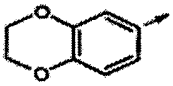
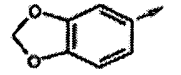
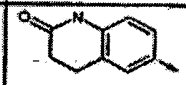
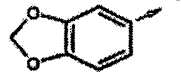
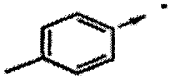
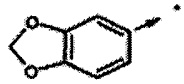
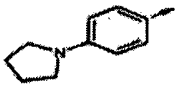
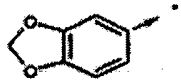
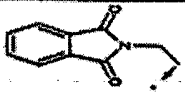
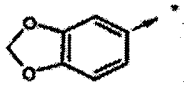
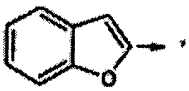
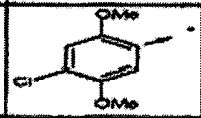
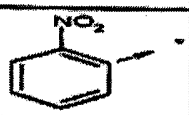
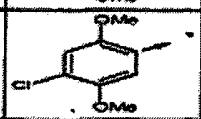
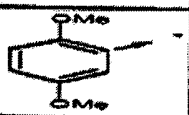
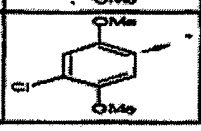
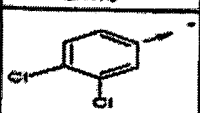
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
852			96	6,16	582,2
853			28 + 59	5,53 + 5,61	593,2
854			95	6,35	538,2
855			54 + 41	6,8 + 6,88	593,3
856			94	5,96	621,2
857			56 + 39	6,46 + 6,55	564,2
858			34 + 63	4,09 + 4,2	451,3
859			96	4,03	466,4
860			33 + 64	4,69 + 4,76	474,3
861			27 + 70	4,04 + 4,07	464,4
862			33 + 63	3,63 + 3,71	475,4
863			95	4,18	420,4

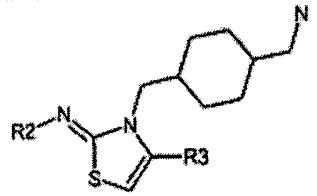


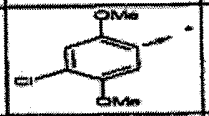
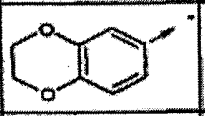
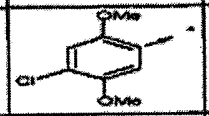
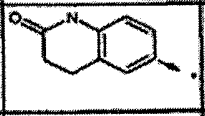
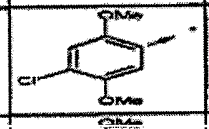
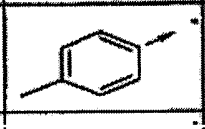
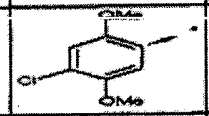
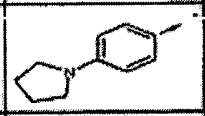
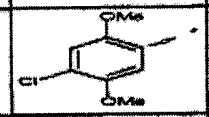
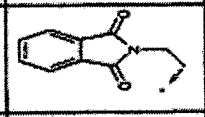
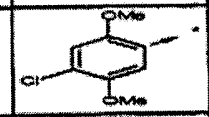
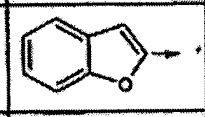
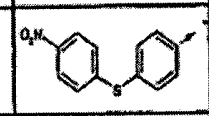
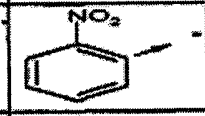
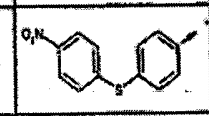
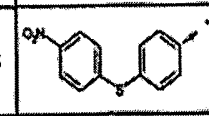
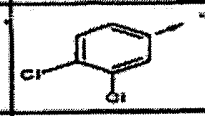
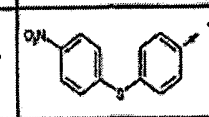
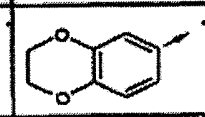
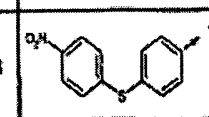
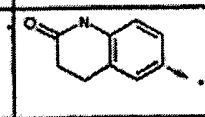
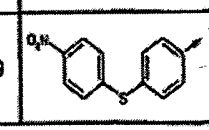
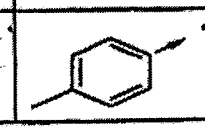
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
864			89	4,46	475,4
865			22 + 68	3,94 + 3,98	503,4
866			35 + 62	4,9 + 5,01	446,4
867			35 + 61	4,39 + 4,52	487,3
868			33 + 63	4,22 + 4,29	502,3
869			35 + 62	5,08 + 5,2	510,2
870			31 + 63	4,26 + 4,34	500,3
871			33 + 62	3,82 + 3,91	511,3
872			31 + 62	4,42 + 4,51	456,3
873			29 + 64	4,66 + 4,72	511,4
874			33 + 57	4,11 + 4,2	539,3
875			35 + 62	5,26 + 5,39	482,3

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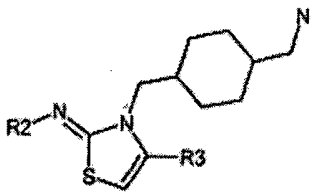


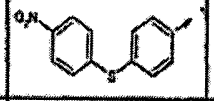
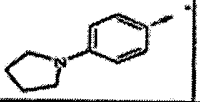
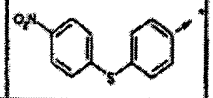
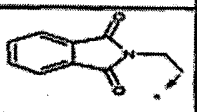
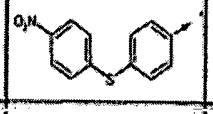
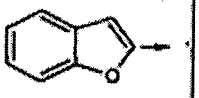
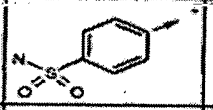
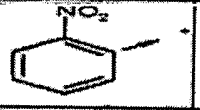
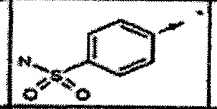
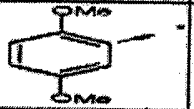
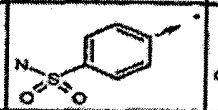
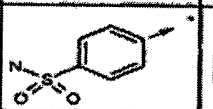
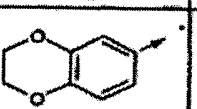
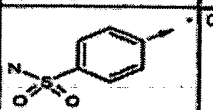
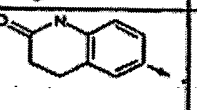
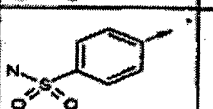
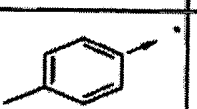
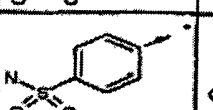
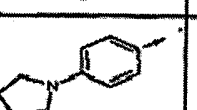
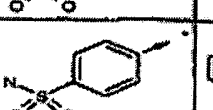
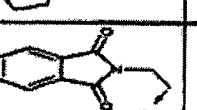
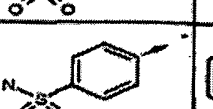
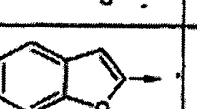
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
876			32 + 65	3,63 + 3,7	467,3
877			97	3,69	482,4
878			35 + 62	4,2 + 4,28	490,3
879			94	3,69	480,3
880			28 + 68	3,3 + 3,33	491,3
881			96	3,8	436,3
882			96	4,18	491,4
883			94	3,63	519,3
884			36 + 61	4,28 + 4,42	462,3
885			36 + 62	4,24 + 4,36	517,3
886			28 + 69	4,15 + 4,21	532,3
887			35 + 62	4,84 + 4,96	540,2

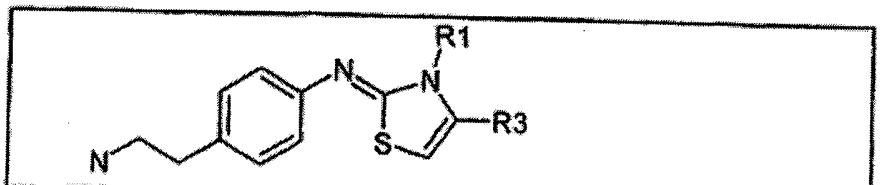


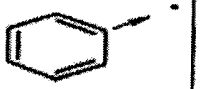
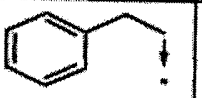
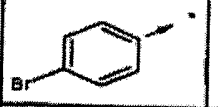
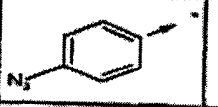
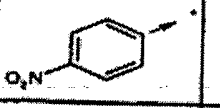
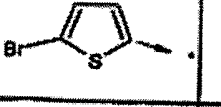
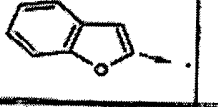
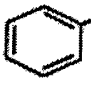
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
888			33 + 64	4,15 + 4,22	530,3
889			32 + 63	3,76 + 3,84	541,3
890			32 + 63	4,28 + 4,36	486,3
891			24 + 73	4,56 + 4,6	541,3
892			31 + 59	4,05 + 4,11	569,3
893			35 + 61	4,99 + 5,14	512,3
894			33 + 64	5,59 + 5,7	576,3
895			35 + 61	5,29 + 5,39	591,3
896			26 + 71	6,32 + 6,35	599,2
897			34 + 63	5,41 + 5,5	589,3
898			35 + 61	4,88 + 4,99	600,3
899			35 + 62	5,63 + 5,72	545,3

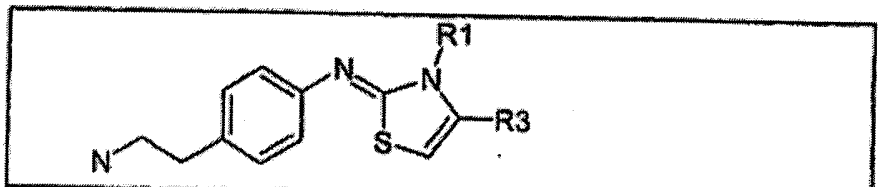
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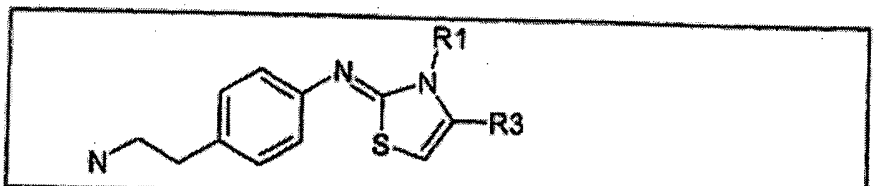
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
900			34 + 61	5,76 + 5,86	600,3
901			34 + 68	5,16 + 5,28	628,3
902			98	6,45	571,3
903			35 + 60	3,84 + 3,93	502,3
904			32 + 62	3,72 + 3,79	517,3
905			32 + 62	4,59 + 4,68	525,2
906			33 + 61	3,75 + 3,82	515,3
907			29 + 64	3,18 + 3,26	526,3
908			32 + 59	4 + 4,09	471,3
909			32 + 60	4,28 + 4,36	526,3
910			34 + 56	3,62 + 3,71	554,3
911			31 + 63	4,58 + 4,66	497,3

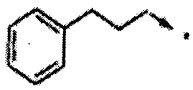
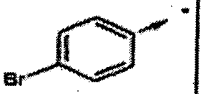
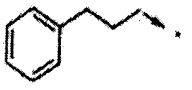
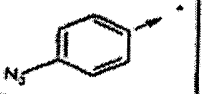
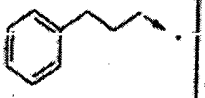
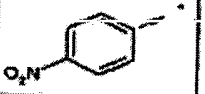
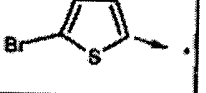
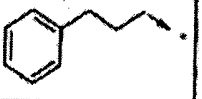
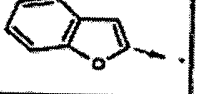
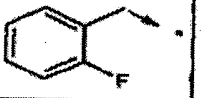
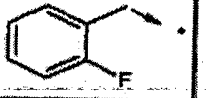
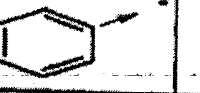
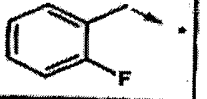
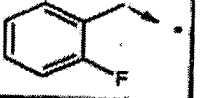
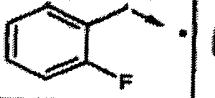
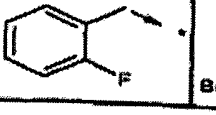
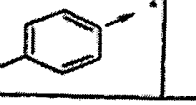


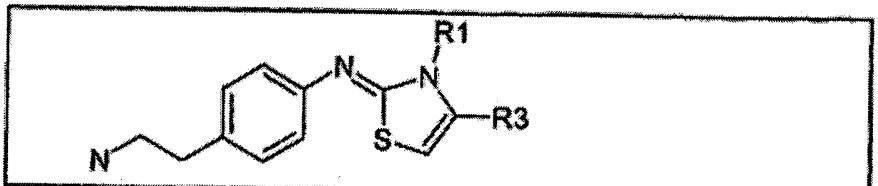
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
912			6,8 + 91,2	3,6 + 3,76	332,22
913			88,1	3,94	352,19
914			89,6	4,22	380,22
915			61,6	3,95	382,17
916			83,5	3,8	377,19
917			84,2	4,41	430,10
918			70,9	4,24	393,18
919			84,1	4,1	397,16
920			82,2	4,55	436,05
921			82,8	4,66	392,17
922			98	4,25	380,22
923			91,1	4,26	400,17

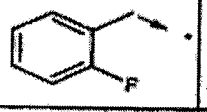
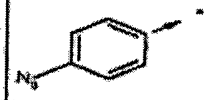
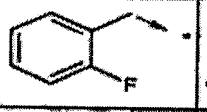
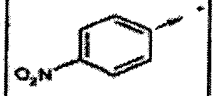
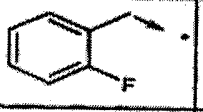
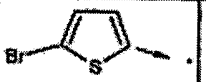
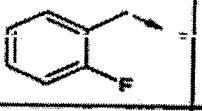
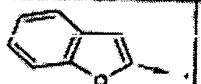
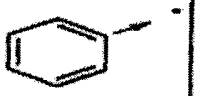
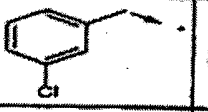
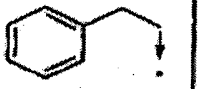
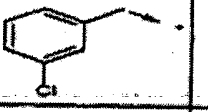
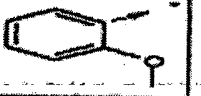
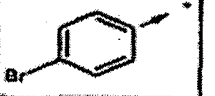
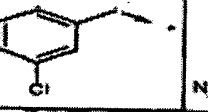
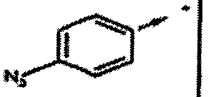
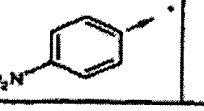


Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
924			92,4	4,46	428,21
925			93,8	4,23	430,20
926			86,4	4,14	425,17
927			92,3	4,7	478,11
928			82	4,56	441,18
929			90,9	4,44	445,18
930			89,8	4,9	484,07
931			86,4	5,0	440,17
932			97,2	4,38	394,22
933			86,3	4,48	414,18
934			92,6	4,68	442,22
935			91	4,44	444,22

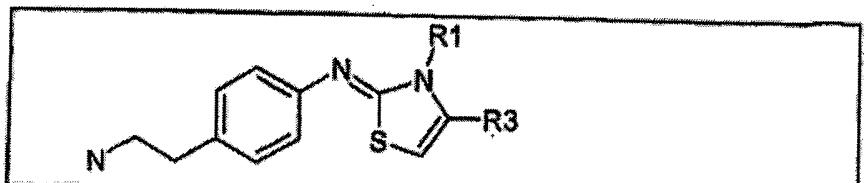


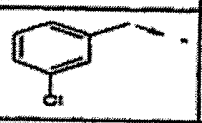
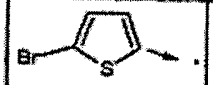
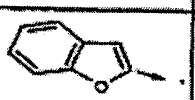
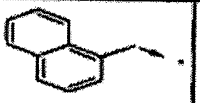
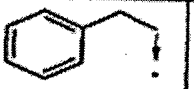
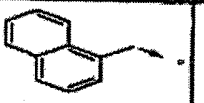
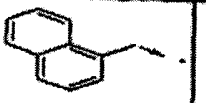
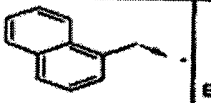
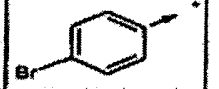
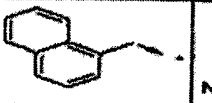
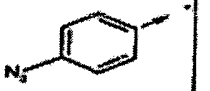
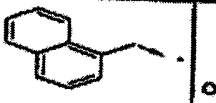
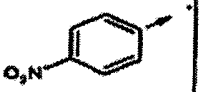
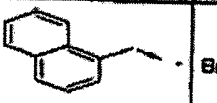
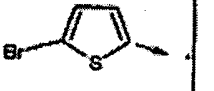
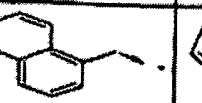
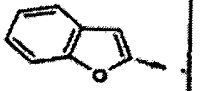
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
936			85,9	4,34	439,18
937			88,2	4,86	492,12
938			83,6	4,71	455,2
939			87,8	4,59	459,19
940			89,8	5,0	498,09
941			83,9	5,14	454,20
942			87,7	4,26	384,17
943			94,7	4,5	404,15
944			18,6 + 76,4	4,2 + 4,64	432,18
945			95,2	4,32	434,16
946			92	4,46	429,15
947			94,4	5,08	482,06



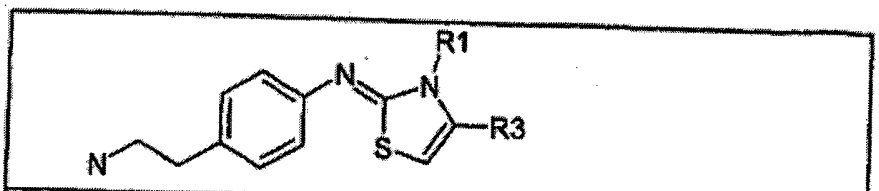
Pr.	R1	R3	Čistota(%)	Ret.(min)	[M+H]⁺
948			93	4,86	445,16
949			94,2	4,82	449,13
950			93,1	5,34	488,03
951			93,7	5,47	444,16
952			91,5	4,43	400,13
953			95	4,82	420,12
954			14,8 + 81,2	4,38 + 4,88	448,15
955			95,8	4,64	450,13
956			95	4,79	445,11
957			95,4	5,4	498,06
958			93,9	5,14	461,12
959			94,5	5,12	465,10

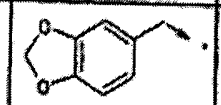
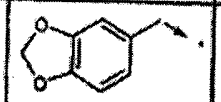
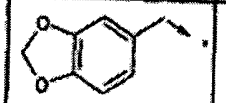
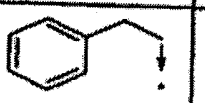
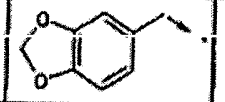
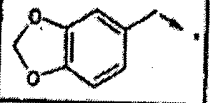
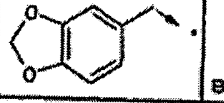
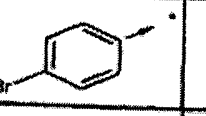
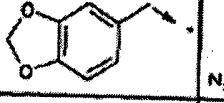
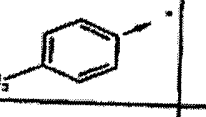
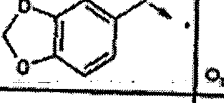
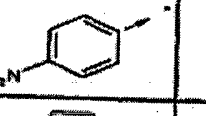
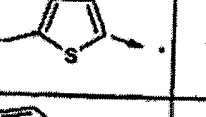
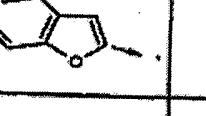
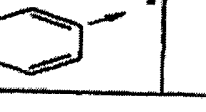
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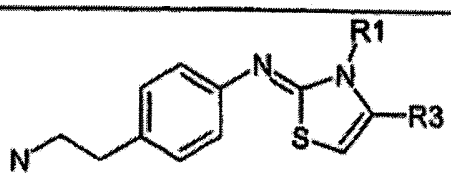
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
960			94,6	5,62	504,00
961			96,4	5,74	460,13
962			6,5 + 87,5	4,2 + 4,54	416,19
963			92,9	4,76	436,17
964			17,3 + 6,2	4,5 + 4,9	464,21
965			92,6	4,64	466,17
966			89	4,76	461,16
967			94,1	5,32	514,09
968			92,1	5,09	477,19
969			90,5	5,1	481,16
970			92	5,56	520,02
971			93	5,72	476,17

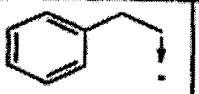
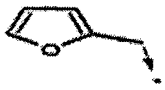
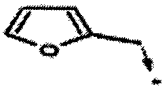
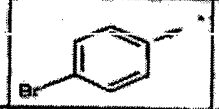
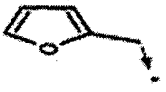
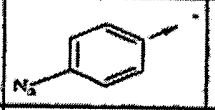
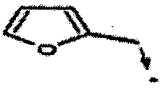
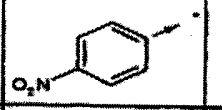
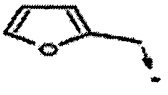
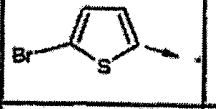
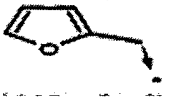
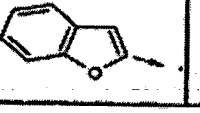
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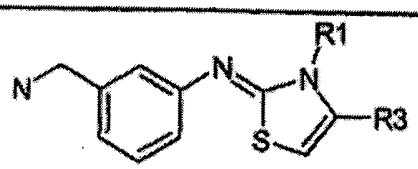
Pr.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
972			91,6	4	410,16
973			89,7	4,28	430,15
974			83,4	4,46	458,19
975			96,9	4,19	460,16
976			58,2	4,29	455,12
977			81,4	4,84	508,06
978			85,8	4,64	471,15
979			46,8	4,62	475,14
980			77,4	5,06	514,02
981			61,7	5,24	470,16
982			4,8	3,54	356,15
983			71,4	4,1	376,14

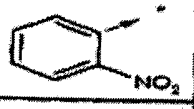
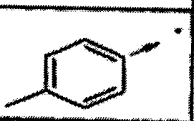
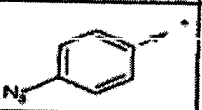
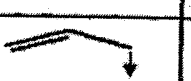
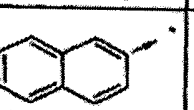
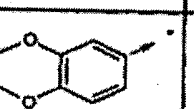
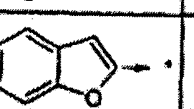
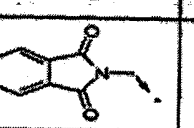
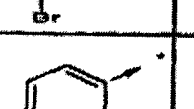
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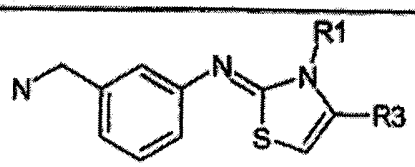
Př.	R1	R3	Čistota(%)	RetL(min)	$[M+H]^+$
984			79	4,3	404,17
985			88,3	4,0	406,13
986			12,2	5,32	401,11
987			46,5	4,72	454,04
988			56,3	4,49	417,15
989			13,8	5,52	421,12
990			35,3	4,95	460,02
991			9,1	5,71	416,11

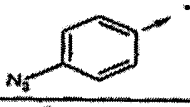
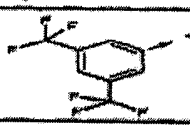
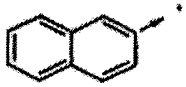
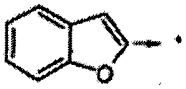
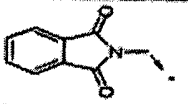
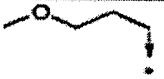
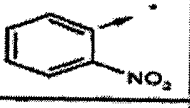
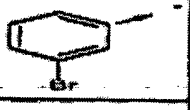
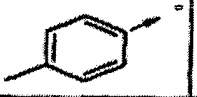
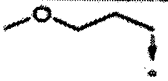
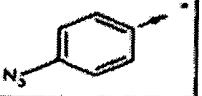
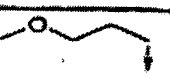
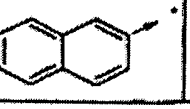
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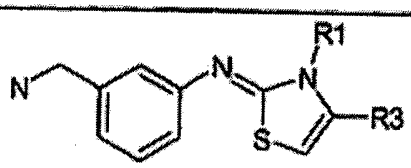
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
992			95,3	3,33	367,12
993			91,9	3,97	400,03
994			92,5	3,64	336,17
995			83,7	3,75	363,13
996			94,7	4,88	458,11
997			93,1	4,03	372,14
998			92,6	3,37	380,14
999			92,1	4,36	362,12
1000			91	3,32	405,11
1001			87,8	3,9	397,14
1002			64,2	4,46	430,09
1003			61,6	4,18	366,23

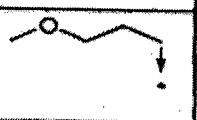
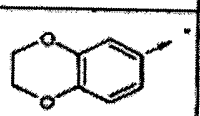
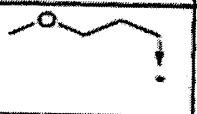
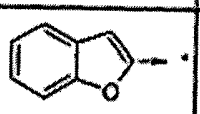
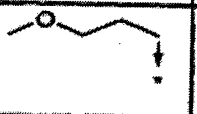
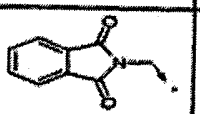
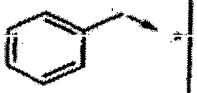
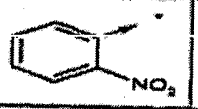
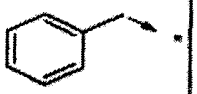
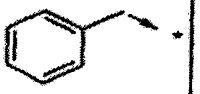
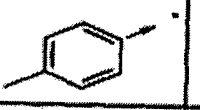
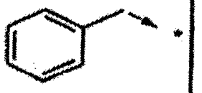
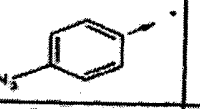
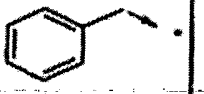
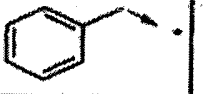
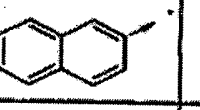
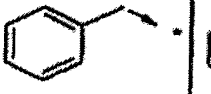
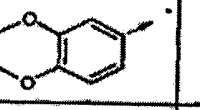
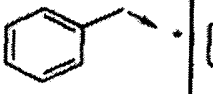
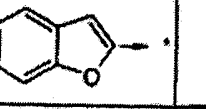
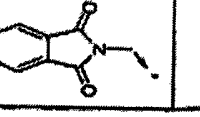
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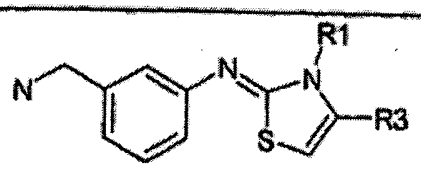


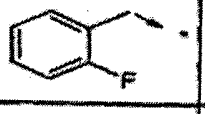
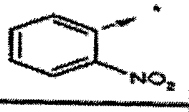
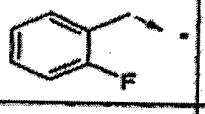
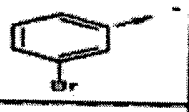
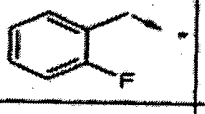
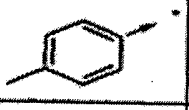
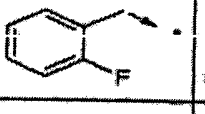
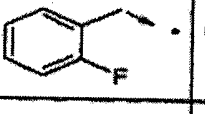
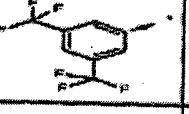
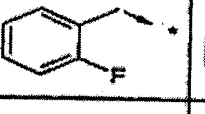
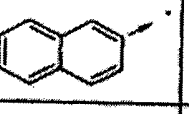
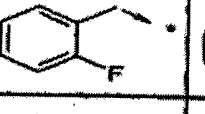
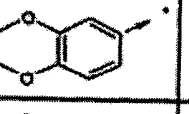
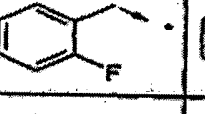
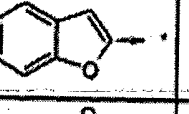
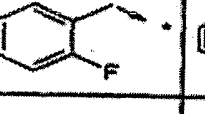
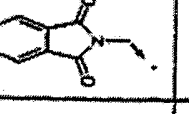
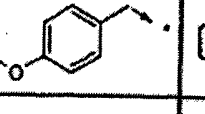
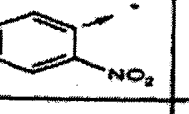
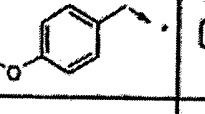
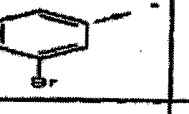
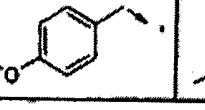
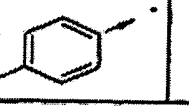
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1004			45,6	4,26	393,16
1005			72,4	5,28	488,17
1006			67	4,47	402,17
1007			51,1	3,86	410,16
1008			57,6	4,86	392,16
1009			75,1	3,92	435,16
1010			90,7	3,24	399,13
1011			79,6	3,79	432,06
1012			74,5	3,55	368,16
1013			58,8	3,62	395,15
1014			81	4,65	490,15
1015			86,8	3,88	404,17

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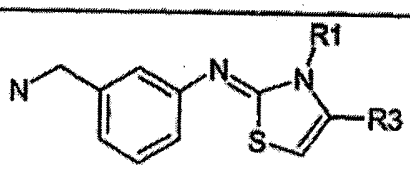


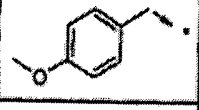
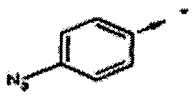
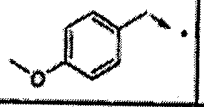
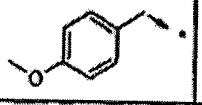
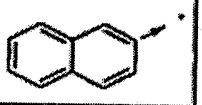
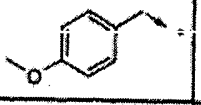
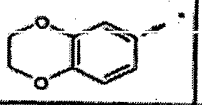
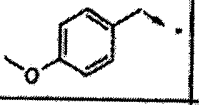
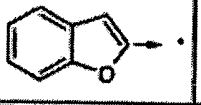
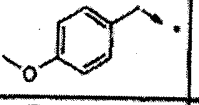
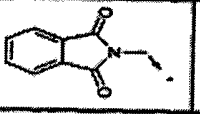
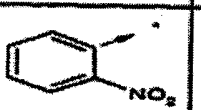
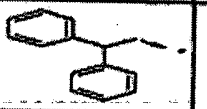
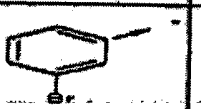
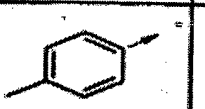
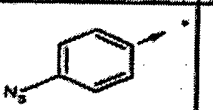
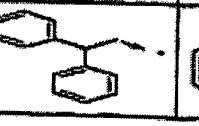
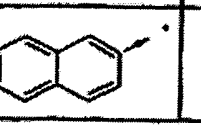
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1016			71,4	3,3	412,13
1017			73,7	4,13	394,15
1018			80,5	3,3	437,15
1019			94,6	4,19	417,10
1020			94,8	4,76	450,07
1021			92,9	4,42	386,13
1022			88,8	4,56	413,11
1023			94,1	5,48	508,13
1024			93,8	4,79	422,13
1025			92,3	4,04	430,15
1026			90	5,08	412,10
1027			93,2	3,95	455,13

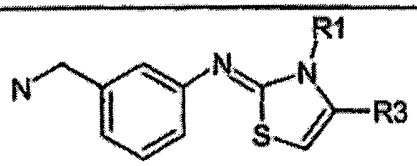


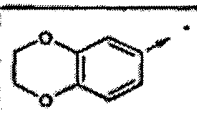
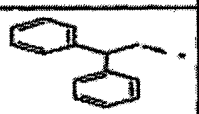
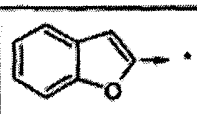
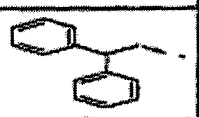
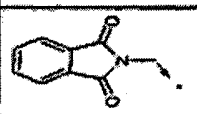
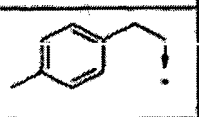
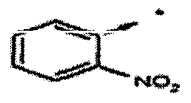
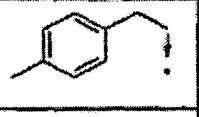
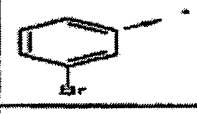
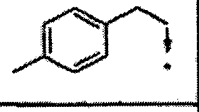
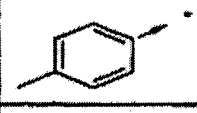
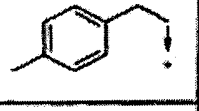
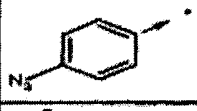
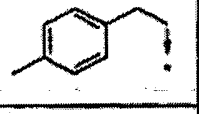
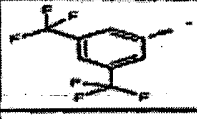
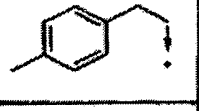
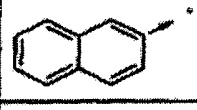
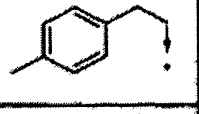
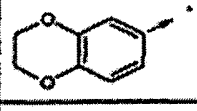
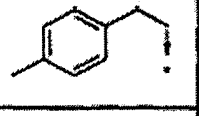
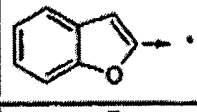
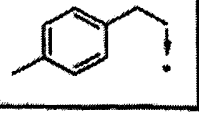
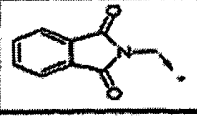
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1028			92,6	4,3	435,1
1029			92,8	4,9	470,1
1030			89,2	4,6	404,1
1031			89,2	4,76	431,1
1032			94,3	5,6	526,1
1033			93,5	5	440,2
1034			92,4	4,2	448,1
1035			87,9	5,2	430,1
1036			93,6	4,1	473,2
1037			80,4	4,16	447,14
1038			72,7	4,72	480,08
1039			77	4,39	416,14

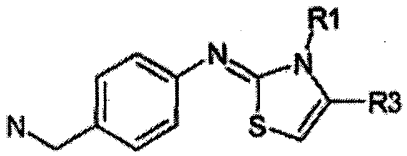
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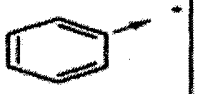
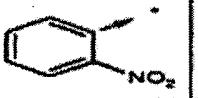
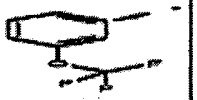
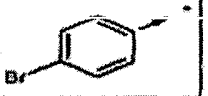
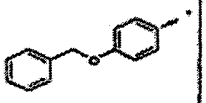
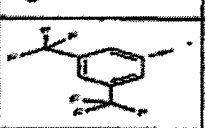
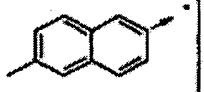
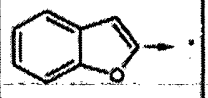
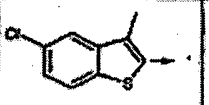
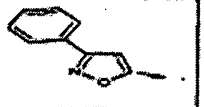
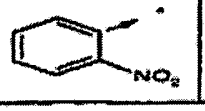


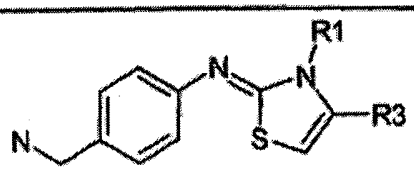
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1040			59,2	4,5	443,16
1041			16,8	5,98	538,12
1042			59,5	4,74	452,16
1043			74	4,02	460,16
1044			26,3	5,52	442,13
1045			91	3,82	485,17
1046			89,8	5,09	507,19
1047			84,5	5,52	540,09
1048			86	5,06	476,21
1049			75,6	5,22	503,21
1050			90,3	6,14	598,15
1051			86,9	5,38	512,22

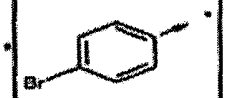
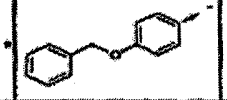
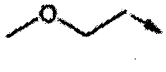
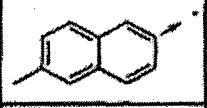
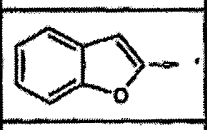
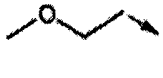
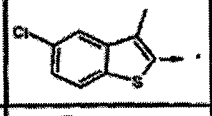
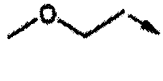
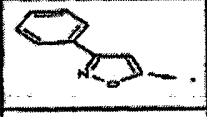
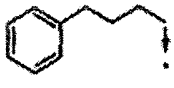
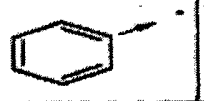
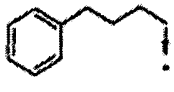
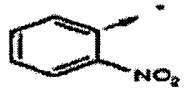
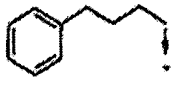
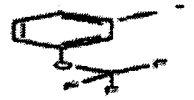
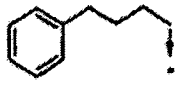
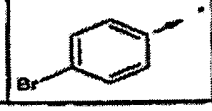


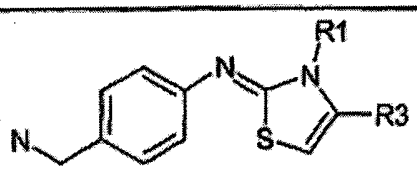
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]⁺
1052			81,3	4,68	520,19
1053			83,3	5,66	502,20
1054			82	4,92	545,17
1055			93,1	4,34	445,16
1056			81,5	4,77	478,10
1057			79,9	4,46	414,17
1058			70,2	4,56	441,15
1059			85,8	5,56	536,11
1060			84,1	4,73	450,19
1061			78,4	4,12	458,20
1062			83,3	5,13	440,16
1063			83,1	4,22	

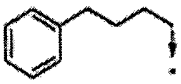
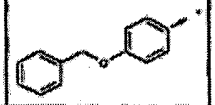
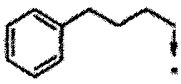
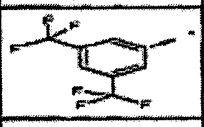
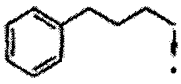
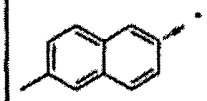
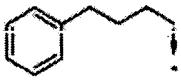
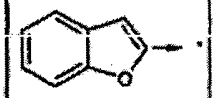
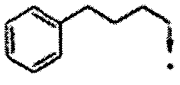
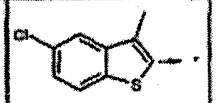
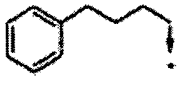
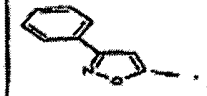
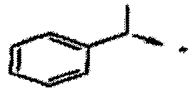
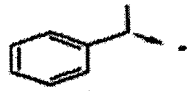
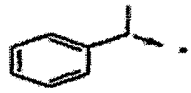
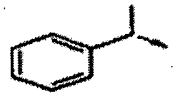
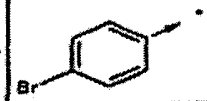
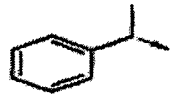
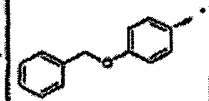
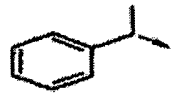
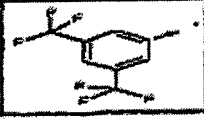


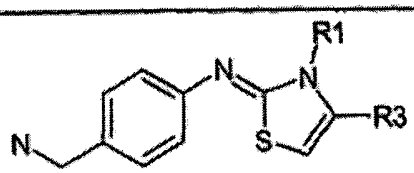
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1064			86,6	3,52	338,12
1065			90,4	3,44	383,09
1066			87,3	4,25	422,10
1067			85,9	4,04	416,04
1068			70,5	4,4	444,18
1069			80,1	4,83	474,13
1070			80,6	4,34	402,16
1071			80,8	4,37	378,14
1072			86,5	4,77	442,06
1073			83,4	4,72	405,12
1074			90,5	3,02	340,15
1075			93,5	2,98	385,10

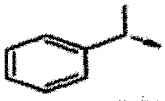
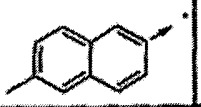
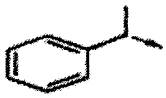
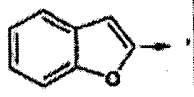
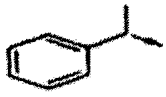
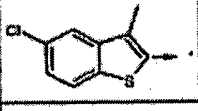
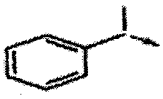
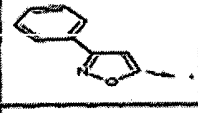
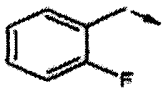
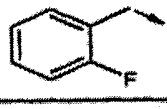
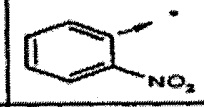
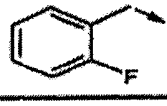
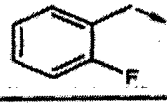
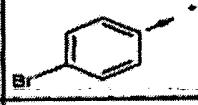
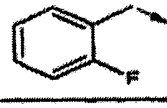
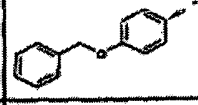
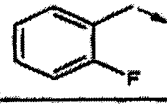
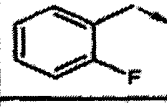
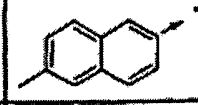
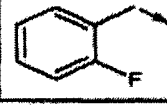
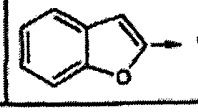


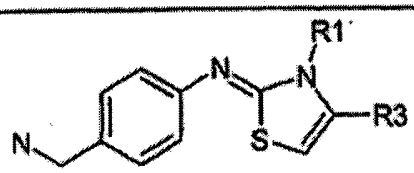
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1076			91,7	3,9	424,12
1077			90,8	3,62	418,04
1078			80,8	4,09	446,18
1079			88,1	4,6	476,12
1080			91,5	3,98	404,16
1081			89,2	3,87	380,13
1082			87,3	4,36	444,10
1083			90,6	4,24	407,13
1084			86,4	4,24	414,15
1085			91,8	4,21	459,17
1086			88,2	4,89	498,19
1087			85,8	4,71	492,12

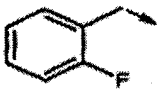
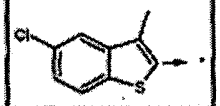
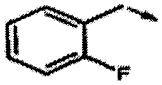
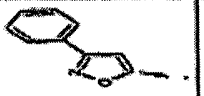
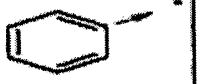
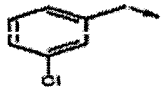
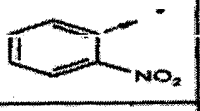
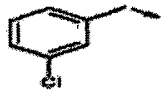
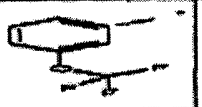
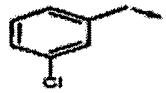
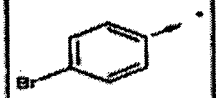
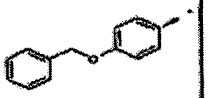
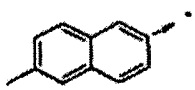
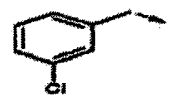
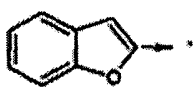
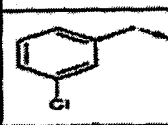
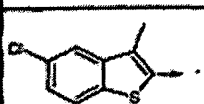
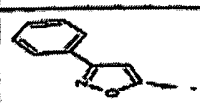


Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1088			76,1	4,9	520,21
1089			83,3	5,45	550,17
1090			84,9	4,9	478,24
1091			86,1	5,08	454,19
1092			78	5,38	518,14
1093			84,5	5,38	481,21
1094			37,5	3,36	386,14
1095			57,1	3,35	431,14
1096			44	3,78	470,17
1097			42	3,62	464,09
1098			38,8	4,14	492,21
1099			45,2	3,98	522,14

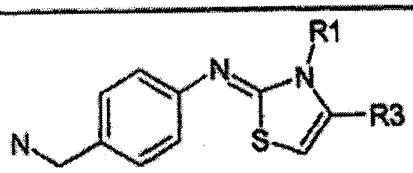


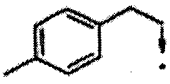
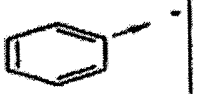
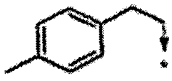
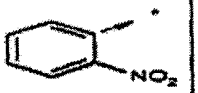
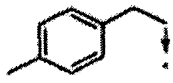
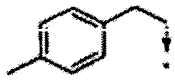
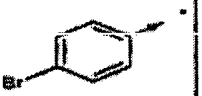
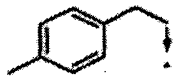
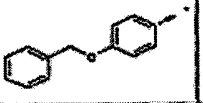
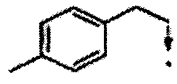
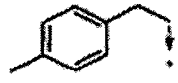
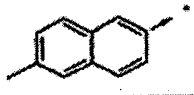
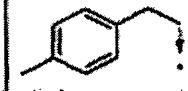
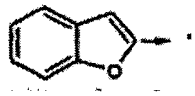
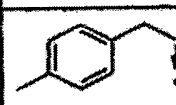
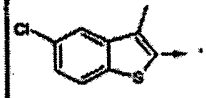
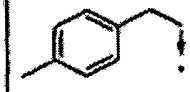
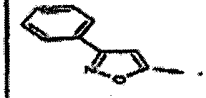
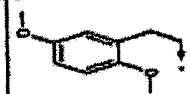
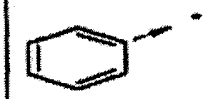
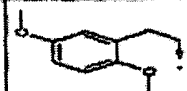
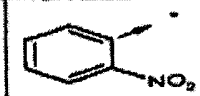
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1100			33,4	3,99	450,20
1101			44,7	3,68	426,14
1102			33,4	4,08	490,12
1103			42,4	3,67	453,17
1104			92,6	4,23	390,14
1105			91,9	4,1	439,1
1106			92,1	5	474,13
1107			93	4,85	468,04
1108			86,5	5,04	496,18
1109			92,8	5,5	526,13
1110			92,8	5,1	454,17
1111			92	5,1	430,10



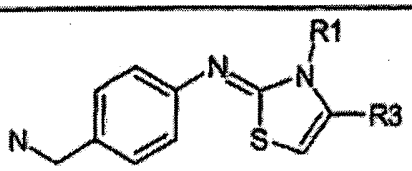
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]⁺
1112			92,8	5,48	494,08
1113			92,8	5,1	457,18
1114			93,8	4,6	406,10
1115			93,6	4,5	451,03
1116			93,1	5,2	490,10
1117			94,5	5,1	483,99
1118			89,54	5,29	512,13
1119			95,2	5,6	542,1
1120			92,8	5,38	470,15
1121			93,4	5,3	445,94
1122			94,7	5,7	510,05
1123			94,3	5,3	473,04

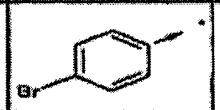
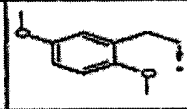
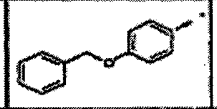
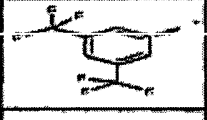
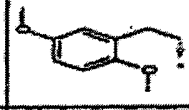
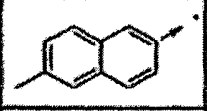
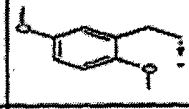
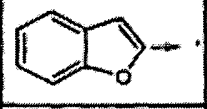
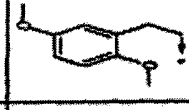
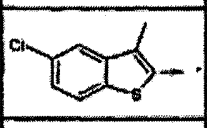
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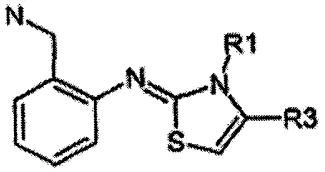


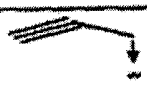
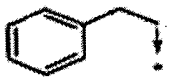
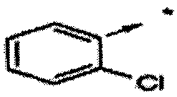
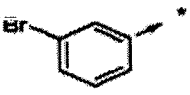
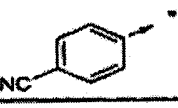
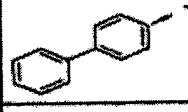
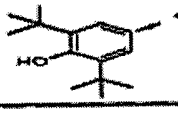
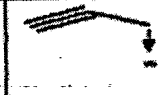
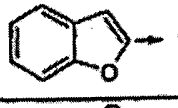
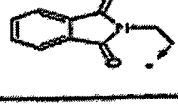
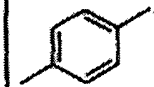
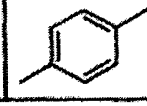
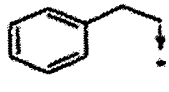
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1124			89,5	4,06	400,12
1125			92,1	4,13	445,13
1126			88,9	4,81	484,15
1127			88,8	4,56	478,09
1128			82,4	4,76	506,20
1129			88,6	5,36	536,12
1130			85,7	4,78	464,18
1131			84	4,94	440,15
1132			64,3	5,38	504,10
1133			88,4	5,16	467,17
1134			82,7	3,76	446,16
1135			89	3,77	491,14

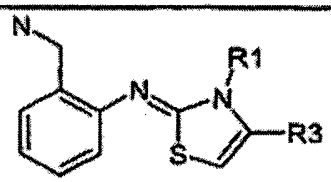
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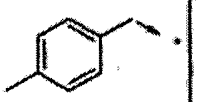
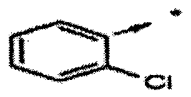
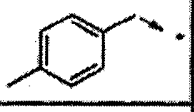
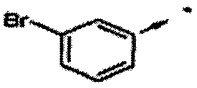
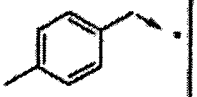
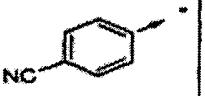
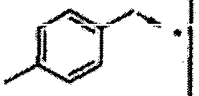
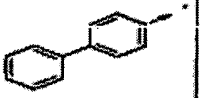
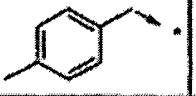
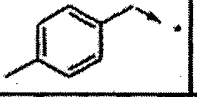
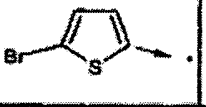
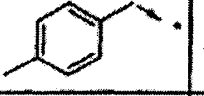
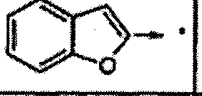
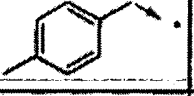
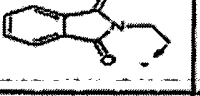
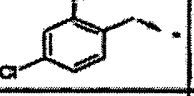
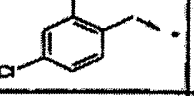
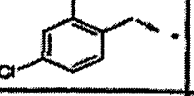
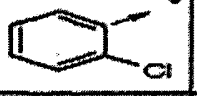
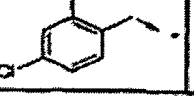
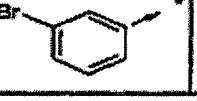


Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1136			87,1	4,4	530,13
1137			84,6	4,21	524,08
1138			76	4,52	552,19
1139			85,6	4,98	582,12
1140			83,1	4,44	510,21
1141			88,3	4,6	486,19
1142			1,5	5,07	550,12
1143			84	4,75	513,16

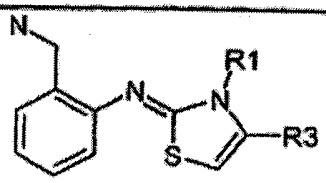


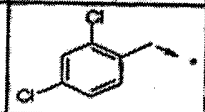
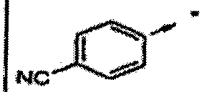
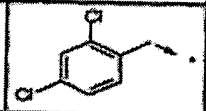
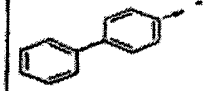
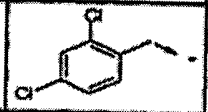
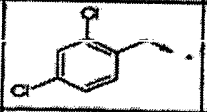
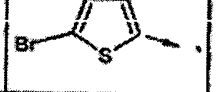
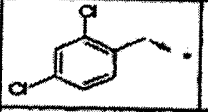
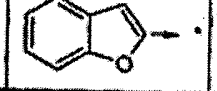
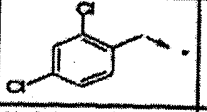
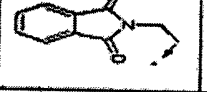
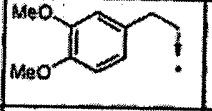
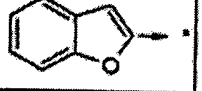
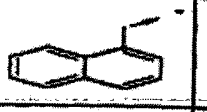
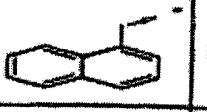
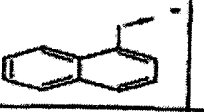
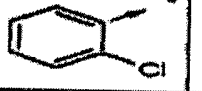
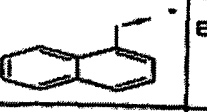
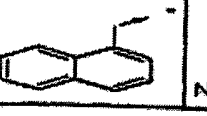
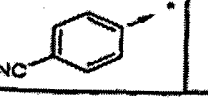
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1144			75	4,48	300,16
1145			82	4,89	348,16
1146			86,7	4,72	354,09
1147			89	4,96	398,01
1148			87	4,37	345,18
1149			90	5,4	396,1
1150			89	5,9	448,2
1151			85	5	404
1152			85	4,96	360,10
1153			91	4,39	417,14
1154			95	5,14	366,21
1155			92	5,52	414,17



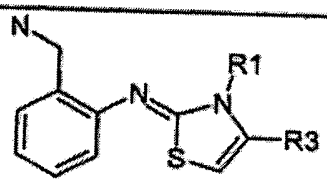
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1156			95	5,37	420,13
1157			93	5,6	464,08
1158			94	5	411,2
1159			91	6,04	462,19
1160			91,5	6,4	514,2
1161			92,6	5,7	470,1
1162			93,8	5,6	426,14
1163			91,4	5,02	483,21
1164			96,3	5,55	420,10
1165			78,2	5,81	466,10
1166			96,7	5,6	474,06
1167			96,9	5,8	517,97

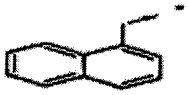
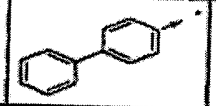
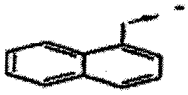
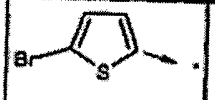
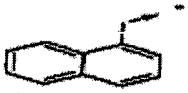
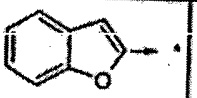
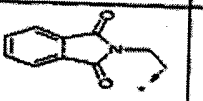
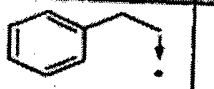
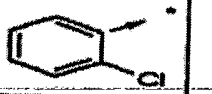
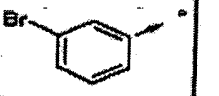
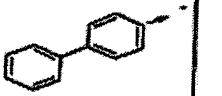
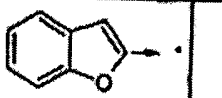
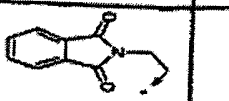
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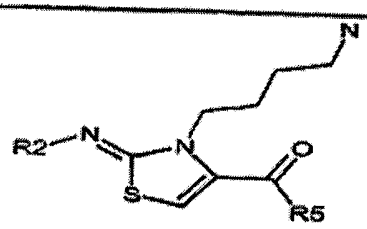


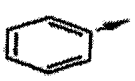
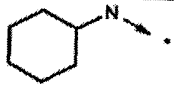
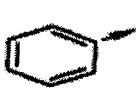
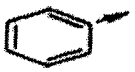
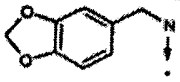
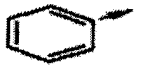
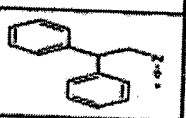
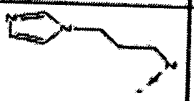
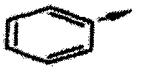
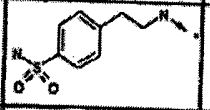
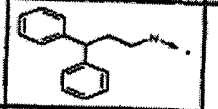
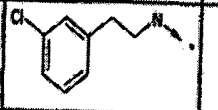
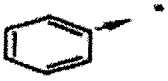
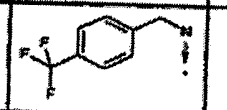
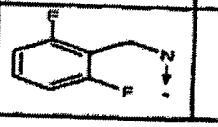
Př.	R1	R3	Čistota(%)	Ret.(min)	[M+H]+
1168			94,2	5,18	465,06
1169			94	6,25	516,10
1170			96,4	6,52	568,2
1171			94,6	5,9	524,0
1172			94,9	5,81	480,07
1173			91,9	5,25	537,09
1174			77,4	5,24	486,16
1175			96,8	5,36	402,15
1176			92,4	5,66	450,19
1177			93,3	5,48	456,12
1178			93,3	5,7	500,08
1179			90,7	5,12	447,15

23.01.04

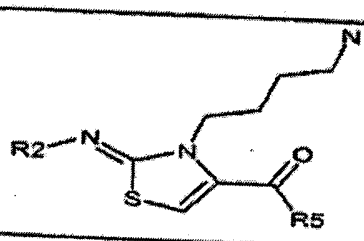


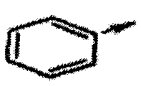
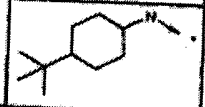
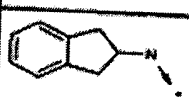
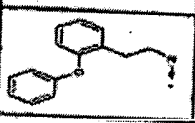
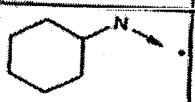
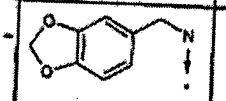
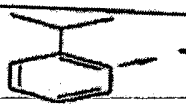
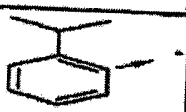
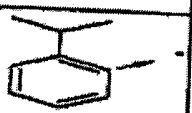
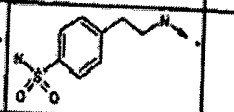
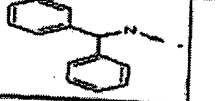
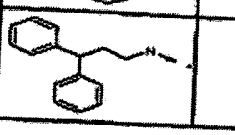
Př.	R1	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
1180			91,9	6,12	498,21
1181			95,1	6,5	550,3
1182			92,8	5,7	506,0
1183			94,9	5,74	462,15
1184			91,4	5,13	519,17
1185			73,6	3,52	346,19
1186			71,5	4,5	394,17
1187			82,2	4,58	400,10
1188			78,6	4,86	444,09
1189			70,5	5,3	442,17
1190			76,8	5	406,13
1191			80,5	4,1	463,19

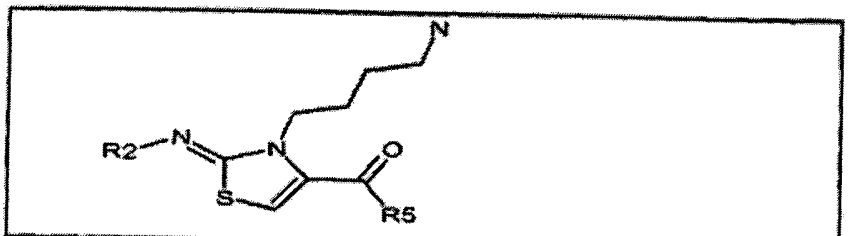


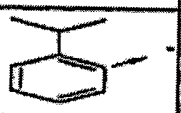
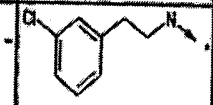
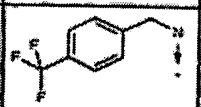
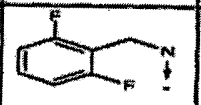
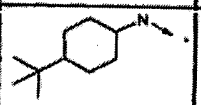
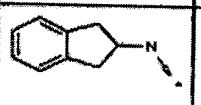
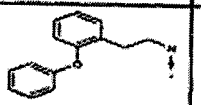
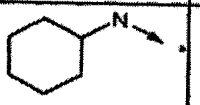
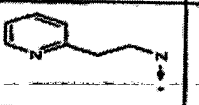
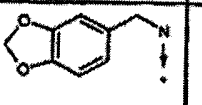
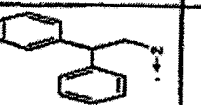
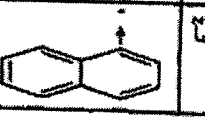
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1192			28,3	3,61	373,15
1193			64,3	2,55	396,15
1194			66,8	3,58	425,13
1195			51,9	3,47	387,07
1196			75,8	4,43	471,21
1197			66,4	2,38	399,15
1198			42,6	3,11	474,14
1199			45,3	4,39	457,18
1200			64	4,62	485,21
1201			55,1	4,09	429,12
1202			75	4,22	449,13
1203			67,9	3,64	417,11

23.01.04

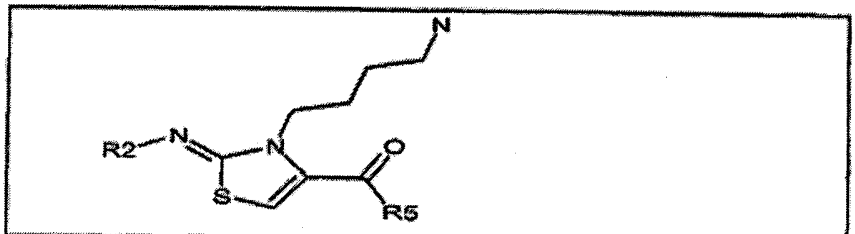


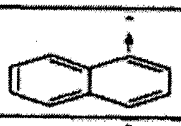
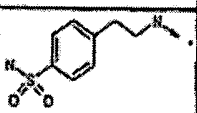
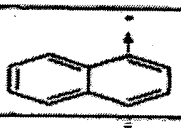
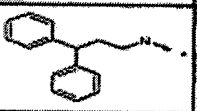
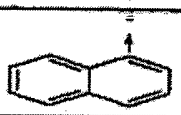
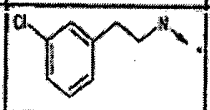
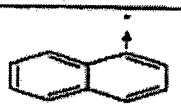
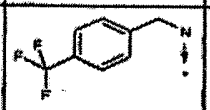
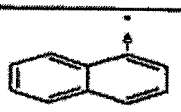
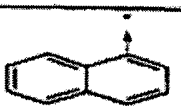
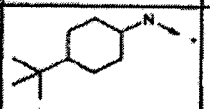
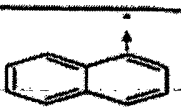
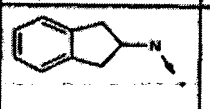
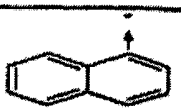
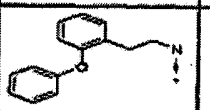
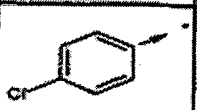
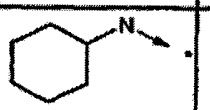
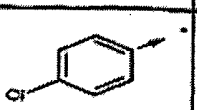
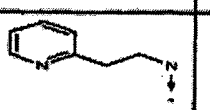
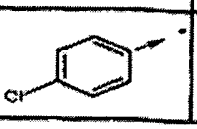
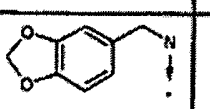
Pr.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1204			31,7 + 17,3	4,66 + 4,8	429,24
1205			41,8	3,86	407,14
1206			67,8	4,58	487,20
1207			33,2	4,31	415,20
1208			60,9	3,29	438,21
1209			58	4,29	467,18
1210			51,9	4,21	429,15
1211			70	5,03	513,24
1212			22,9	3,17	441,19
1213			71,8	3,81	516,16
1214			35,4	5,03	499,23
1215			64	5,18	527,25



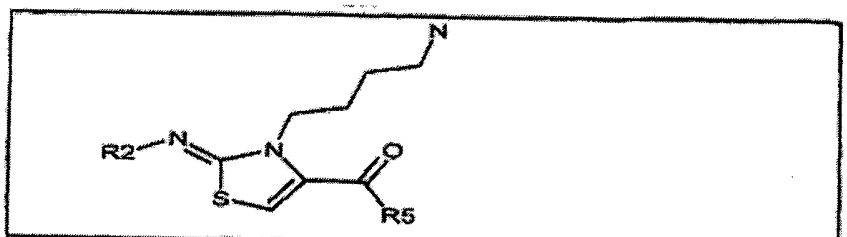
Př.	R2	R5	Čistota(%)	Ret. (min)	$[M+H]^+$
1216			68,2	4,71	471,19
1217			76,5	4,84	491,18
1218			67,6	4,35	459,16
1219			28,7 + 14,2	5,27 + 5,4	471,30
1220			66,9	4,52	449,21
1221			64,1	5,17	529,21
1222			49,7	4,55	423,19
1223			78,8	3,41	446,17
1224			76,2	4,48	475,15
1225			68,3	4,42	437,12
1226			79,6	5,24	521,17
1227			49,1	3,29	449,20

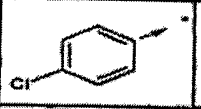
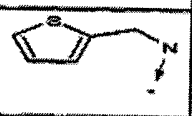
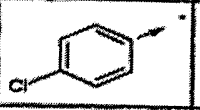
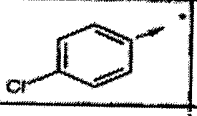
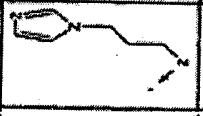
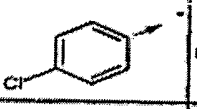
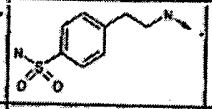
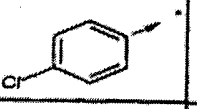
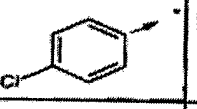
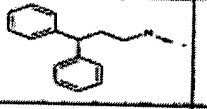
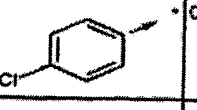
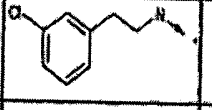
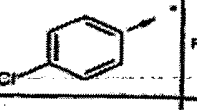
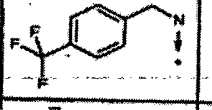
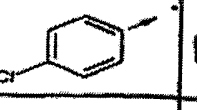
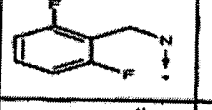
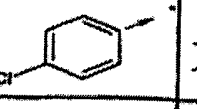
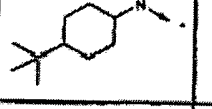
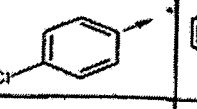
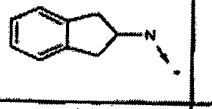
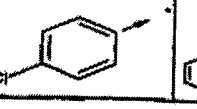
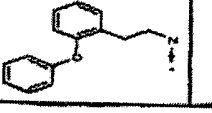
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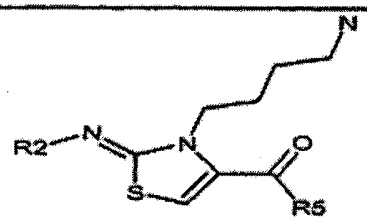


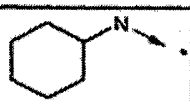
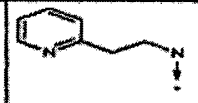
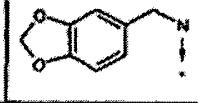
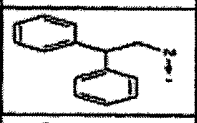
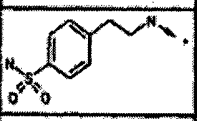
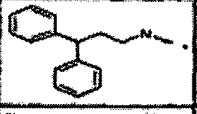
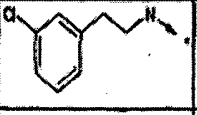
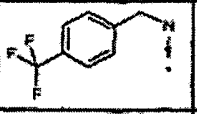
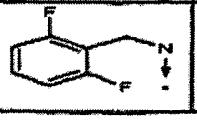
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1228			72,2	4	524,15
1229			69,7	5,22	507,20
1230			75	5,42	535,20
1231			78	4,93	479,13
1232			79,1	5,04	499,16
1233			82,6	4,56	467,13
1234			45 + 24,6	5,53 + 5,7	479,26
1235			77	4,75	457,18
1236			70,4	5,41	537,18
1237			47,7	4,38	407,12
1238			71,3	3,27	430,12
1239			70,2	4,35	459,10

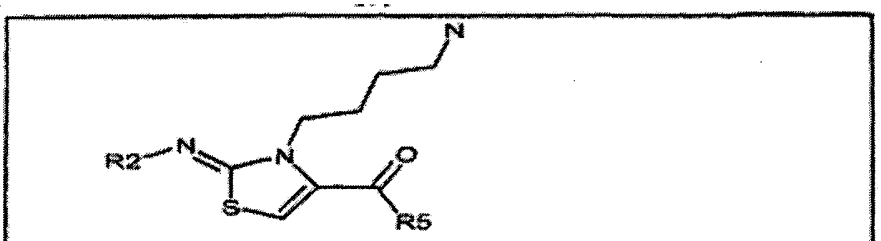
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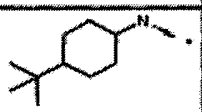
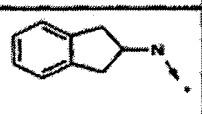
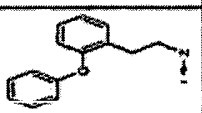


Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1240			68,1	4,27	421,06
1241			78,8	5,13	505,13
1242			24	3,17	433,11
1243			74,2	3,86	508,08
1244			43	5,16	491,08
1245			71,8	5,38	519,12
1246			69,9	4,85	463,05
1247			79,2	4,96	483,10
1248			77,9	4,45	451,07
1249			42,6 + 23,5	5,42 + 5,6	463,20
1250			70	4,65	441,11
1251			72	5,36	521,12

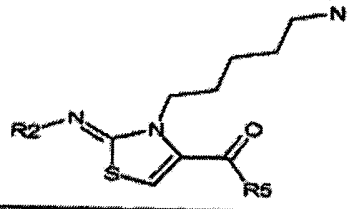


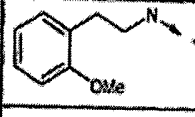
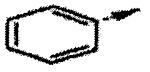
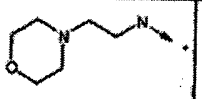
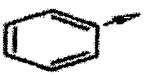
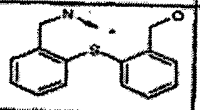
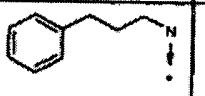
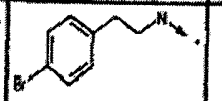
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1252			28,2	4,96	441,14
1253			65,8	3,69	464,14
1254			51	4,86	493,14
1255			64,5	4,79	455,08
1256			72,2	5,55	539,16
1257			27,2	3,59	467,16
1258			38,6	4,38	542,12
1259			49,4	5,53	525,16
1260			60,6	5,73	553,20
1261			67,7	5,27	497,13
1262			80,8	5,34	517,12
1263			78	4,92	485,13



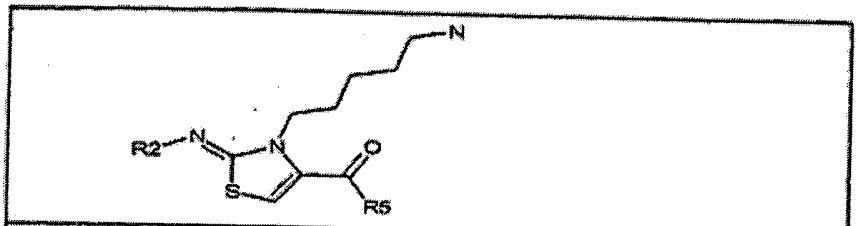
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1264			28,5 + 14,4	5,87 + 6,0	497,26
1265			60,5	5,13	475,16
1266			65,7	5,73	555,14

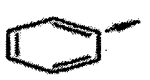
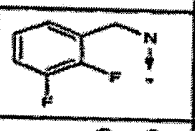
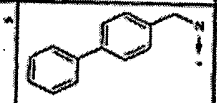
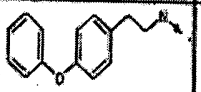
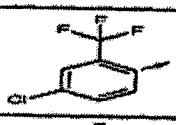
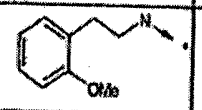
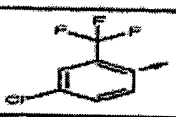
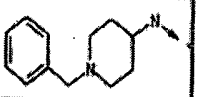
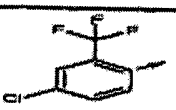
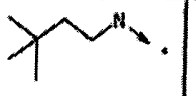
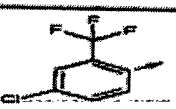
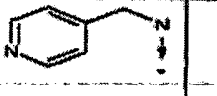
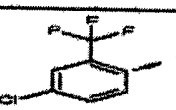
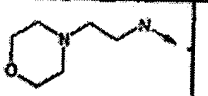
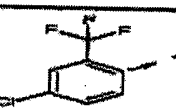
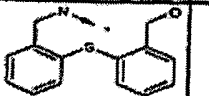
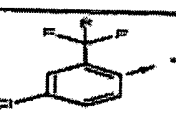
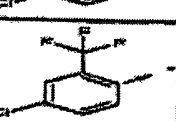
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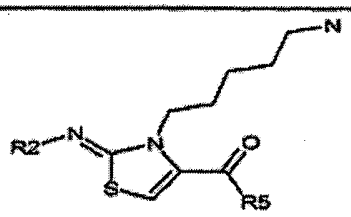
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1267			60	3,86	439,18
1268			88,1	2,89	478,24
1269			89,1	3,83	389,20
1270			94,3	2,41	396,14
1271			94	2,33	418,20
1272			80,3	4,05	533,17
1273			93	4,33	485,23
1274			90,5	4,27	471,22
1275			82,4	3,94	423,20
1276			92,8	4,07	487,10
1277			92,3	4,09	463,16
1278			90,6	2,9	430,20

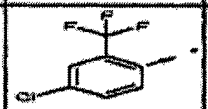
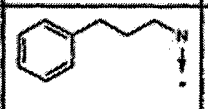
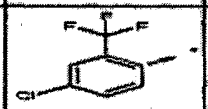
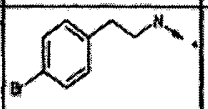
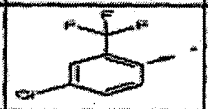
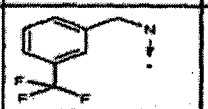
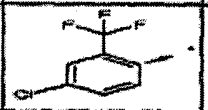
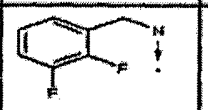
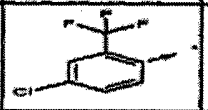
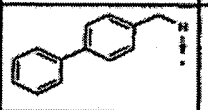
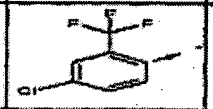
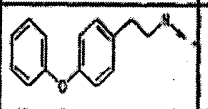
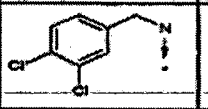
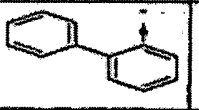
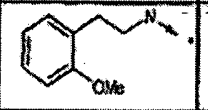
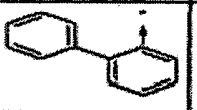
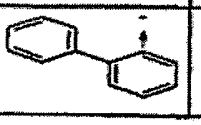
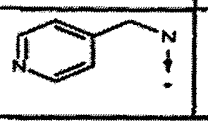
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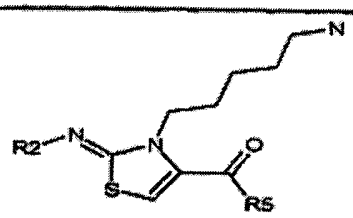
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1279			94,7	3,69	431,14
1280			90,6	4,37	471,21
1281			86,4	4,51	501,20
1282			93,1	4,16	463,09
1283			63,6	5,58	541,11
1284			82,4	4,23	580,17
1285			87,6	5,63	491,16
1286			91,5	4,03	498,13
1287			89,5	3,91	520,13
1288			82,2	5,61	635,14
1289			92,3	5,9	587,14
1290			89,9	5,86	573,11

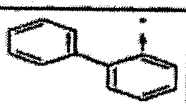
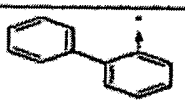
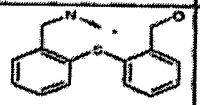
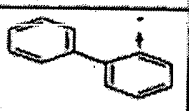
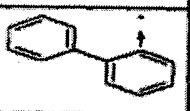
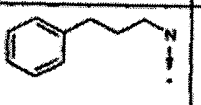
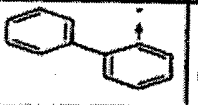
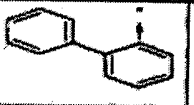
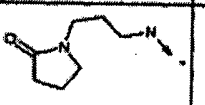
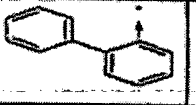
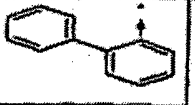
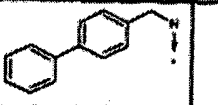
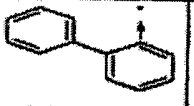
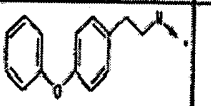
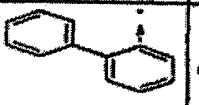
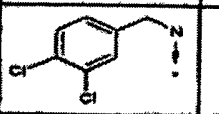
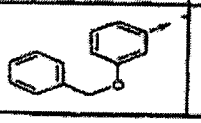
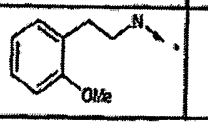
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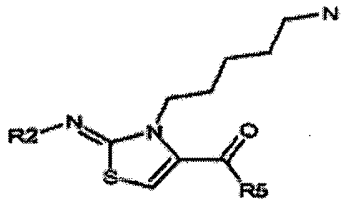
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1291			90	5,66	525,14
1292			90,9	5,73	589,02
1293			91,2	5,69	565,07
1294			89,4	4,72	532,13
1295			93,3	5,44	533,08
1296			93,1	5,95	573,11
1297			90,1	6,06	603,16
1298			90,3	5,79	565,00
1299			63,6	4,65	515,20
1300			82,9	3,63	554,24
1301			85,9	4,67	465,23
1302			85,4	3,41	472,20

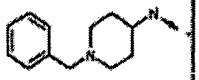
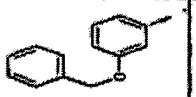
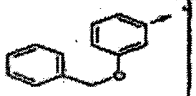
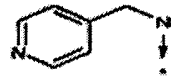
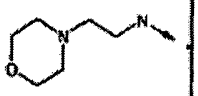
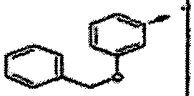
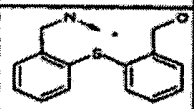
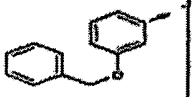
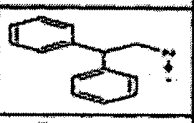
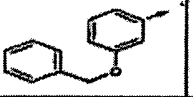
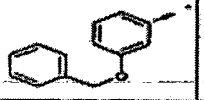
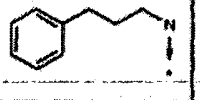
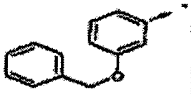
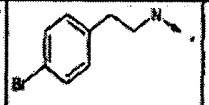
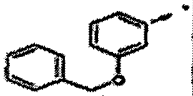
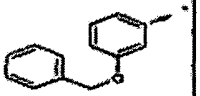
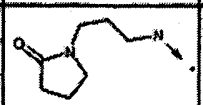
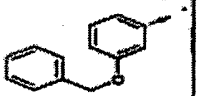
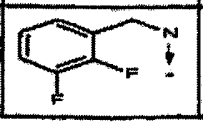
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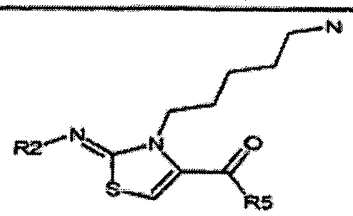


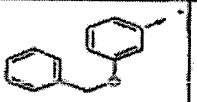
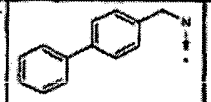
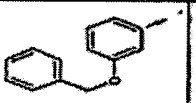
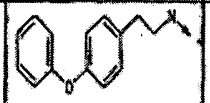
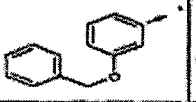
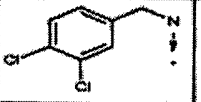
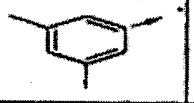
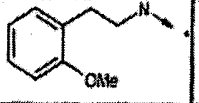
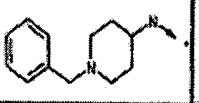
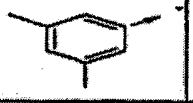
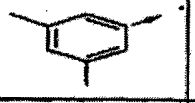
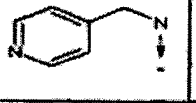
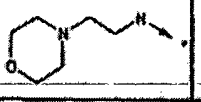
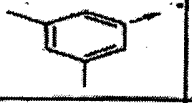
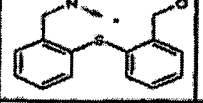
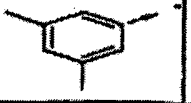
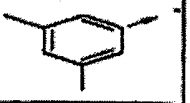
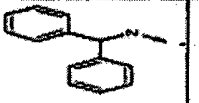
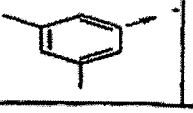
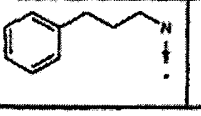
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1303			83,7	3,31	494,23
1304			84,2	4,79	609,20
1305			86,5	5,11	561,20
1306			84,2	5,11	547,19
1307			84,8	4,75	499,23
1308			89	4,89	539,15
1309			85,9	3,76	506,23
1310			88,5	4,59	507,17
1311			87,8	5,16	547,20
1312			1,5	5,6	577,22
1313			89,7	4,99	539,10
1314			65,3	4,81	545,20

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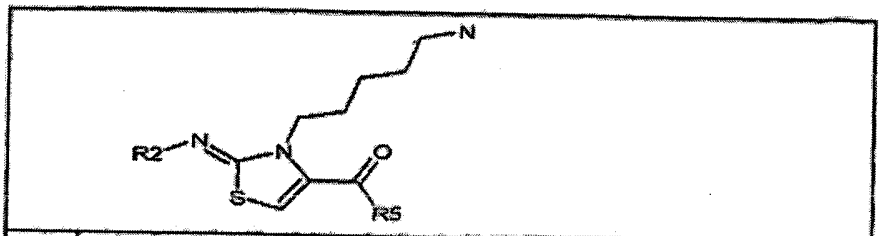


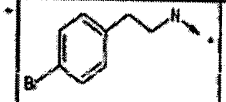
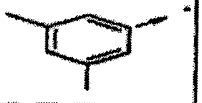
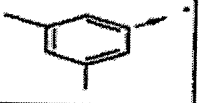
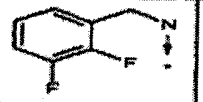
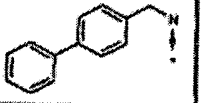
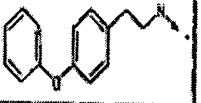
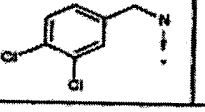
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1315			86,7	3,82	584,25
1316			87,6	4,81	495,24
1317			91	3,63	502,20
1318			90,2	3,54	524,24
1319			85,4	4,91	639,22
1320			85,7	5,21	591,23
1321			90	5,19	577,22
1322			87,9	4,87	529,22
1323			86,4	5	593,12
1324			87,5	5,01	569,16
1325			89,7	4	536,23
1326			89,6	4,73	537,18



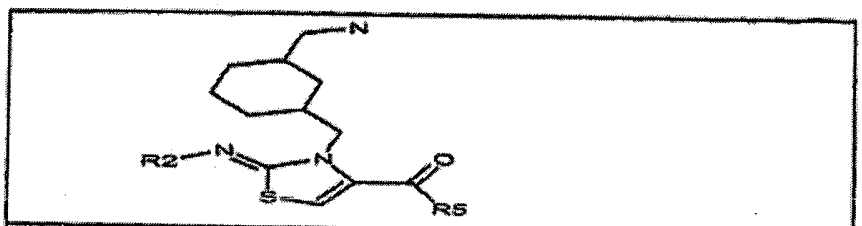
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1327			89,6	5,24	577,24
1328			86,7	5,33	607,24
1329			90,6	5,1	569,10
1330			62,1	4,17	467,23
1331			92,8	3,23	506,28
1332			81,3	4,14	417,24
1333			91,9	2,95	424,19
1334			91,8	2,87	446,24
1335			78,7	4,31	561,19
1336			89,5	4,58	513,25
1337			91,3	4,54	499,24
1338			80,3	4,24	451,23

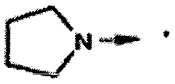
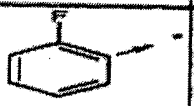
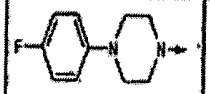
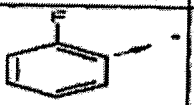
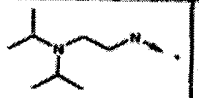
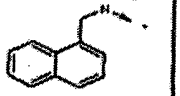
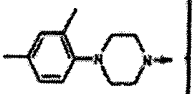
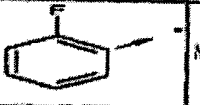
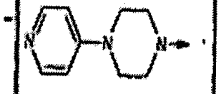
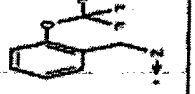
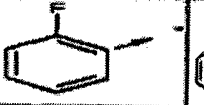
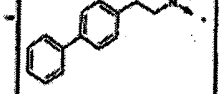
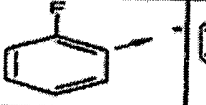
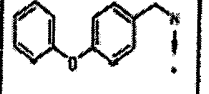
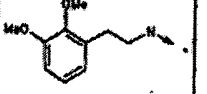
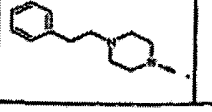
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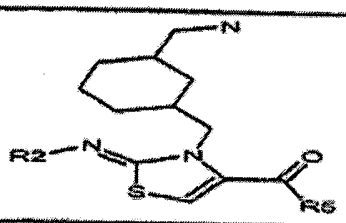
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
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1340			85,7	4,37	491,18
1341			92,3	3,34	458,25
1342			90,8	4,05	459,19
1343			79,9	4,63	499,25
1344			76,6	4,75	529,24
1345			91,9	4,45	491,13

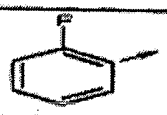
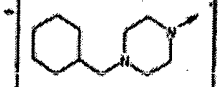
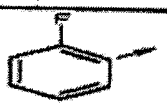
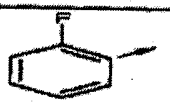
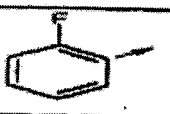
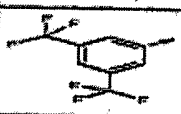
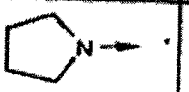
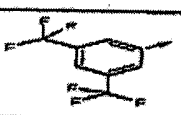
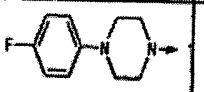
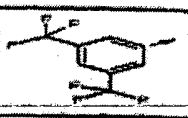
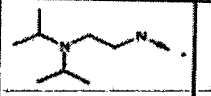
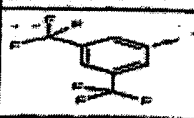
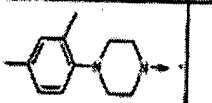
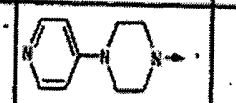
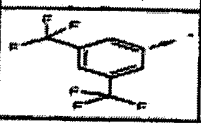
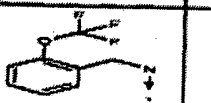
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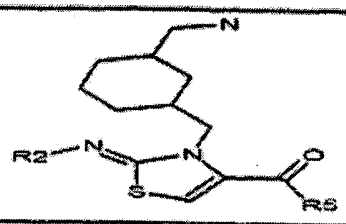
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1346			56,9 + 24,5	4,07 + 4,2	417,23
1347			64,6 + 24,4	4,98 + 5,1	526,30
1348			62,4 + 25,1	3,96 + 4,1	430,25
1349			80,5	3,44	490,37
1350			65,4 + 27,8	4,9 + 5,0	503,31
1351			64,5 + 25,5	5,6 + 5,7	536,35
1352			86,8	3,3	509,30
1353			64,1 + 29,8	5,02 + 5,1	537,26
1354			60,8 + 32,2	5,37 + 5,5	543,32
1355			59,6 + 31,5	5,24 + 5,3	545,30
1356			61,6 + 24,8	4,69 + 4,8	527,31
1357			88,7	3,8	536,36

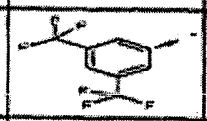
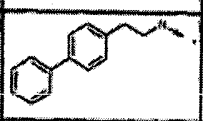
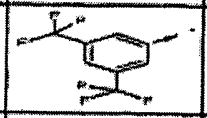
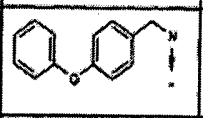
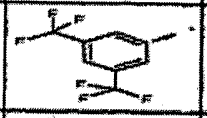
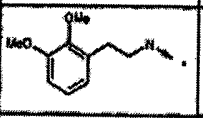
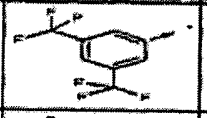
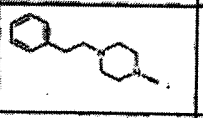
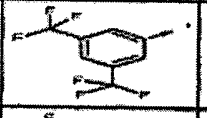
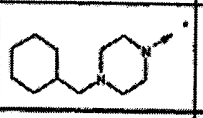
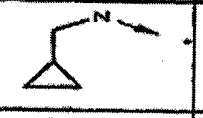
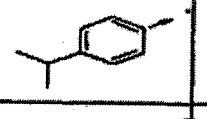
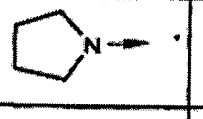
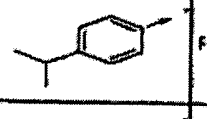
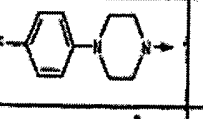
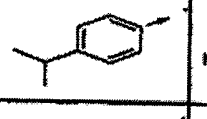
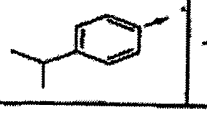
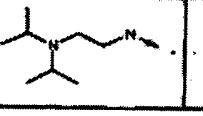
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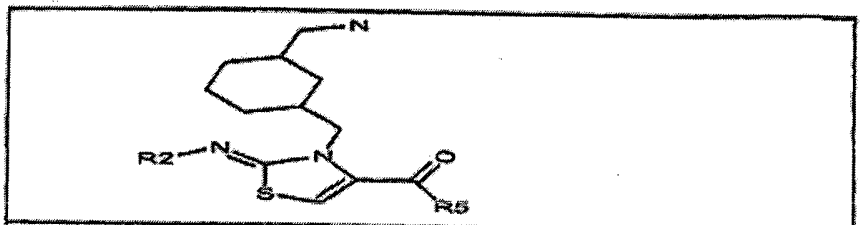


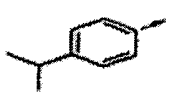
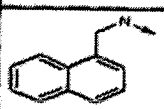
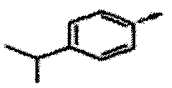
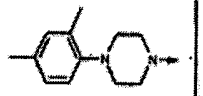
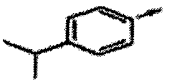
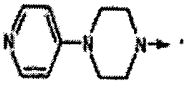
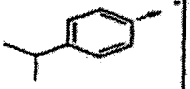
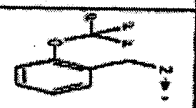
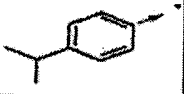
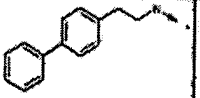
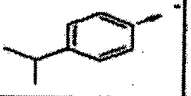
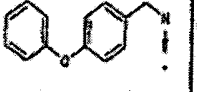
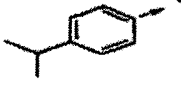
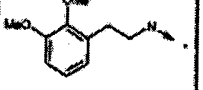
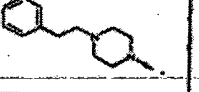
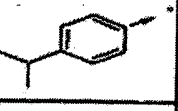
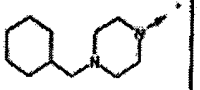
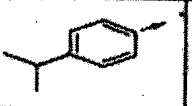
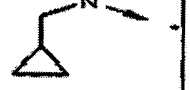
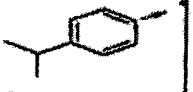
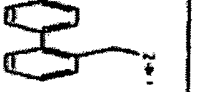
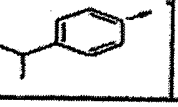
Pf.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1358			87,5	3,8	528,38
1359			58 + 25,2	4,12 + 4,3	417,27
1360			68,1 + 24,5	5,22 + 5,3	529,31
1361			64,8 + 23,1	5,12 + 5,2	535,19
1362			61,9 + 21,6	5,46 + 5,5	535,23
1363			90,4	6,06	644,33
1364			89,7	5,31	548,24
1365			84,3	4,5	608,34
1366			95,2	6,06	621,27
1367			90,9	6,6	654,4
1368			84,2	4,41	627,29
1369			92,8	6,12	655,27

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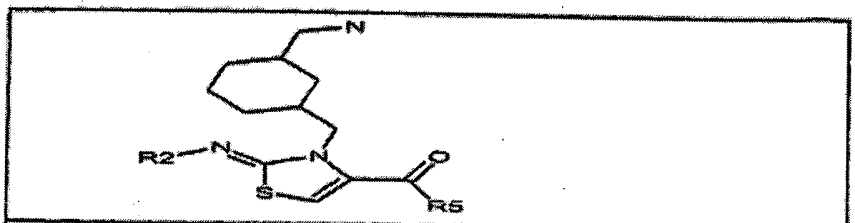


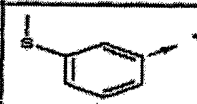
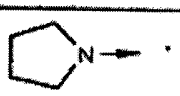
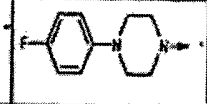
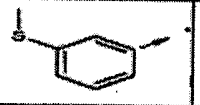
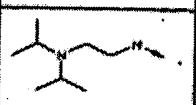
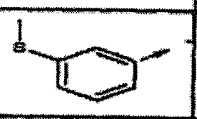
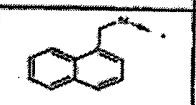
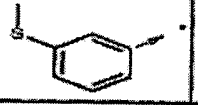
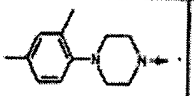
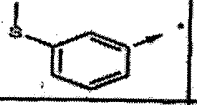
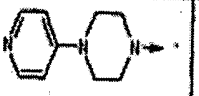
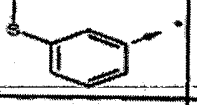
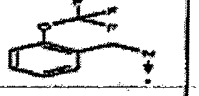
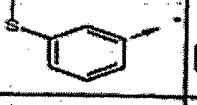
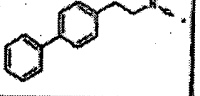
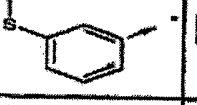
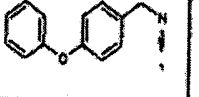
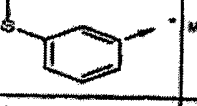
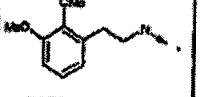
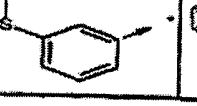
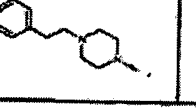
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1370			91,9	6,4	661,33
1371			93,2	6,3	663,32
1372			87,3	5,9	645,32
1373			87,5	4,7	654,4
1374			84,8	4,7	646,38
1375			71,8	5,53	535,23
1376			94,2	6,28	647,32
1377			91,6	6,25	653,22
1378			63 + 26,1	3,98 + 4,2	441,30
1379			64,5 + 28	4,8 + 5,0	550,36
1380			65,1 + 26,9	3,93 + 4,1	454,30
1381			66,6 + 30,1	3,54 + 3,6	514,40

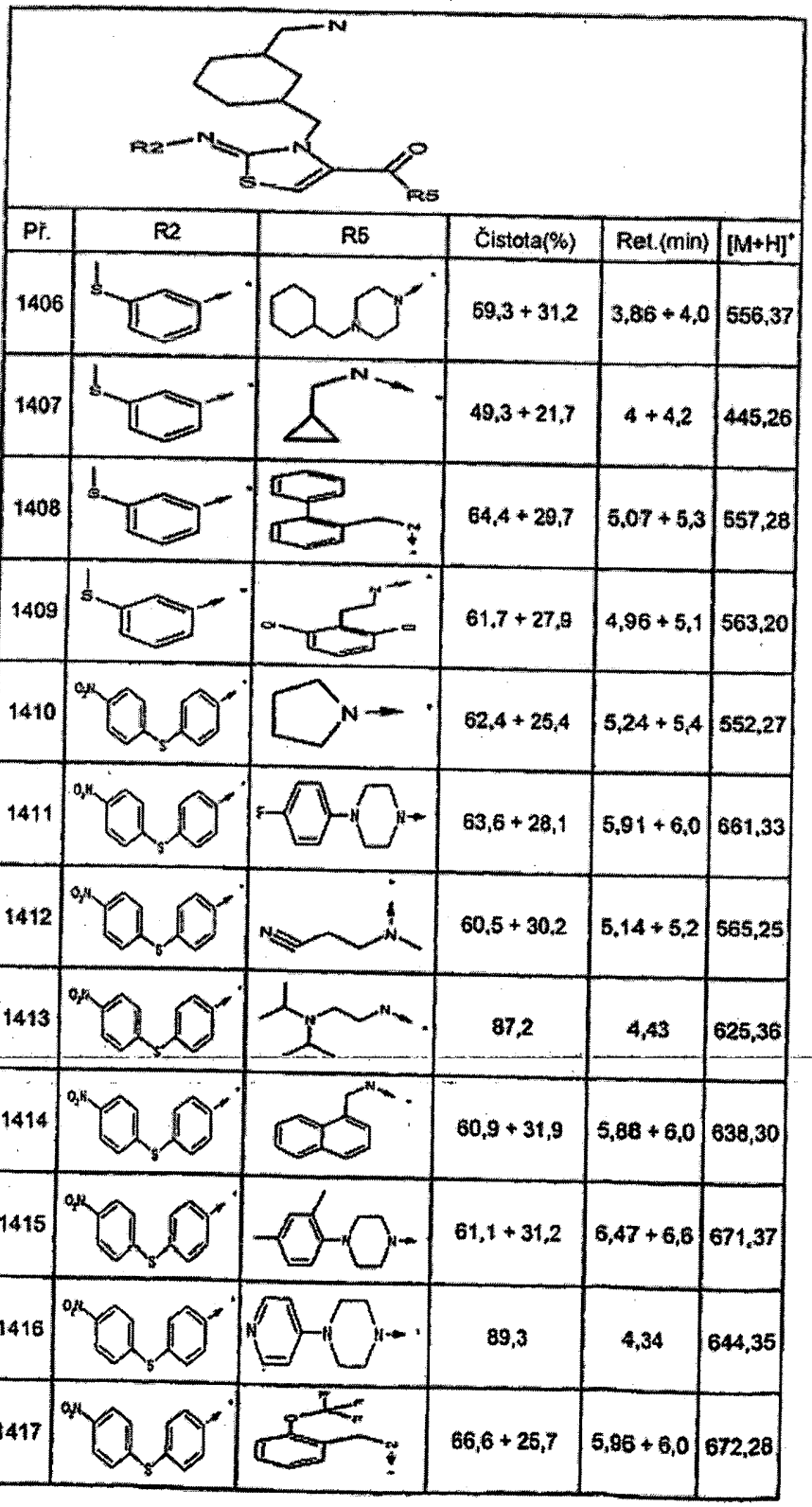


Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1382			64,8 + 30,3	4,64 + 4,9	527,34
1383			64,3 + 28,3	5,33 + 5,6	560,39
1384			64,5 + 24,8	3,5 + 3,6	533,35
1385			62,9 + 27,5	4,77 + 5,0	561,29
1386			48,5 + 20,8	5,08 + 5,3	567,36
1387			61,2 + 27,5	4,98 + 5,2	569,33
1388			58,4 + 22,7	4,5 + 4,7	551,36
1389			65,1 + 26,4	3,92 + 4,0	560,38
1390			63,6 + 26,1	3,92 + 4,1	552,43
1391			64 + 27,3	4,01 + 4,2	441,30
1392			66,2 + 28,9	4,96 + 5,2	553,35
1393			62,8 + 26,6	4,84 + 5,0	559,23

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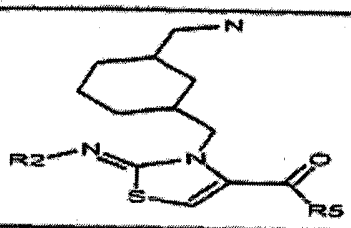


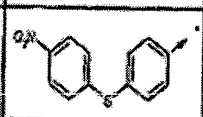
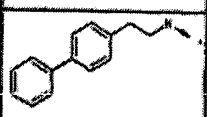
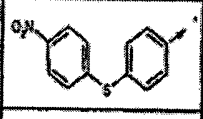
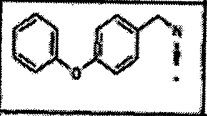
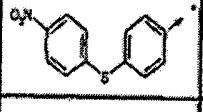
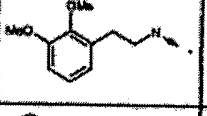
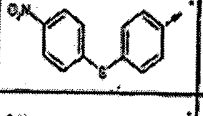
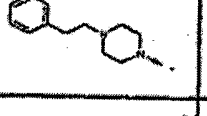
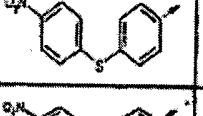
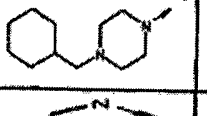
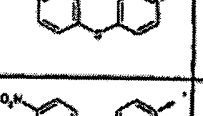
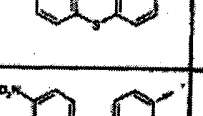
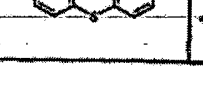
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1394			59,4 + 26,3	3,95 + 4,1	445,26
1395			63,7 + 28,7	4,89 + 5,1	554,28
1396			62 + 27,9	3,9 + 4,1	458,27
1397			58,9 + 28,7	3,48 + 3,5	518,35
1398			62,9 + 29,3	4,75 + 5,0	531,28
1399			63,2 + 28,4	5,46 + 5,7	564,32
1400			58,3 + 30,4	3,39 + 3,5	537,30
1401			61,8 + 28,3	4,88 + 5,0	565,23
1402			61,5 + 27,9	5,2 + 5,4	571,28
1403			62,2 + 29,5	5,09 + 5,3	573,28
1404			60,6 + 26,7	4,54 + 4,7	555,30
1405			59,2 + 31,8	3,86 + 4,0	564,32



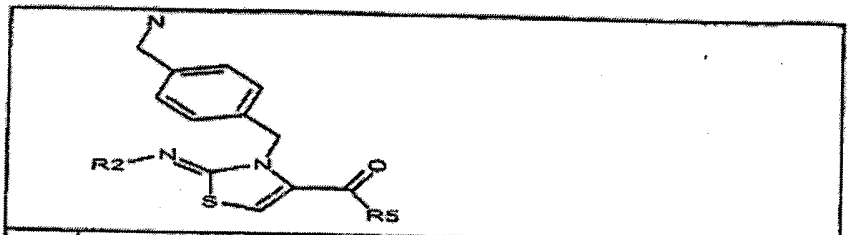
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1406			59,3 + 31,2	3,86 + 4,0	556,37
1407			49,3 + 21,7	4 + 4,2	445,26
1408			64,4 + 29,7	5,07 + 5,3	557,28
1409			61,7 + 27,9	4,96 + 5,1	563,20
1410			62,4 + 25,4	5,24 + 5,4	552,27
1411			63,6 + 28,1	5,91 + 6,0	661,33
1412			60,5 + 30,2	5,14 + 5,2	565,25
1413			87,2	4,43	625,36
1414			60,9 + 31,9	5,88 + 6,0	638,30
1415			61,1 + 31,2	6,47 + 6,6	671,37
1416			89,3	4,34	644,35
1417			66,6 + 25,7	5,96 + 6,0	672,28

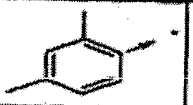
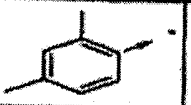
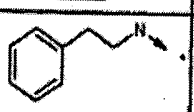
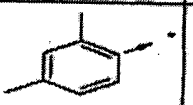
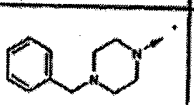
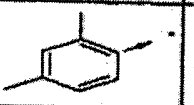
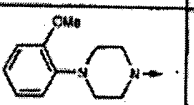
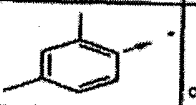
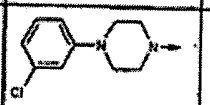
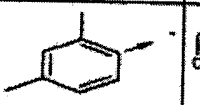
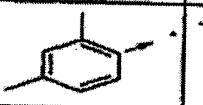
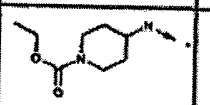
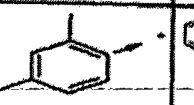
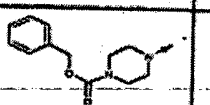
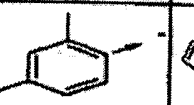
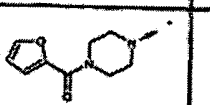
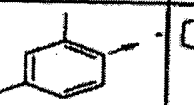
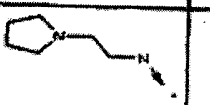
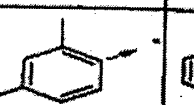
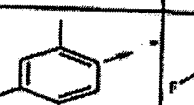
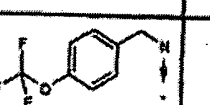
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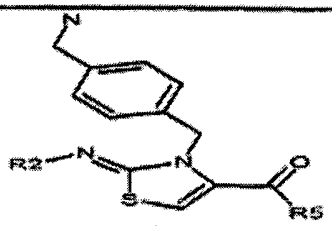
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1418			65,1 + 25,4	6,25 + 6,3	678,35
1419			63 + 27,5	6,13 + 6,2	680,32
1420			54,7 + 29,8	5,75 + 5,8	662,33
1421			91,7	4,71	671,38
1422			89,3	4,72	663,41
1423			49 + 23,9	5,34 + 5,4	552,26
1424			64,1 + 27,2	6,18 + 6,2	664,34
1425			62,3 + 27,3	6,13 + 6,2	670,25

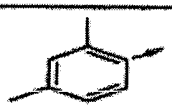
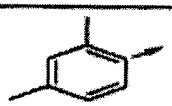
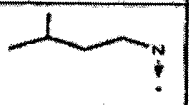
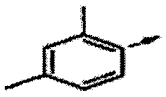
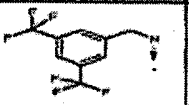
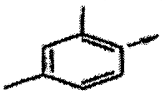
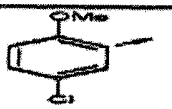
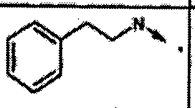
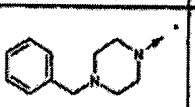
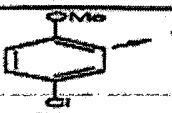
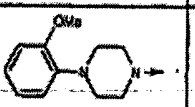
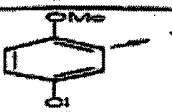
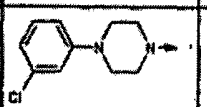
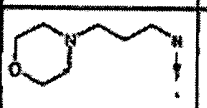
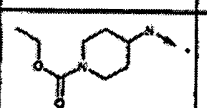
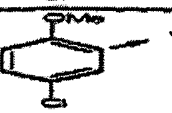
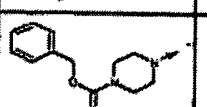
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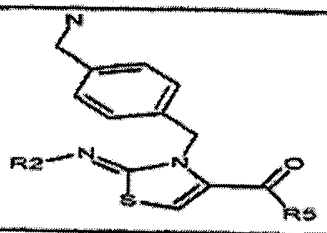
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1426			78,4	4,58	463,27
1427			53,4	4,48	471,23
1428			86,2	3,67	526,29
1429			86	4,58	542,25
1430			84,9	4,98	546,21
1431			42,9	3,26	494,27
1432			84,4	4,14	522,26
1433			83,2	4,72	570,25
1434			87,1	4,04	530,22
1435			45,6	3,16	464,25
1436			85,6	4,4	475,20
1437			84,2	4,96	541,18

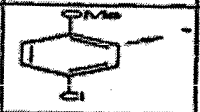
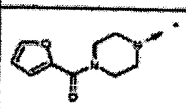
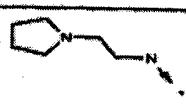
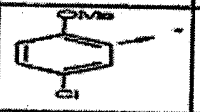
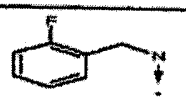
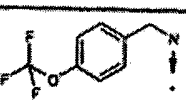
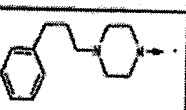
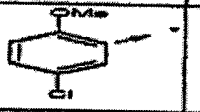
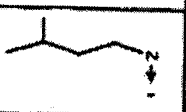
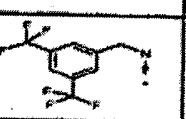
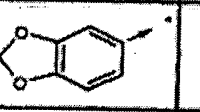
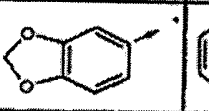
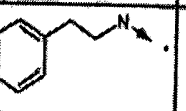
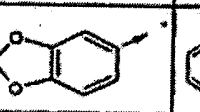
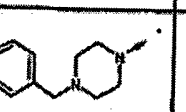
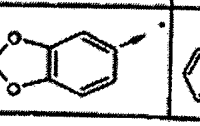
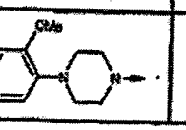
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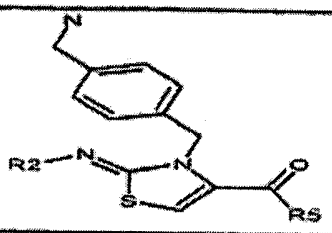
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1438			87,2	3,88	554,28
1439			84,5	4,39	437,23
1440			33,8	5,34	593,17
1441			9,5	4,7	463,24
1442			78,8	5,11	499,20
1443			46,9	4,98	507,17
1444			87,9	3,88	562,19
1445			85,6	4,95	578,19
1446			84,9	5,3	582,14
1447			49	3,45	530,19
1448			81,4	4,62	558,18
1449			83	5,06	606,20

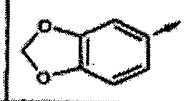
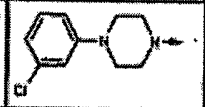
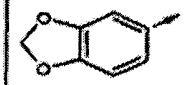
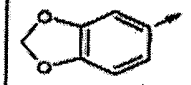
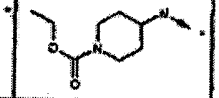
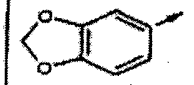
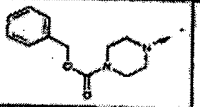
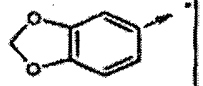
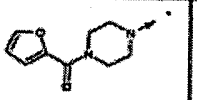
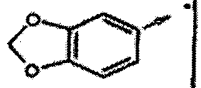
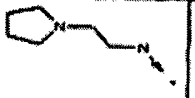
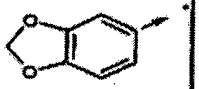
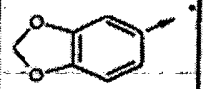
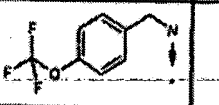
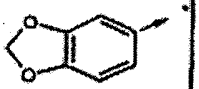
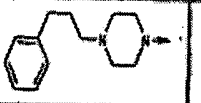
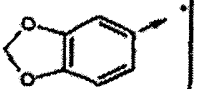
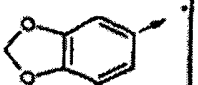
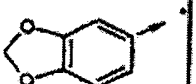
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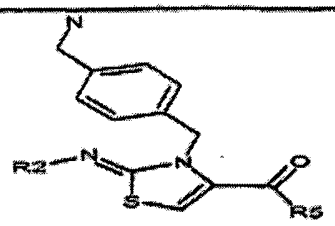


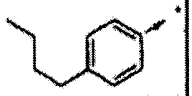
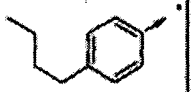
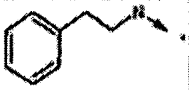
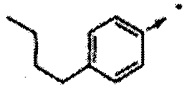
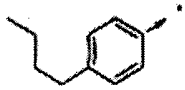
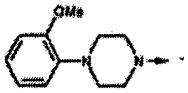
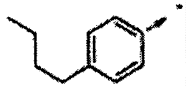
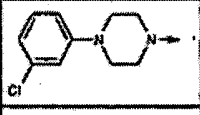
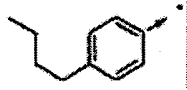
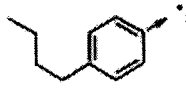
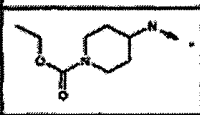
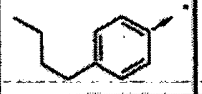
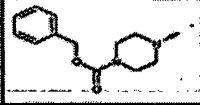
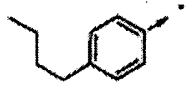
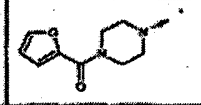
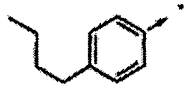
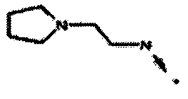
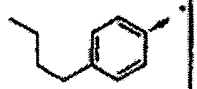
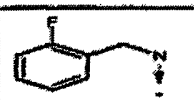
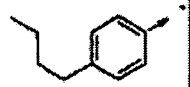
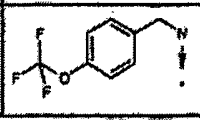
Pf.	R2	R5	Čistota(%)	Ret.(min)	[M+H]⁺
1450			84,9	4,42	566,15
1451			40,7	3,5	500,19
1452			85,1	4,87	511,13
1453			87,4	5,33	577,13
1454			85,6	4,08	590,24
1455			54,9	4,92	473,21
1456			43	5,66	629,13
1457			17,2	5,2	499,20
1458			77,6	4,3	479,20
1459			55,3	4,2	487,18
1460			85,2	3,32	542,22
1461			87	4,22	558,19

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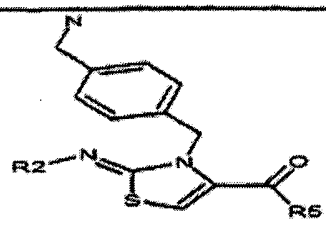


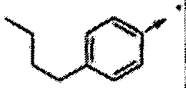
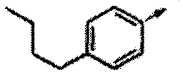
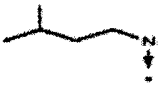
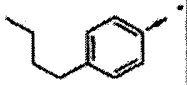
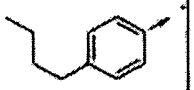
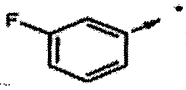
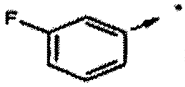
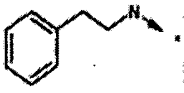
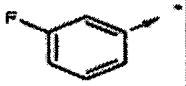
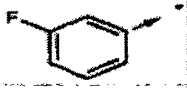
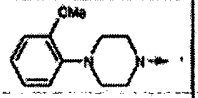
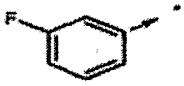
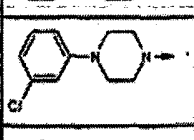
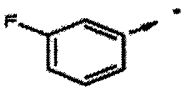
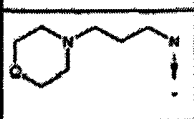
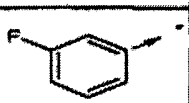
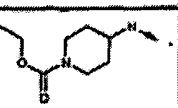
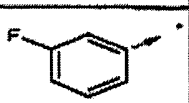
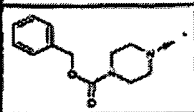
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1462			85,9	4,64	562,14
1463			82,9	2,74	510,23
1464			81,6	3,84	538,20
1465			84,1	4,41	586,21
1466			85,5	3,66	546,16
1467			49,3	2,8	480,20
1468			81,7	4,11	491,15
1469			83,7	4,71	557,14
1470			82,2	3,59	570,24
1471			66,1	4,11	453,19
1472			29,5	5,12	609,14
1473			9,9	4,44	479,20



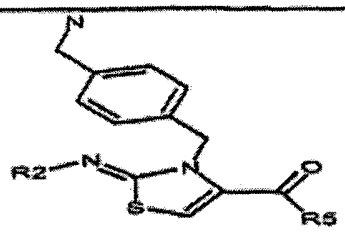
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1474			82,8	5,36	491,28
1475			58,2	5,29	499,26
1476			86,5	4,37	554,27
1477			86,6	5,33	570,26
1478			84,1	5,67	574,20
1479			70,3	3,89	522,29
1480			84,2	4,94	550,28
1481			84,5	5,44	598,26
1482			86	4,84	558,24
1483			50,1	3,93	492,29
1484			82,5	5,23	503,25
1485			79,3	5,68	569,19

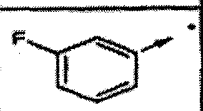
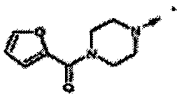
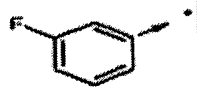
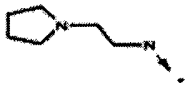
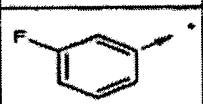
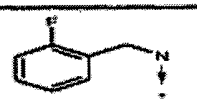
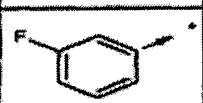
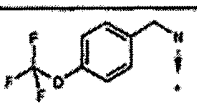
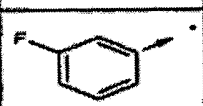
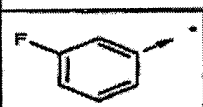
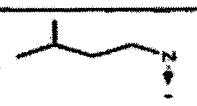
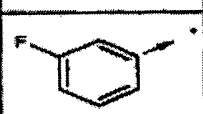
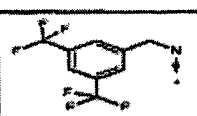
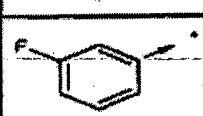
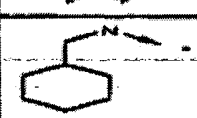
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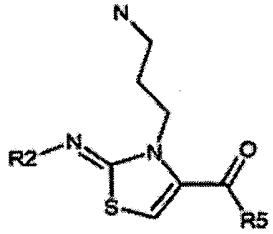
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1486			87,3	4,51	582,31
1487			79,7	5,22	465,25
1488			26,1	6,06	621,20
1489			16,1	5,51	491,28
1490			77	5,02	453,22
1491			48,4	4,88	461,16
1492			83,3	3,74	516,22
1493			84,6	4,85	532,2
1494			84,4	5,23	536,15
1495			69,9	3,29	484,23
1496			79,5	4,51	512,22
1497			81,9	4,96	560,17

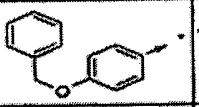
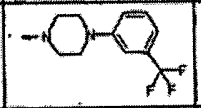
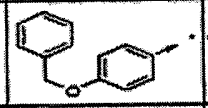
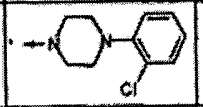
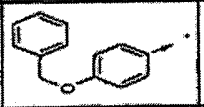
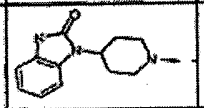
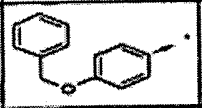
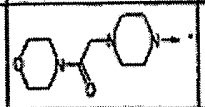
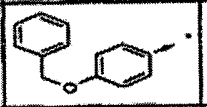
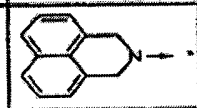
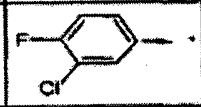
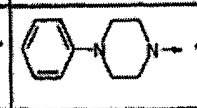
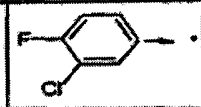
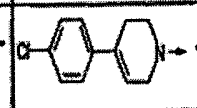
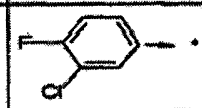
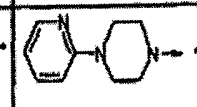
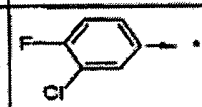
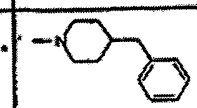
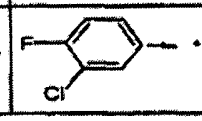
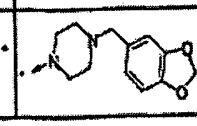
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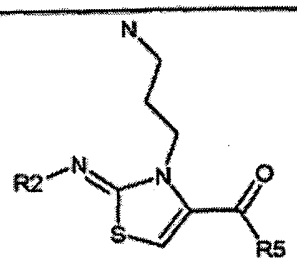
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1498			85,5	4,29	520,16
1499			67,7	3,32	454,19
1500			82,7	4,78	465,14
1501			82,1	5,26	531,13
1502			84,8	3,95	544,22
1503			77,5	4,83	427,16
1504			24	5,6	583,11
1505			17,7	5,12	453,21

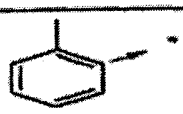
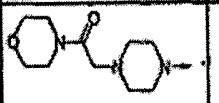
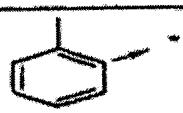
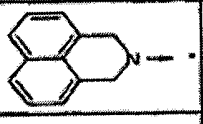
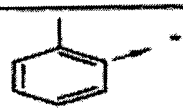
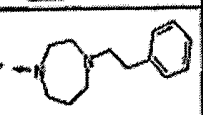
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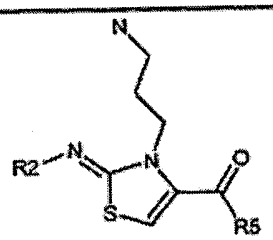
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
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1507			87,2	5,37	562,23
1508			77	4,62	583,26
1509			89,1	3,7	579,25
1510			88,6	5,32	535,23
1511			87,6	4	570,27
1512			88	5,12	474,19
1513			90,5	5,09	519,14
1514			91,2	5,7	505,1
1515			88	3,74	475,17
1516			86,7	5,58	487,20
1517			88,3	3,88	532,18

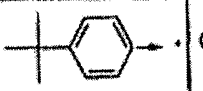
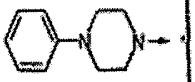
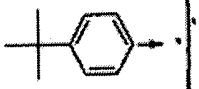
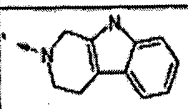
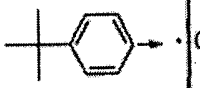
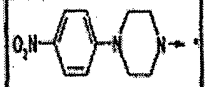
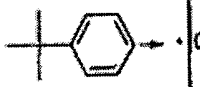
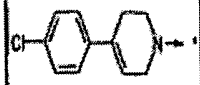
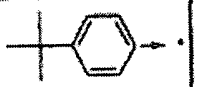
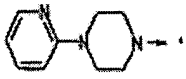
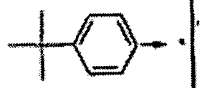
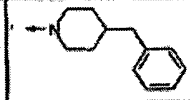
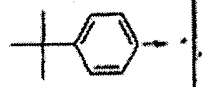
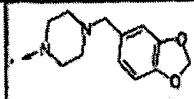
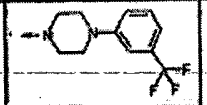
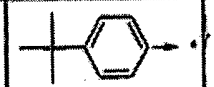
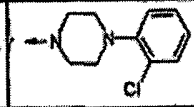
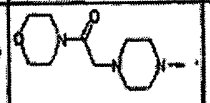
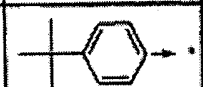
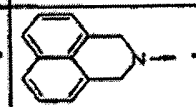
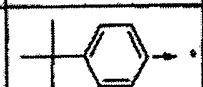
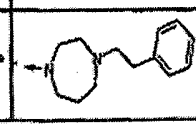
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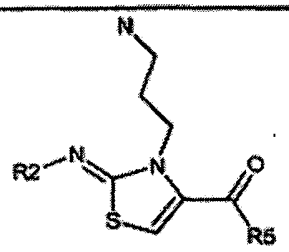
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1518			90,4	3	487,27
1519			92,8	4,86	443,21
1520			87,8	3,58	478,28

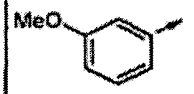
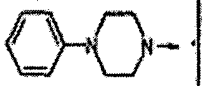
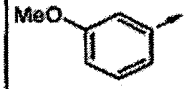
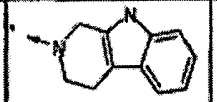
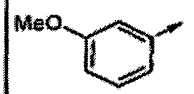
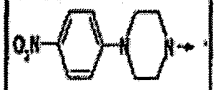
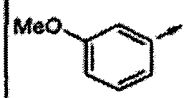
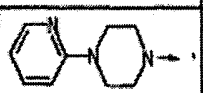
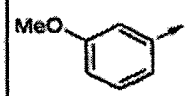
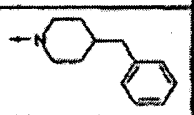
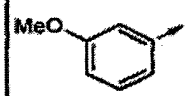
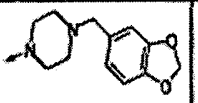
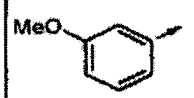
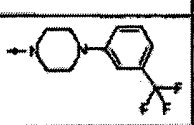
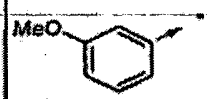
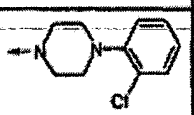
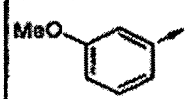
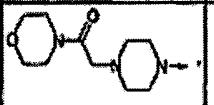
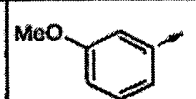
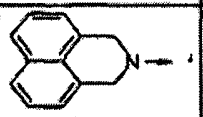
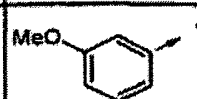
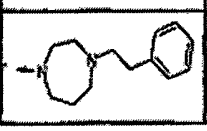
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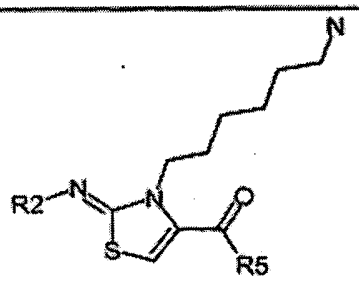
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1521			90,4	5,2	478,28
1522			79,8	5,37	488,26
1523			90,3	5,13	523,27
1524			81,2	5,7	509,2
1525			91	3,88	479,26
1526			91,5	5,62	491,29
1527			91,1	4,1	536,28
1528			91,9	5,68	546,25
1529			92	5,54	512,24
1530			91,4	3,7	529,3
1531			92,4	5,49	485,23
1532			89,4	4,2	520,28

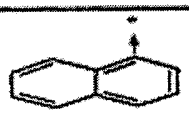
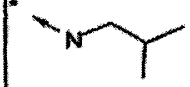
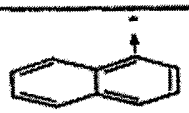
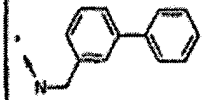
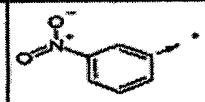
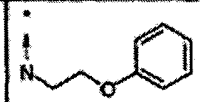
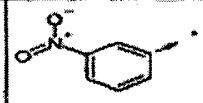
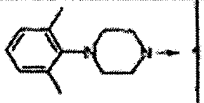
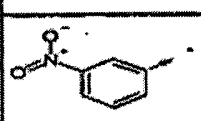
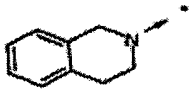
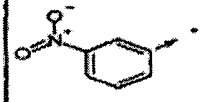
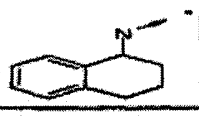
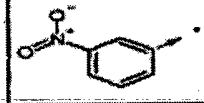
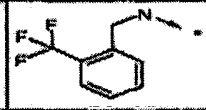
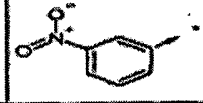
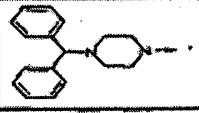
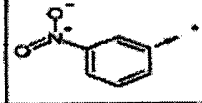
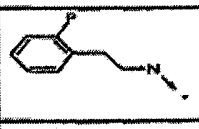
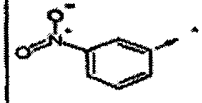
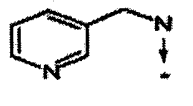
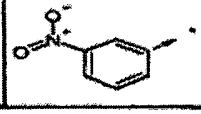
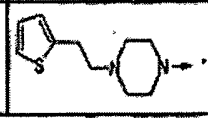
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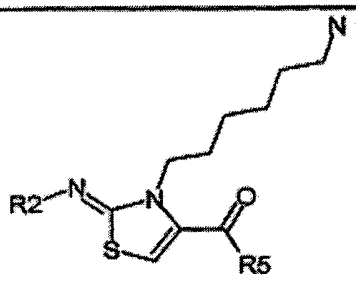
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1533			90,1	4,56	452,20
1534			76,8	4,76	462,18
1535			92,5	4,58	497,22
1536			93,4	3,21	453,21
1537			91,2	5,04	465,22
1538			92,7	3,44	510,22
1539			89,6	5,14	520,18
1540			90,2	4,93	486,17
1541			89,4	2,98	503,26
1542			90,9	4,84	459,18
1543			89,1	3,55	494,26

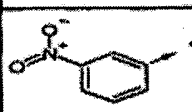
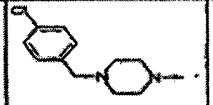
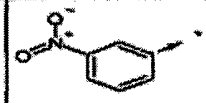
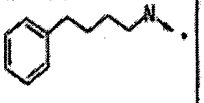
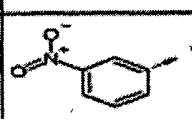
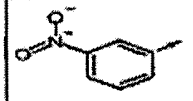
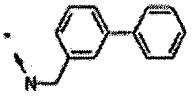
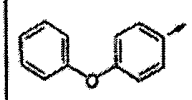
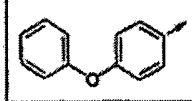
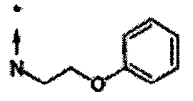
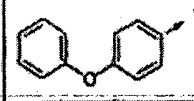
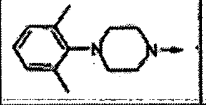
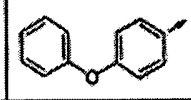
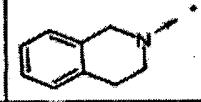
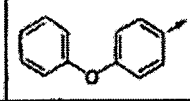
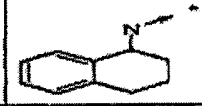
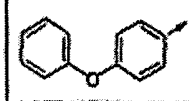
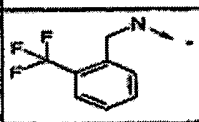
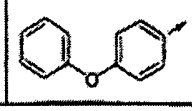
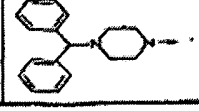
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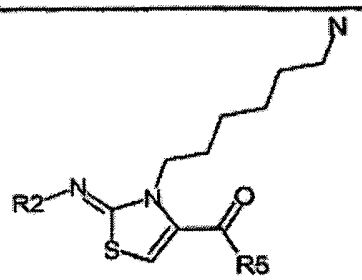
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1544			83,5	4,19	425,25
1545			78,8	5,1	535,25
1546			79,7	4,67	484,23
1547			88	5,46	537,27
1548			87,4	4,72	480,22
1549			82	4,94	494,23
1550			89,6	4,92	522,18
1551			86,9	5,03	599,27
1552			84,3	4,7	486,20
1553			82,7	3,36	455,18
1554			82	3,68	543,20

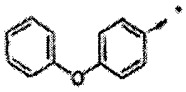
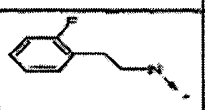
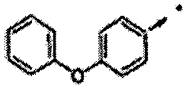
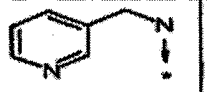
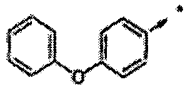
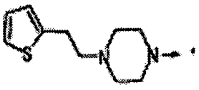
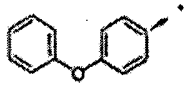
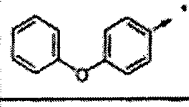
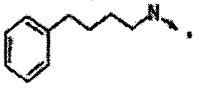
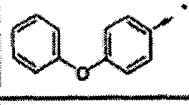
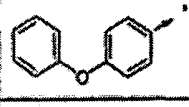
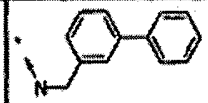
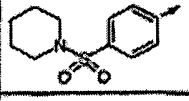
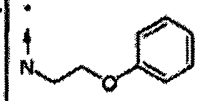
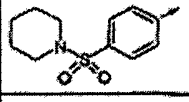
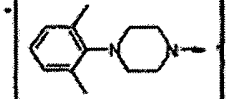
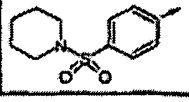
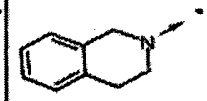
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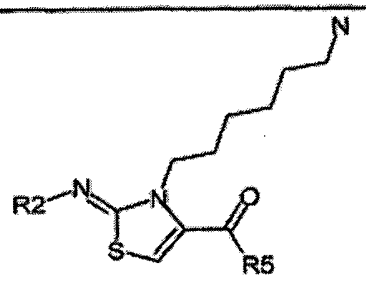
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1555			86,7	3,91	557,20
1556			80,9	5,06	496,26
1557			83,1	4,35	420,21
1558			87,5	5,2	530,22
1559			76,7	4,62	495,27
1560			80,9	4,44	531,25
1561			85,7	5,16	584,30
1562			85,4	4,51	527,25
1563			82,1	4,66	541,25
1564			87,4	4,66	569,19
1565			82,9	5,03	646,34

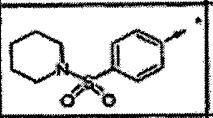
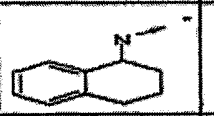
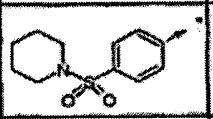
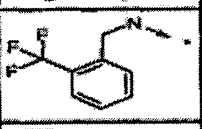
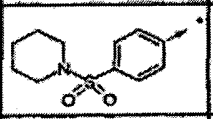
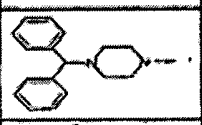
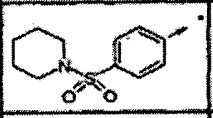
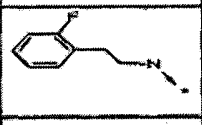
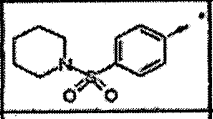
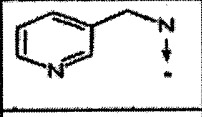
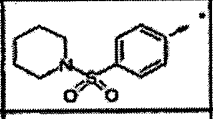
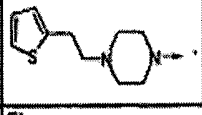
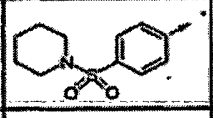
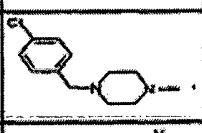
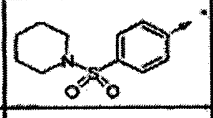
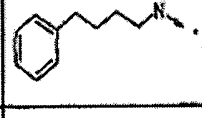
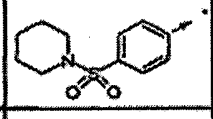
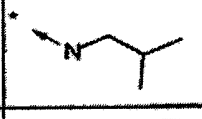
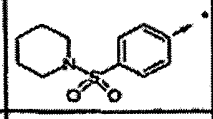
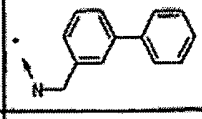
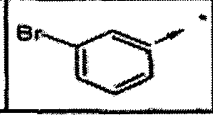
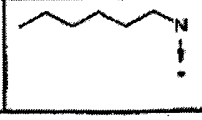
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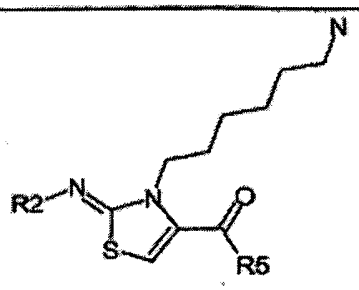
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1566			82,7	4,44	533,23
1567			85	3,46	502,24
1568			81,8	3,82	590,27
1569			84,5	4,03	604,26
1570			81,9	4,74	543,27
1571			84,3	4,13	467,25
1572			77,4	4,9	577,2
1573			77,7	5,15	550,3
1574			80,7	4,9	586,24
1575			86,4	5,6	639,34
1576			86,2	4,94	582,25

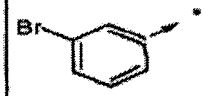
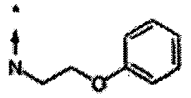
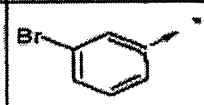
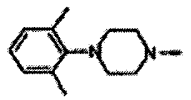
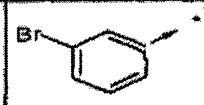
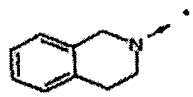
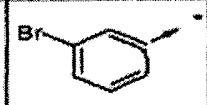
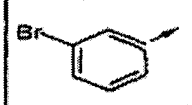
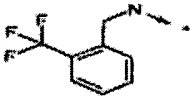
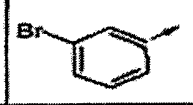
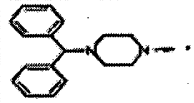
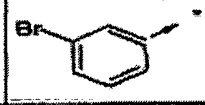
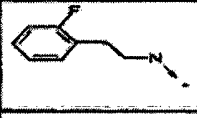
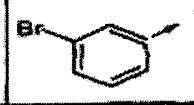
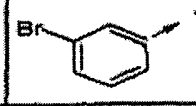
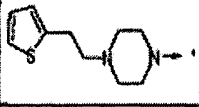
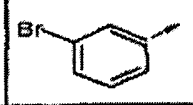
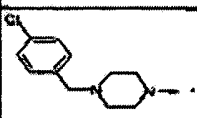
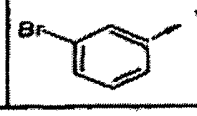
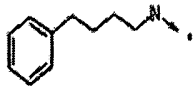
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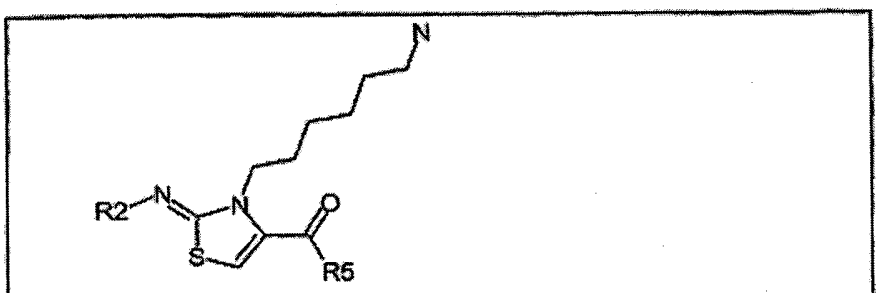
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1577			82	5,17	596,28
1578			89,7	5,14	624,22
1579			86,1	5,22	701,35
1580			85,1	4,92	588,23
1581			81,7	3,67	557,23
1582			81	3,9	645,32
1583			85,2	4,12	659,31
1584			82,4	5,26	598,26
1585			83,6	4,62	522,25
1586			85,3	5,39	632,29
1587			82,6	4,94	481,16

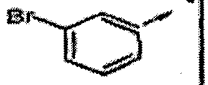
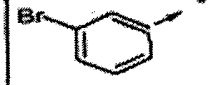
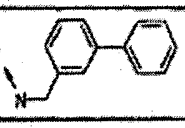
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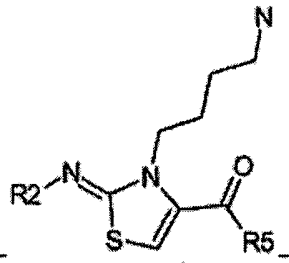
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1588			84,3	4,71	517,16
1589			89,6	5,54	570,16
1590			87,8	4,78	513,13
1591			85,2	4,99	527,15
1592			90,9	4,98	555,07
1593			88,1	5,21	632,22
1594			86,9	4,72	519,10
1595			87,4	3,47	488,12
1596			82,5	3,82	576,16
1597			86,1	4,06	590,12
1598			85,1	5,08	529,16

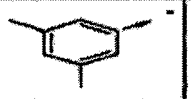
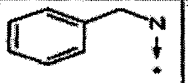
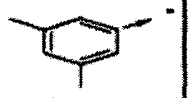
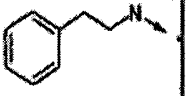
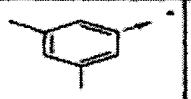
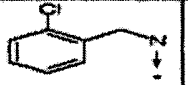
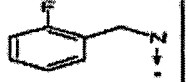
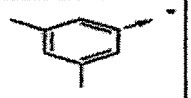
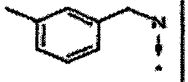
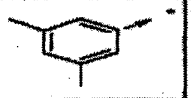
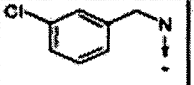
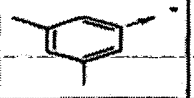
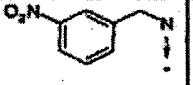
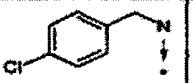
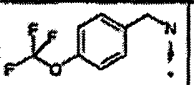
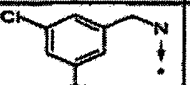
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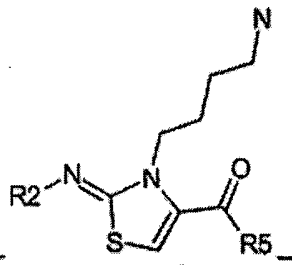
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1599			84,8	4,34	453,13
1600			74,9	5,26	563,13

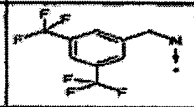
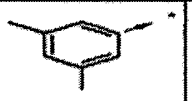
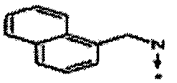
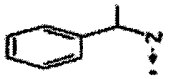
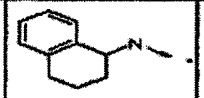
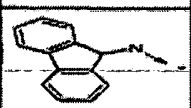
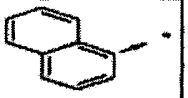
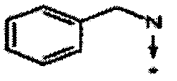
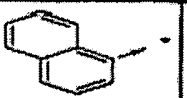
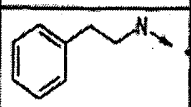
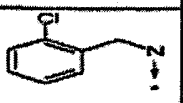
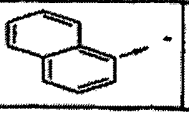
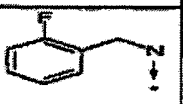
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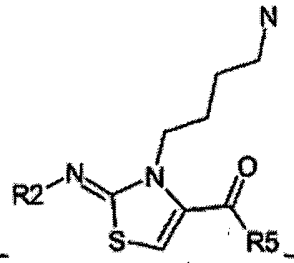
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1601			88,1	3,87	409,24
1602			90,1	4,0	423,26
1603			60,2	4,1	443,21
1604			91	3,9	427,24
1605			57,6	4,4	493,23
1606			48,1	4,12	423,27
1607			45,1	4,2	443,22
1608			60,8	4,49	493,24
1609			54,5	3,98	454,26
1610			84	4,19	443,23
1611			92,8	4,49	493,25
1612			86,2	4,51	477,21

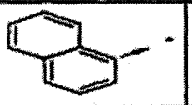
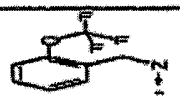
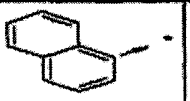
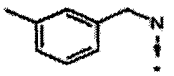
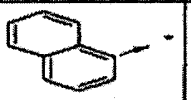
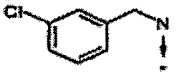
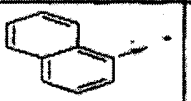
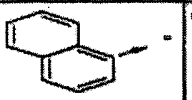
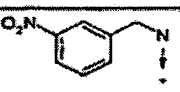
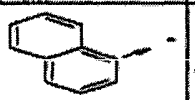
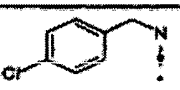
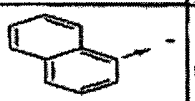
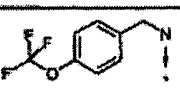
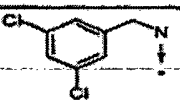
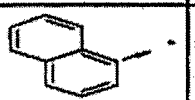
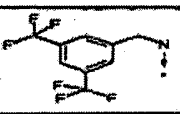
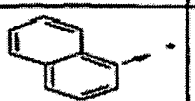
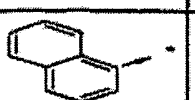
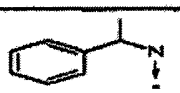
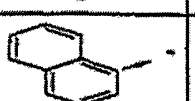
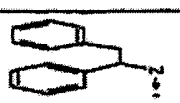
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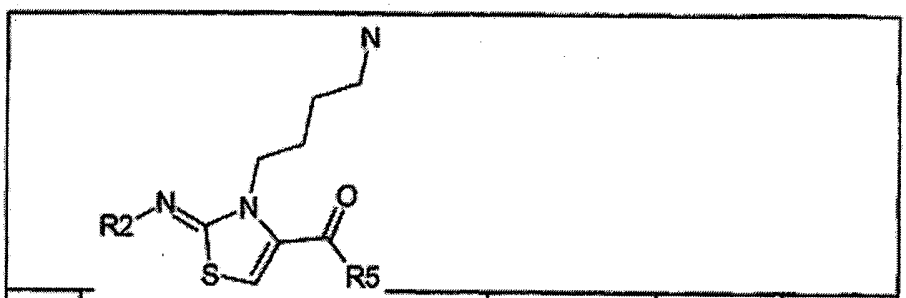
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1613			84,1	4,84	545,22
1614			77,7	4,34	459,30
1615			90,6	3,95	423,29
1616			91,8	4,6	499,35
1617			91,9	4,86	519,27
1618			62	4,6	545,3
1619			91,7	4,28	449,32
1620			63,1	4,62	483,29
1621			83,8	4,41	431,26
1622			64,2	4,55	445,26
1623			48,9	4,66	465,21
1624			89	4,46	449,27

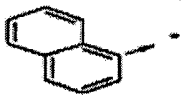
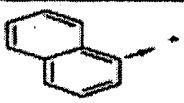
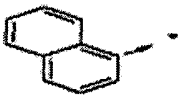
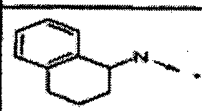
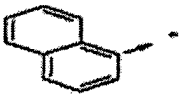
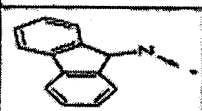
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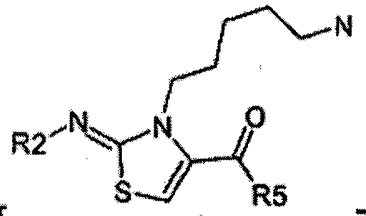
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1625			56,7	4,94	515,24
1626			78,4	4,65	445,25
1627			44,5	4,72	465,21
1628			84,7	5,01	515,24
1629			73,9	4,5	476,27
1630			76,8	4,74	465,21
1631			88,6	5,02	515,24
1632			90,6	5,05	499,19
1633			89,4	5,35	567,21
1634			80,6	4,88	481,28
1635			90,6	4,49	445,26
1636			91,1	5,14	521,28

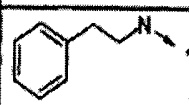
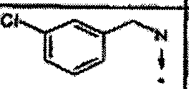
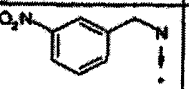
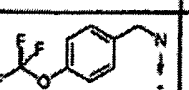
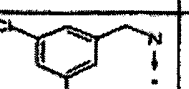
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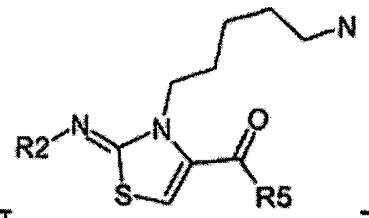
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1637			91,2	5,38	541,23
1638			90	5,1	567,3
1639			92,9	4,84	471,28
1640			88,3	5,13	505,28

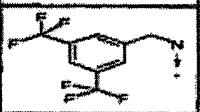
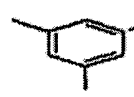
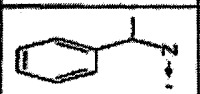
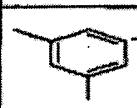
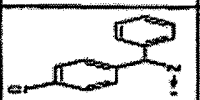
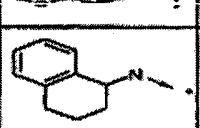
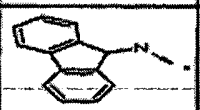
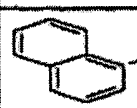
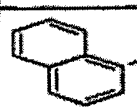
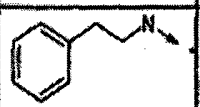
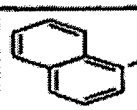
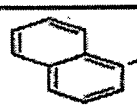
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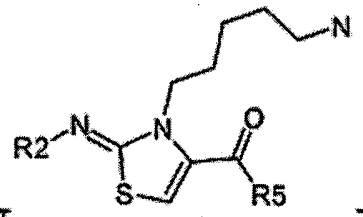


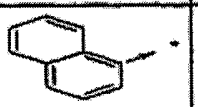
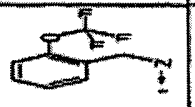
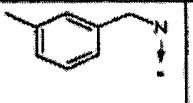
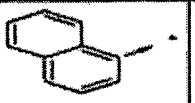
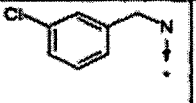
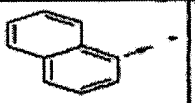
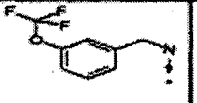
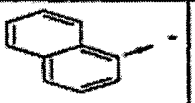
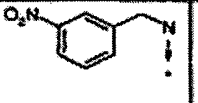
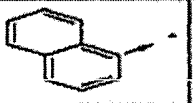
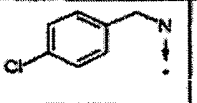
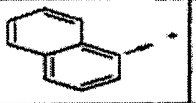
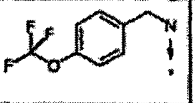
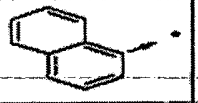
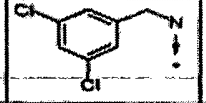
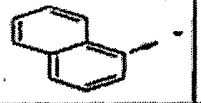
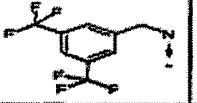
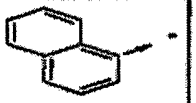
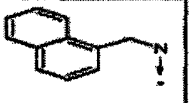
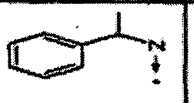
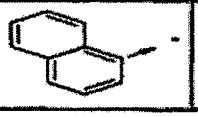
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1641			83,5	3,86	423,29
1642			81,9	4	437,30
1643			81,1	4,07	457,25
1644			89,9	3,89	441,27
1645			91,5	4,35	507,27
1646			70,6	4,08	437,31
1647			73,2	4,14	457,26
1648			91,7	4,42	507,27
1649			61,9	3,96	468,26
1650			82,6	4,16	457,25
1651			78,5	4,46	507,26
1652			80	4,46	491,21

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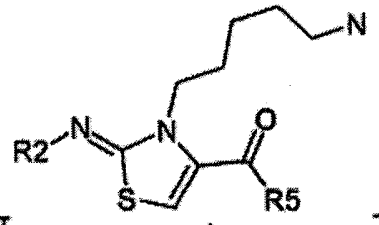


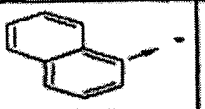
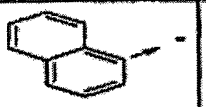
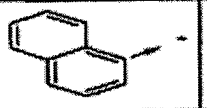
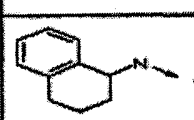
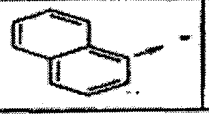
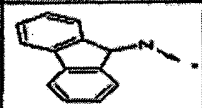
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1653			80,7	4,78	559,24
1654			90,3	4,28	473,33
1655			91,4	3,93	437,30
1656			93,5	4,55	513,33
1657			92,8	4,82	533,27
1658			58	4,5	559,3
1659			92,1	4,24	463,32
1660			92,2	4,53	497,29
1661			36,9	4,42	445,25
1662			31	4,56	459,26
1663			38,9	4,67	479,24
1664			43,4	4,47	463,27



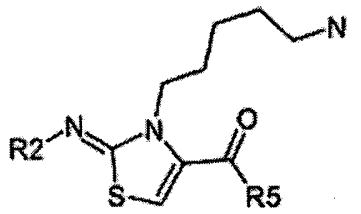
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1665			47,9	4,98	529,2
1666			32,1	4,66	459,28
1667			23	4,74	479,23
1668			38,1	5,02	529,25
1669			35,5	4,51	490,27
1670			47,1	4,74	479,23
1671			37,1	5,04	529,25
1672			60,9	5,07	513,19
1673			82,8	5,34	581,23
1674			20,5	4,91	495,27
1675			72	4,52	459,28
1676			91,1	5,14	535,30

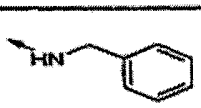
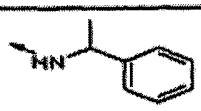
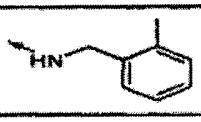
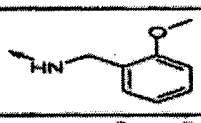
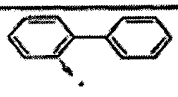
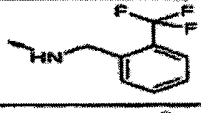
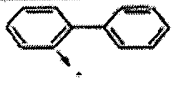
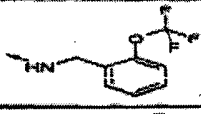
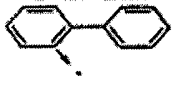
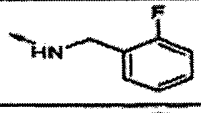
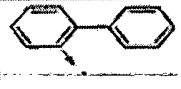
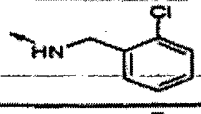
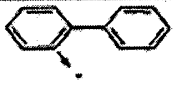
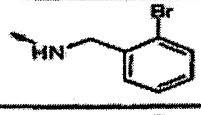
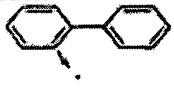
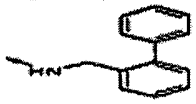
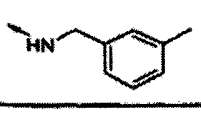
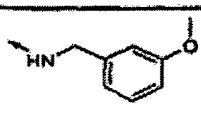
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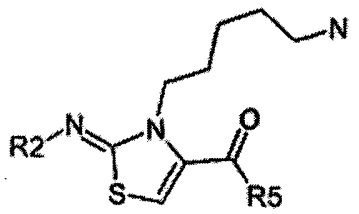
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]$^+$
1677			89,3	5,4	555,23
1678			52	5,1	581,3
1679			91,3	4,84	485,31
1680			71,7	5,14	519,29

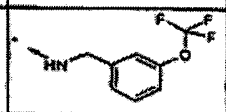
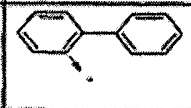
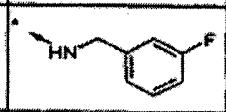
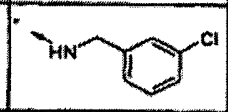
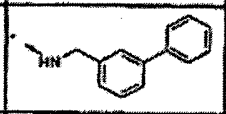
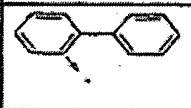
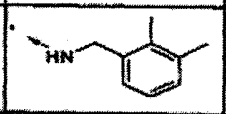
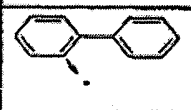
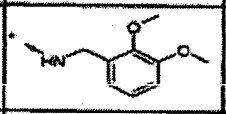
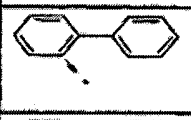
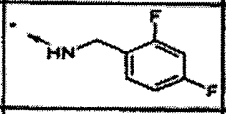
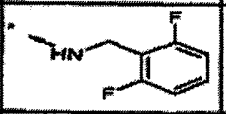
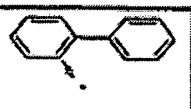
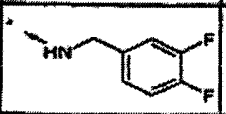
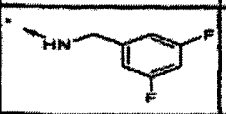
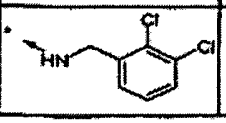
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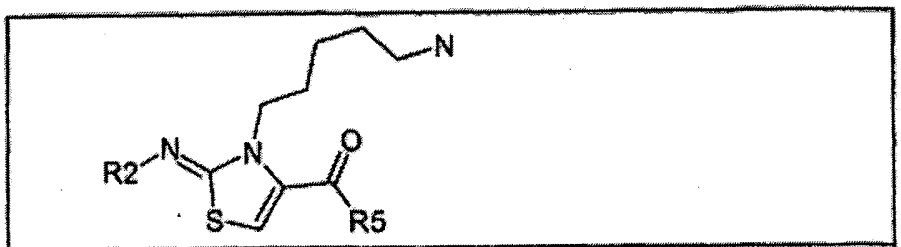
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]+
1681			72,7	4,26	471,34
1682			76,3	4,36	485,34
1683			51,6	4,47	485,33
1684			33,6	4,39	501,32
1685			79,9	4,7	539,29
1686			76	4,77	555,28
1687			53,2	4,34	489,30
1688			59,2	4,51	505,27
1689			74,7	4,57	549,21
1690			82	4,84	547,34
1691			68,8	4,49	485,32
1692			73,4	4,25	501,37

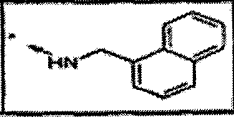
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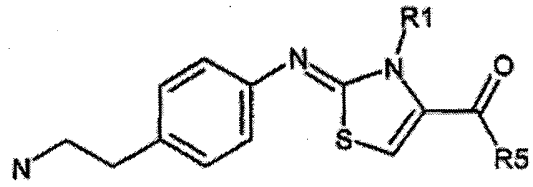
Př.	R2	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1693			75,0	4,83	555,27
1694			44,5	4,39	489,30
1695			42,7	4,57	505,25
1696			79,8	4,97	547,32
1697			78,9	4,56	499,39
1698			70,8	4,27	531,36
1699			77,5	4,35	507,33
1700			78,9	4,34	507,33
1701			75,8	4,27	507,32
1702			74,9	4,41	507,32
1703			75,3	4,49	507,29
1704			73,5	4,75	539,22

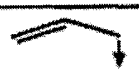
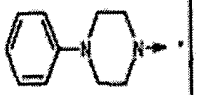
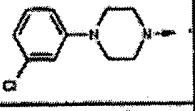
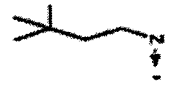
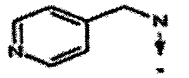
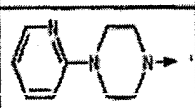
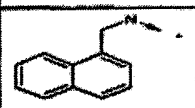
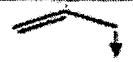
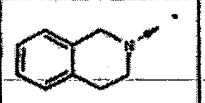
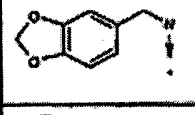
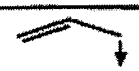
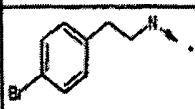
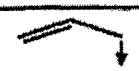
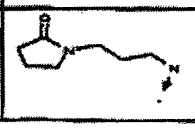
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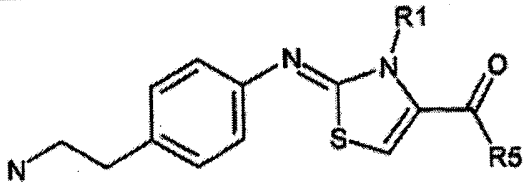


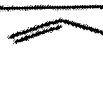
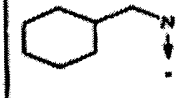
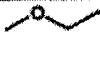
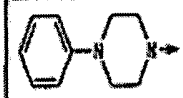
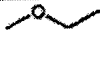
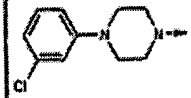
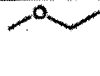
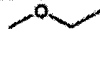
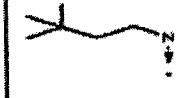
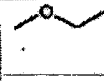
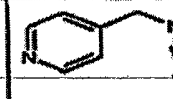
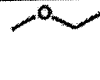
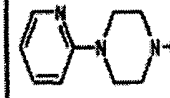
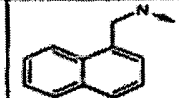
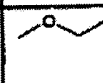
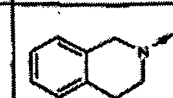
Př.	R2	R5	Čistota(%)	Ret.(min)	[M+H]⁺
1705			82,9	4,7	521,31

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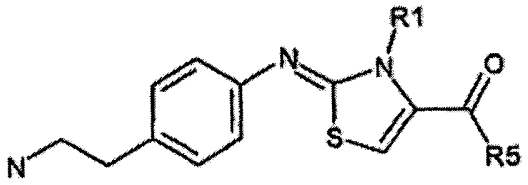


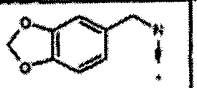
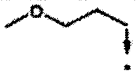
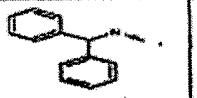
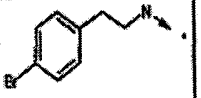
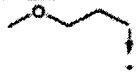
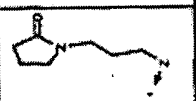
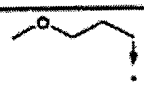
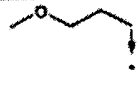
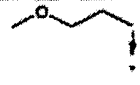
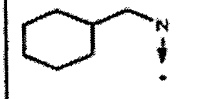
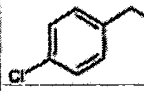
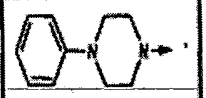
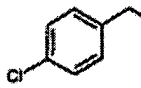
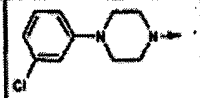
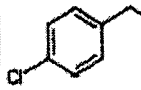
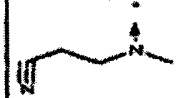
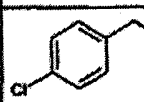
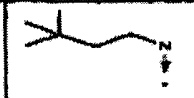
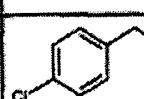
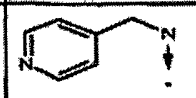
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1706			87,3	3,8	448,31
1707			86,0	4,3	482,24
1708			90,0	2,4	370,24
1709			76,6	3,88	387,26
1710			53,2	3,0	394,2
1711			91,2	2,3	449,29
1712			87,7	4,13	443,29
1713			88,3	3,7	419,28
1714			70,8	3,5	437,25
1715			87,0	4,4	469,30
1716			82,5	4,12	485,20
1717			88,1	2,59	428,29



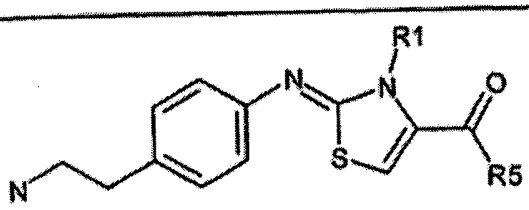
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1718			88,7	2,8	490,35
1719			79,0	4,68	529,23
1720			78,0	3,94	399,29
1721			87,4	3,7	480,32
1722			83,1	4,14	514,28
1723			89,1	2,44	402,24
1724			81,5	3,73	419,3
1725			56,1	3,0	416,2
1726			90,1	2,3	481,33
1727			87,3	3,96	475,31
1728			75,2	2,9	448,3
1729			85,7	3,61	451,29

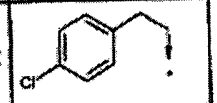
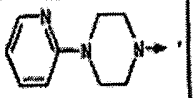
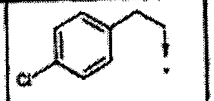
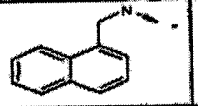
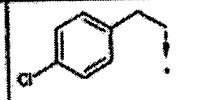
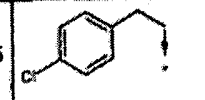
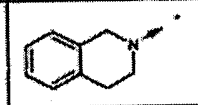
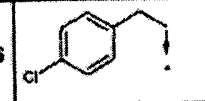
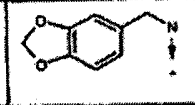
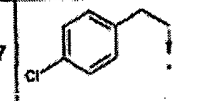
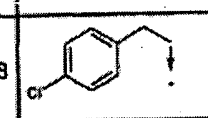
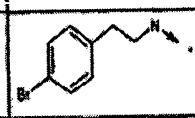
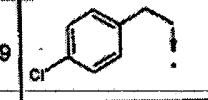
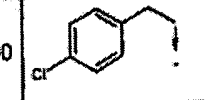
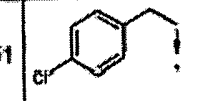
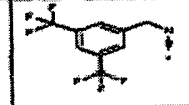
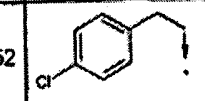
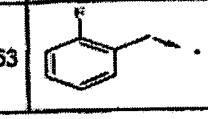
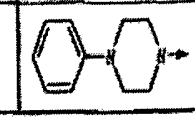
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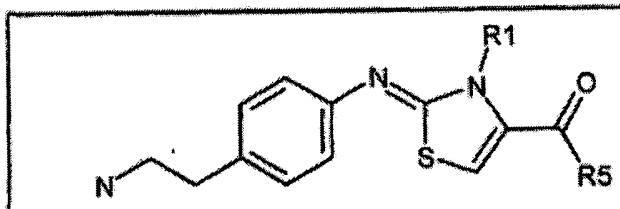
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1730			74,5	3,37	469,28
1731			83,7	4,22	501,32
1732			86,7	3,95	517,20
1733			80,6	2,61	460,32
1734			80,8	2,8	522,35
1735			74,0	4,48	561,23
1736			81,2	3,8	431,31
1737			87,1	4,76	546,27
1738			85,5	5,16	580,24
1739			85,5	3,72	468,24
1740			82,1	4,74	485,29
1741			80,7	3,04	492,24

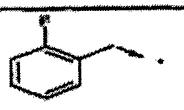
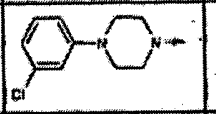
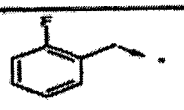
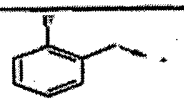
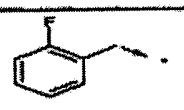
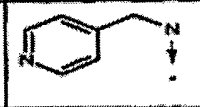
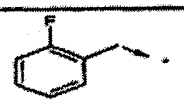
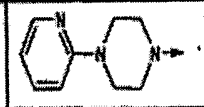
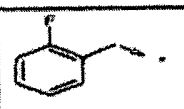
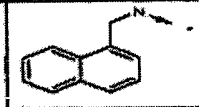
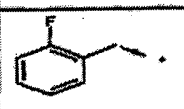
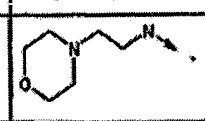
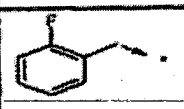
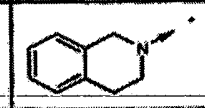
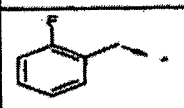
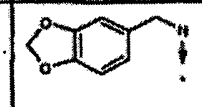
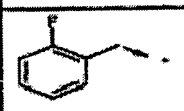
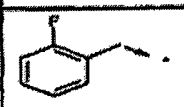
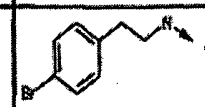
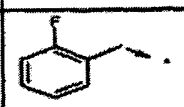
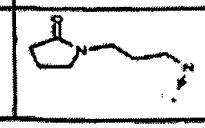
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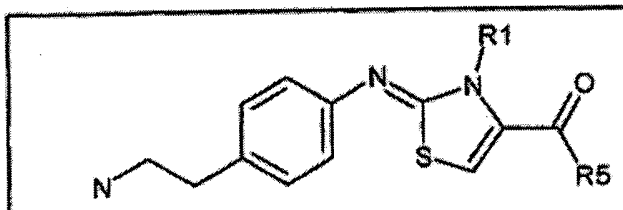
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1742			87,7	3,4	547,28
1743			81,9	4,96	541,23
1744			55,2	2,9	514,27
1745			87,2	4,7	517,25
1746			73,7	4,39	535,21
1747			84,3	5,22	567,25
1748			74,7	4,9	583,16
1749			76,8	3,53	526,28
1750			84,3	3,7	588,34
1751			74,4	5,41	627,20
1752			80,9	4,88	497,31
1753			83,4	4,53	516,2

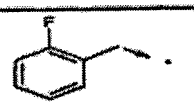
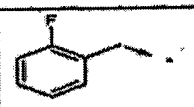
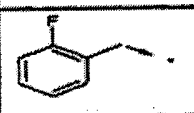
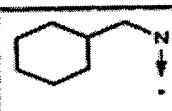
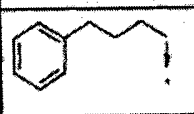
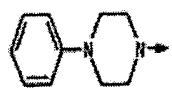
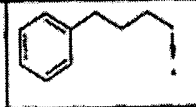
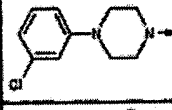
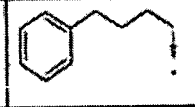
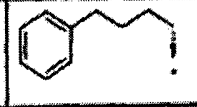
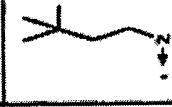
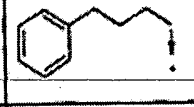
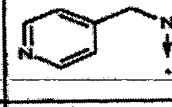
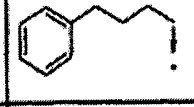
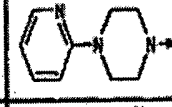
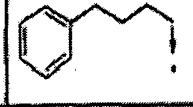
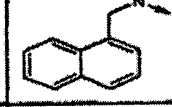
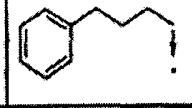
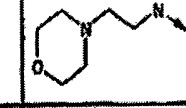
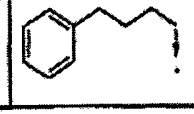
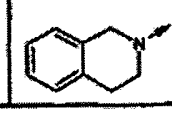
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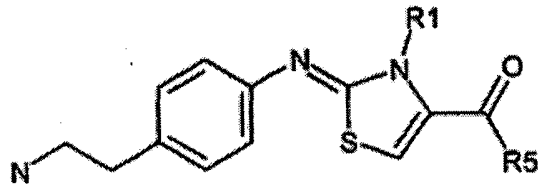
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1754			83,2	4,96	550,24
1755			84,1	3,39	438,25
1756			84,7	4,71	455,28
1757			56,6	2,8	462,24
1758			85,0	3,0	517,30
1759			84,6	4,9	511,26
1760			82,1	2,8	484,3
1761			84,4	4,44	487,27
1762			52,0	4,3	505,23
1763			84,5	5,12	537,28
1764			81,5	4,93	553,17
1765			80,2	3,34	496,29

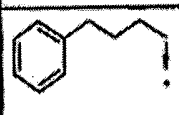
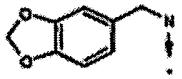
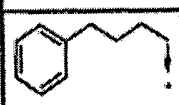
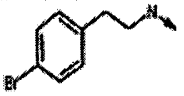
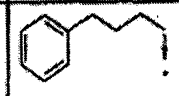
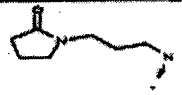
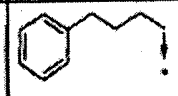
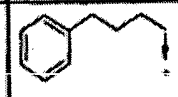
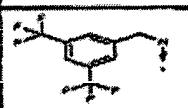
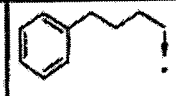
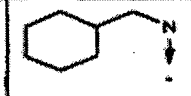
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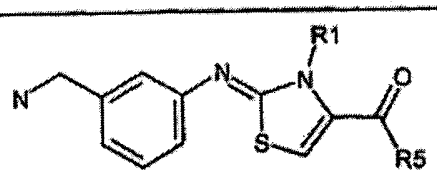
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1766			85,9	3,5	558,31
1767			53,4	5,39	597,22
1768			81,6	4,81	467,29
1769			83,5	3,5	540,32
1770			82,4	5,01	574,27
1771			80,9	3,72	462,30
1772			77,9	4,78	479,36
1773			79,3	3,11	486,32
1774			85,0	3,4	541,35
1775			85,3	4,9	535,31
1776			74,9	3,0	508,34
1777			83,9	4,58	511,33

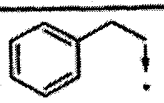
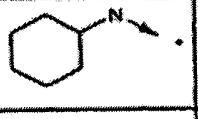
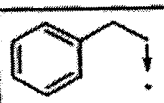
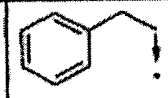
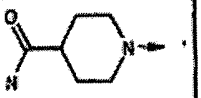
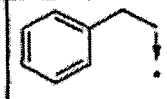
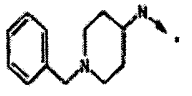
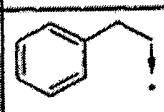
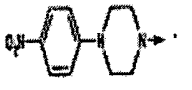
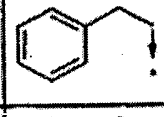
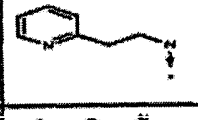
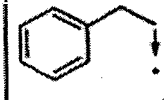
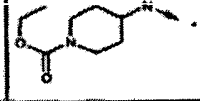
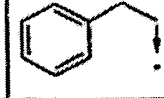
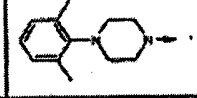
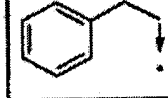
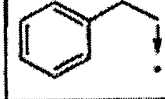
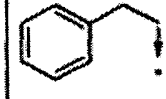
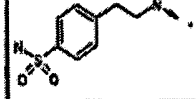
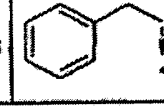
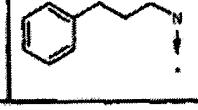
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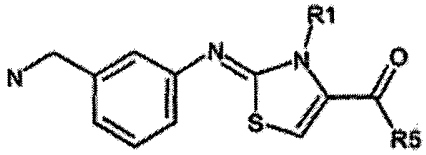
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1778			69,1	4,4	529,3
1779			83,1	5,1	561,3
1780			81,8	4,9	577,23
1781			83,6	3,64	520,34
1782			80,9	3,7	582,4
1783			68,0	5,34	621,28
1784			76,3	4,85	491,36

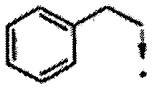
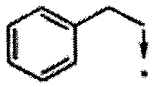
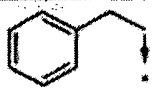
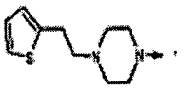
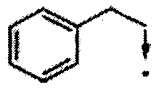
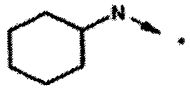
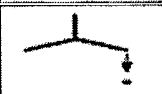
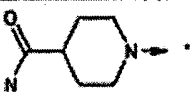
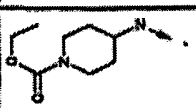
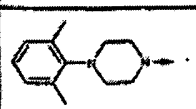
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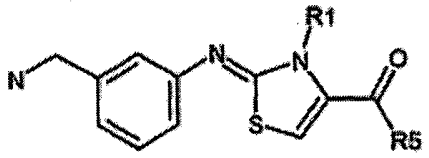
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1785			77,9	4,44	435,25
1786			78,8	4,83	437,30
1787			79,5	3,13	464,27
1788			80,3	3,28	526,38
1789			86,6	4,67	543,32
1790			74,8	2,9	458,32
1791			81,7	3,99	508,34
1792			86,9	5,41	526,38
1793			86,4	4,85	511,27
1794			82,2	5,07	533,35
1795			83,1	3,55	536,28
1796			82,3	4,66	471,3

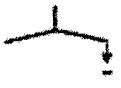
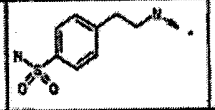
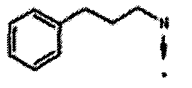
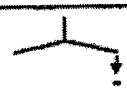
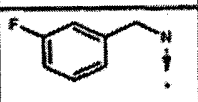
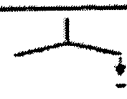
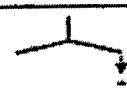
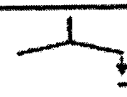
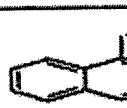
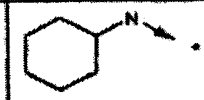
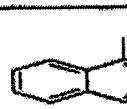
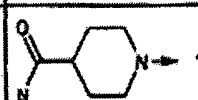
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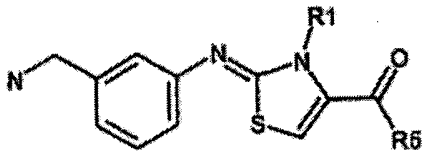
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1797			86,3	4,41	461,31
1798			85,1	4,95	505,33
1799			76,0	3,5	532,3
1800			81,1	4,87	483,34
1801			68,62	3,96	387,33
1802			73,4	4,39	389,33
1803			81,2	2,57	416,32
1804			79,2	2,9	478,3
1805			83,2	4,26	495,34
1806			70,2	2,5	410,3
1807			73,3	3,6	460,37
1808			75,0	5,01	478,39

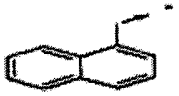
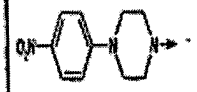
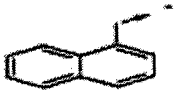
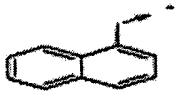
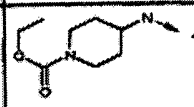
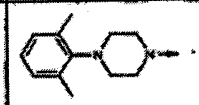
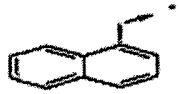
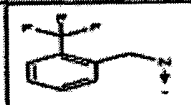
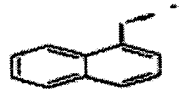
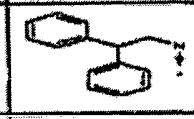
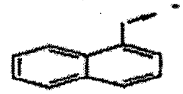
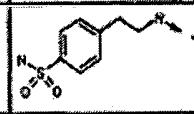
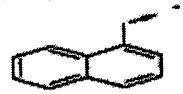
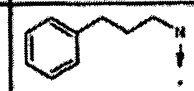
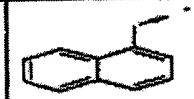
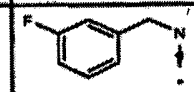
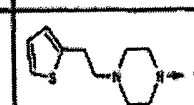
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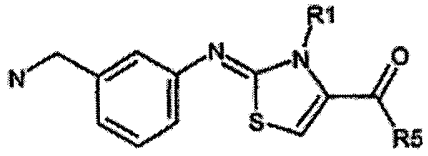
Pf.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1809			70,3	4,45	463,31
1810			83,9	4,73	485,37
1811			76,5	3,14	488,31
1812			79,1	4,28	423,35
1813			79,2	3,99	413,29
1814			75,5	4,55	457,33
1815			67,7	3,1	484,3
1816			62,7	4,44	435,33
1817			85,7	5,02	471,33
1818			70,2	5,31	473,37
1819			86,6	3,59	500,35
1820			83,8	3,7	562,4

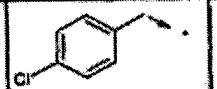
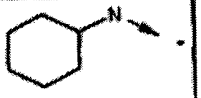
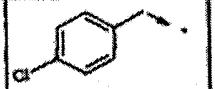
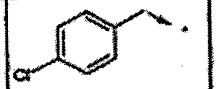
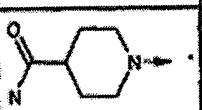
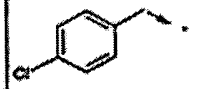
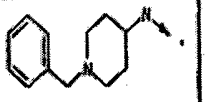
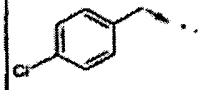
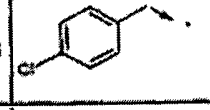
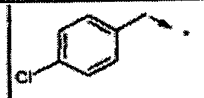
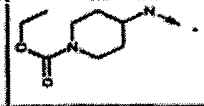
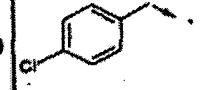
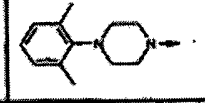
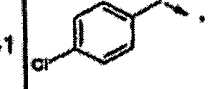
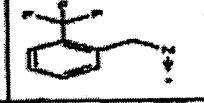
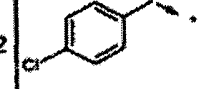
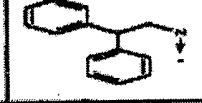
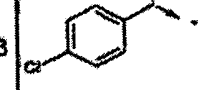
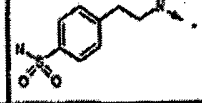
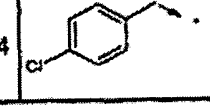
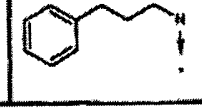
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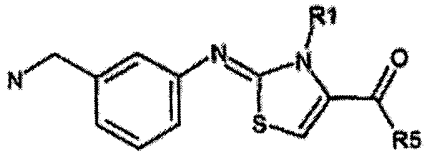
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1821			88,5	5,04	579,32
1822			39,8	3,3	494,3
1823			85,8	4,55	544,33
1824			86,4	5,78	562,36
1825			84,3	5,27	547,26
1826			69,7	5,58	569,32
1827			70,3	4,17	572,27
1828			85,4	5,17	507,34
1829			82,3	4,91	497,28
1830			82,4	5,41	541,29
1831			79,4	3,8	568,3
1832			86,9	5,31	519,33

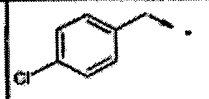
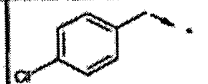
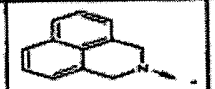
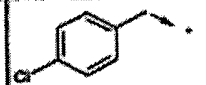
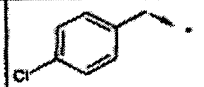
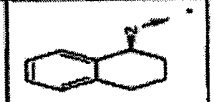
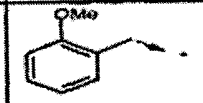
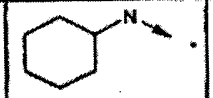
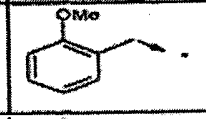
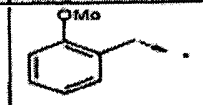
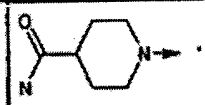
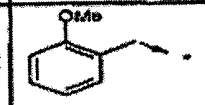
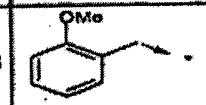
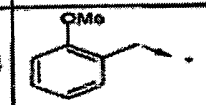
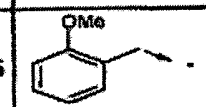
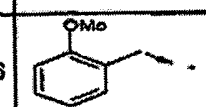
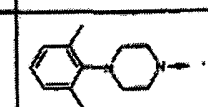
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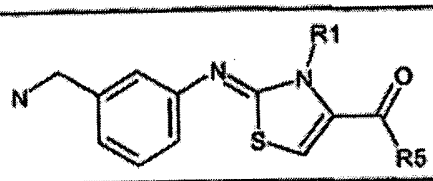
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1833			86,3	4,99	455,27
1834			84,5	5,3	457,30
1835			88,3	3,42	484,27
1836			83,6	3,65	546,29
1837			88,8	4,91	563,24
1838			65,2	3,3	478,24
1839			87,6	4,5	528,30
1840			90,4	5,68	546,30
1841			82,8	5,31	531,23
1842			68,2	5,57	553,28
1843			72,4	4,11	556,21
1844			83,9	5,15	491,29

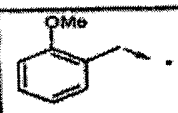
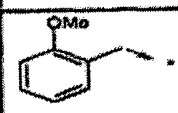
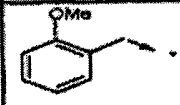
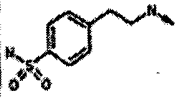
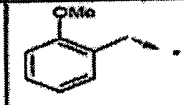
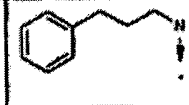
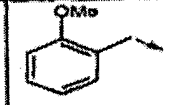
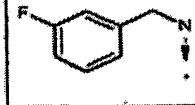
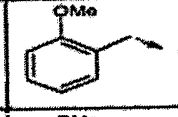
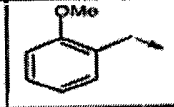
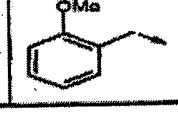
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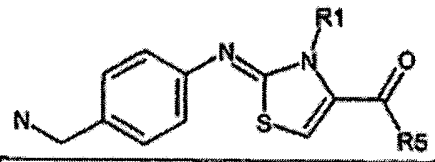
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1845			86,4	4,93	481,27
1846			86,3	5,29	525,25
1847			82,6	3,7	552,3
1848			88,1	5,3	503,29
1849			82,9	4,25	451,32
1850			82,1	4,64	453,35
1851			85,6	2,72	480,33
1852			82,9	3,16	542,35
1853			87,7	4,28	559,29
1854			75,3	2,82	474,33
1855			84,4	3,83	524,32
1856			87,0	5,0	542,36

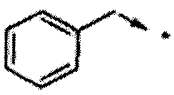
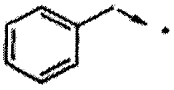
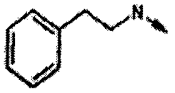
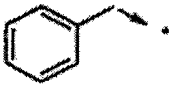
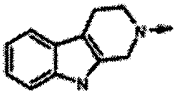
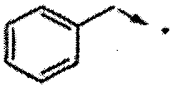
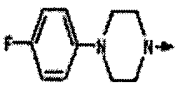
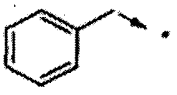
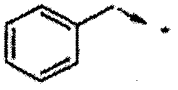
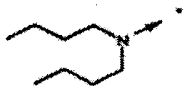
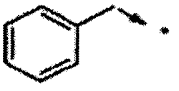
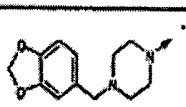
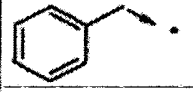
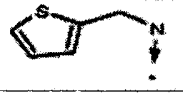
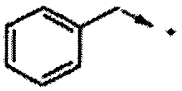
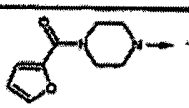
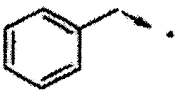
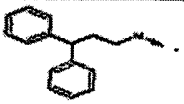
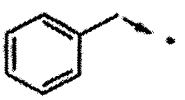
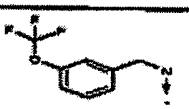
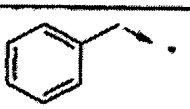
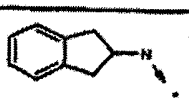
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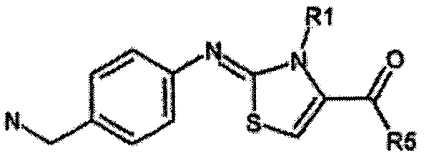
Pf.	R1	R5	Čistota(%)	Ret.(min)	[M+H]⁺
1857			82,6	4,73	527,28
1858			65,8	5,01	549,31
1859			76,4	3,49	552,26
1860			80,4	4,54	487,35
1861			81,3	4,28	477,30
1862			79,9	4,59	521,29
1863			77,5	3,2	548,3
1864			86,5	4,65	499,32

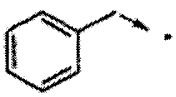
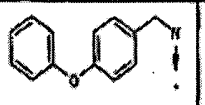
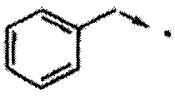
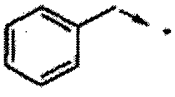
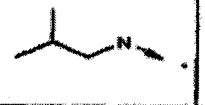
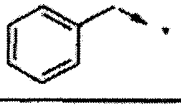
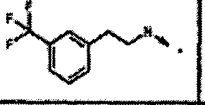
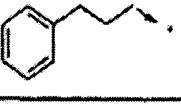
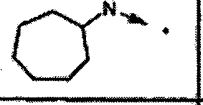
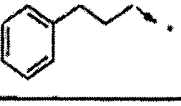
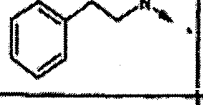
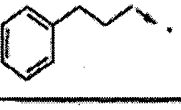
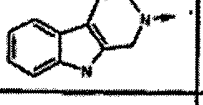
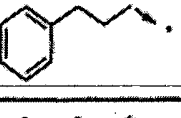
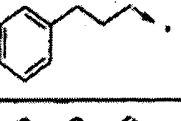
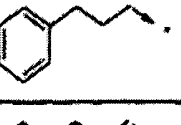
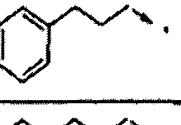
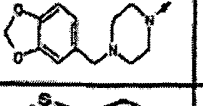
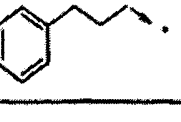
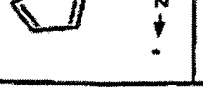
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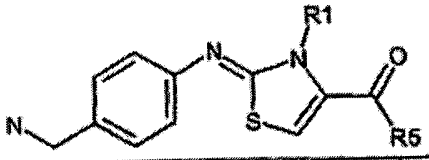
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1865			84,7	4,94	435,29
1866			85,0	4,66	443,26
1867			26,2	4,82	494,26
1868			88,4	4,8	502,28
1869			83,6	5,48	519,28
1870			63,17	5,3	451,33
1871			91,1	3,4	542,3
1872			35,7	4,48	435,20
1873			88,8	3,8	502,26
1874			87,1	5,41	533,29
1875			89,5	5,14	513,22
1876			47,8	4,82	455,24

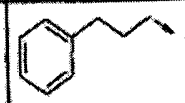
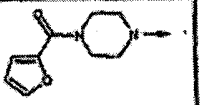
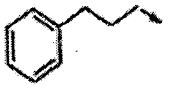
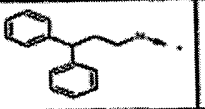
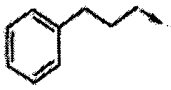
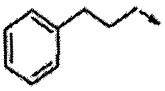
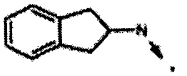
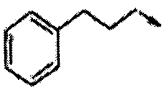
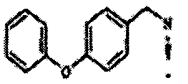
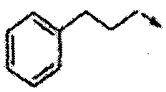
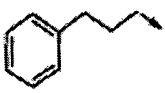
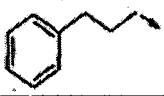
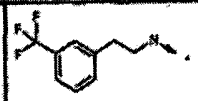
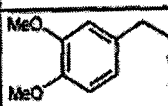
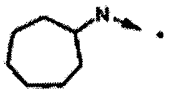
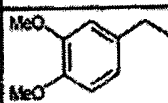
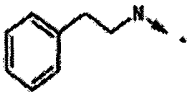
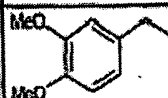
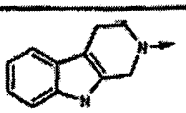
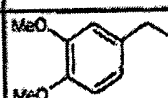
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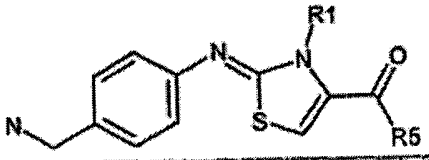
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1877			77,1	5,32	521,24
1878			81,8	5,31	505,26
1879			19,7	4,37	395,24
1880			61,4	5,14	511,22
1881			82,7	4,95	463,31
1882			82,2	4,71	471,27
1883			67,2	4,84	522,26
1884			87,7	4,9	530,28
1885			79,4	5,54	547,28
1886			80,8	5,3	479,34
1887			88,9	3,6	570,24
1888			30,2	4,53	463,23

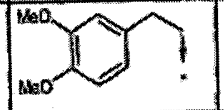
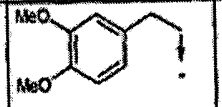
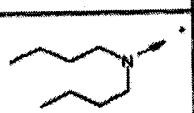
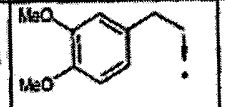
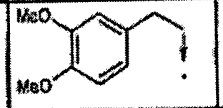
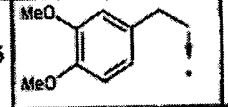
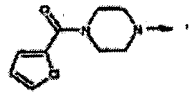
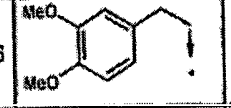
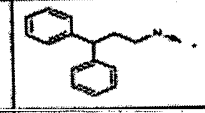
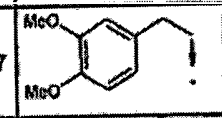
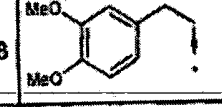
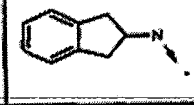
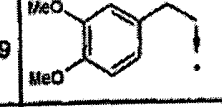
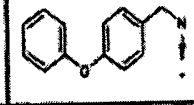
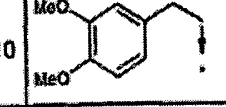
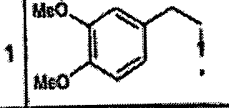
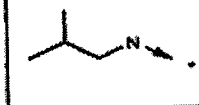
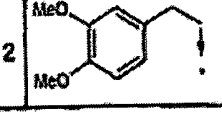
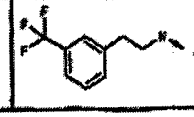
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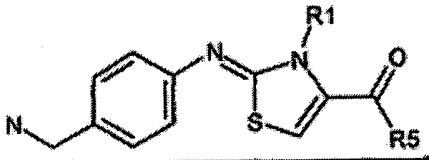


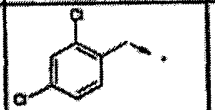
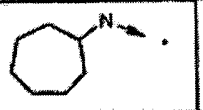
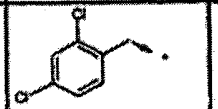
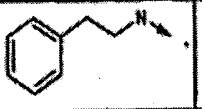
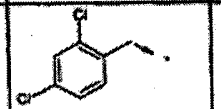
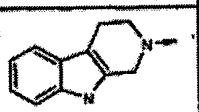
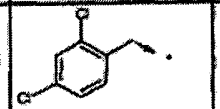
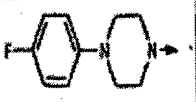
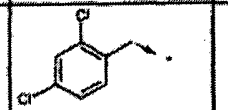
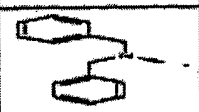
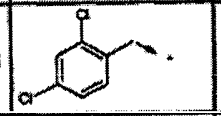
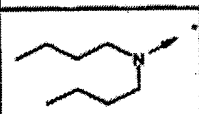
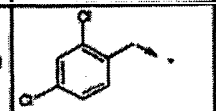
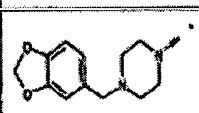
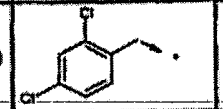
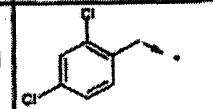
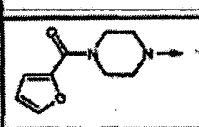
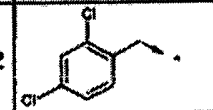
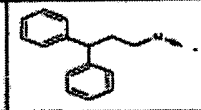
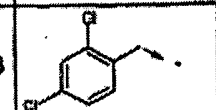
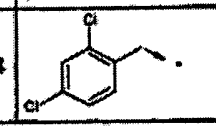
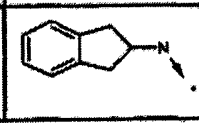
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1889			88,9	3,98	530,26
1890			84,2	5,42	561,30
1891			75,8	5,17	541,22
1892			85,8	4,86	483,28
1893			71,7	5,33	549,26
1894			86,6	5,34	533,29
1895			54,1	4,43	423,28
1896			47,7	5,16	539,26
1897			74,6	4,44	509,30
1898			77,6	4,2	517,27
1899			38,8	4,53	568,26
1900			80,1	4,5	576,3

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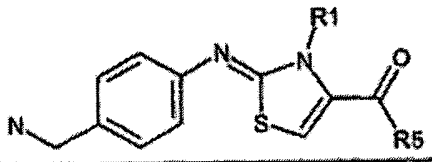


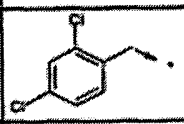
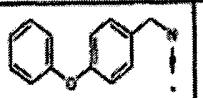
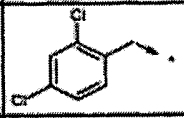
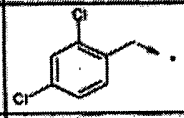
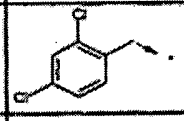
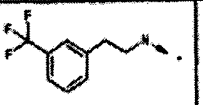
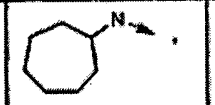
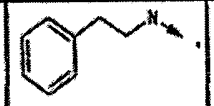
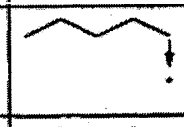
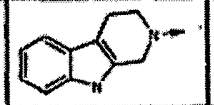
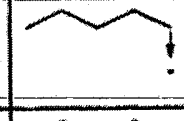
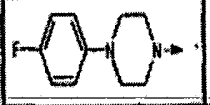
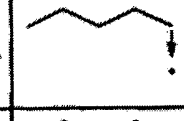
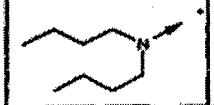
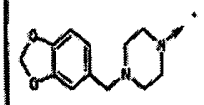
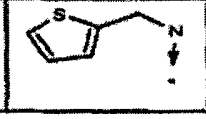
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1901			72,3	5,17	593,30
1902			77,0	4,88	525,34
1903			80,5	3,3	616,3
1904			34,6	4,03	509,21
1905			81,3	3,6	576,2
1906			77,1	5,04	607,31
1907			79,6	4,76	587,24
1908			77,8	4,38	529,28
1909			78,0	4,95	595,28
1910			81,1	4,88	579,29
1911			32,4	3,89	469,29
1912			49,3	4,7	585,26



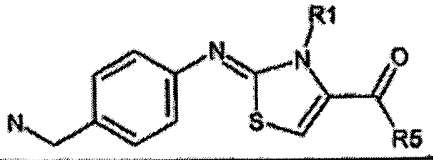
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1913			87,0	5,59	503,20
1914			88,5	5,3	511,15
1915			69,5	5,28	562,16
1916			89,4	5,3	570,1
1917			79,1	5,98	587,17
1918			82,4	5,84	519,23
1919			89,5	3,9	610,1
1920			27,2	5,12	503,11
1921			88,6	4,41	570,13
1922			86,4	5,91	601,19
1923			84,9	5,66	581,11
1924			86,4	5,44	523,13

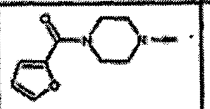
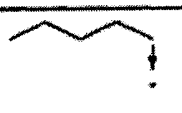
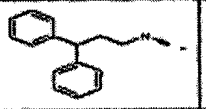
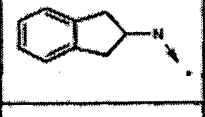
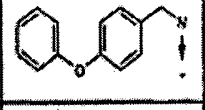
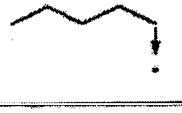
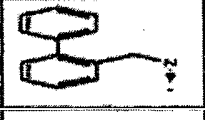
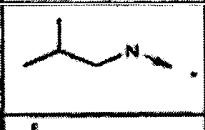
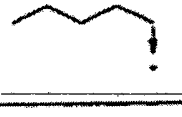
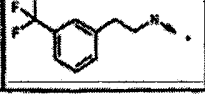
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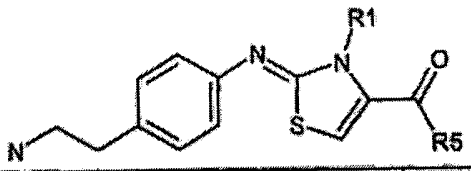
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1925			61,9	5,81	589,16
1926			84,7	5,85	573,15
1927			36,8	5,1	463,16
1928			76,4	5,68	579,13
1929			79,4	4,65	415,30
1930			84,5	4,41	423,29
1931			44,0	4,62	474,29
1932			86,1	4,65	482,3
1933			78,5	5,33	499,31
1934			79,6	5,06	431,33
1935			84,6	3,4	522,30
1936			54,6	4,2	415,21

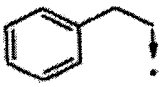
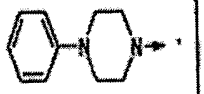
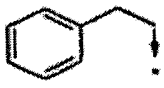
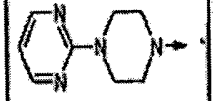
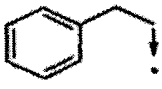
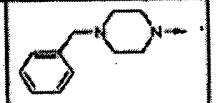
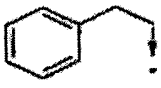
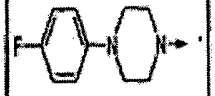
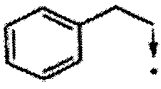
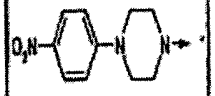
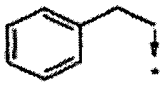
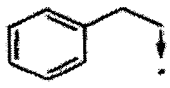
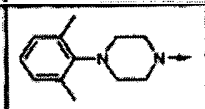
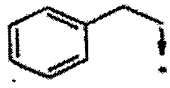
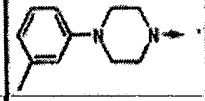
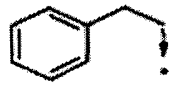
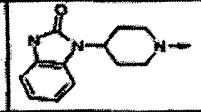
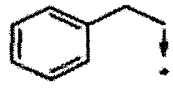
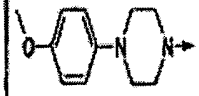
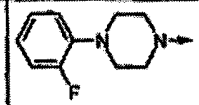
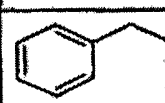
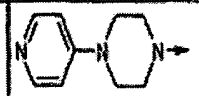
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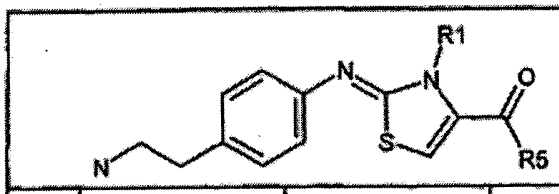


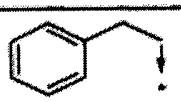
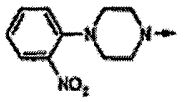
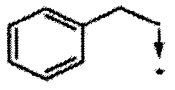
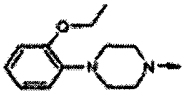
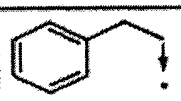
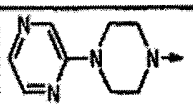
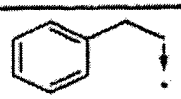
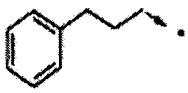
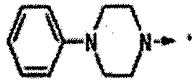
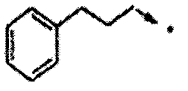
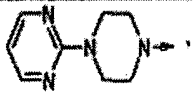
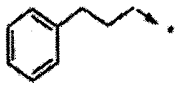
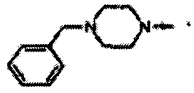
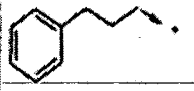
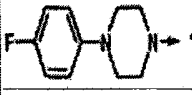
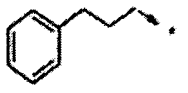
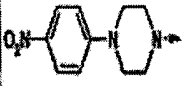
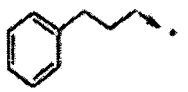
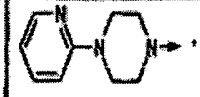
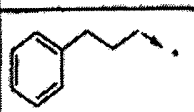
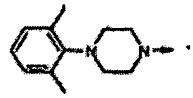
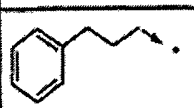
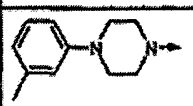
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1937			85,4	3,7	482,29
1938			83,5	5,21	513,32
1939			85,7	4,92	493,24
1940			83,0	4,58	435,29
1941			75,1	5,1	501,31
1942			88,2	5,1	485,31
1943			76,1	4,08	375,28
1944			81,1	4,9	491,28

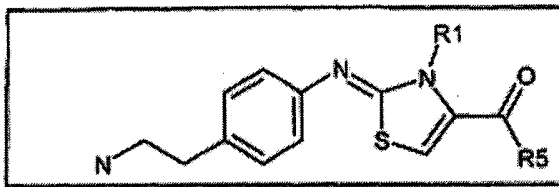
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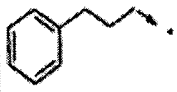
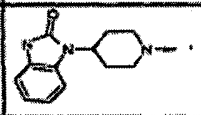
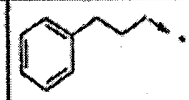
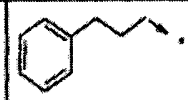
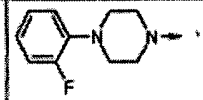
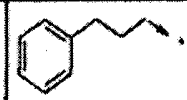
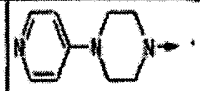
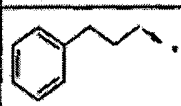
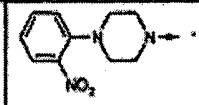
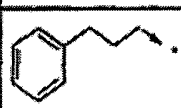
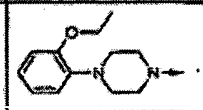
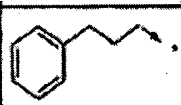
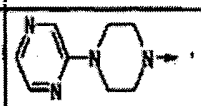
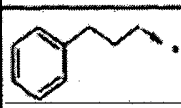
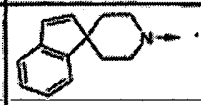
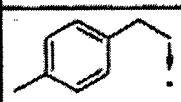
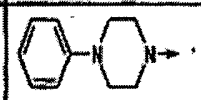
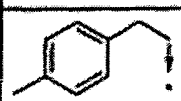
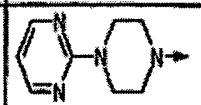
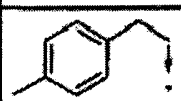
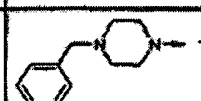
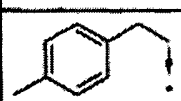


Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1945			84,3	4,24	512,26
1946			85,4	3,63	514,25
1947			86,8	3,1	526,27
1948			87,7	4,32	530,23
1949			87,5	4,24	557,23
1950			88,8	2,9	513,26
1951			84,5	4,92	540,28
1952			87,7	4,49	526,27
1953			62,5	3,66	567,26
1954			89	4,08	542,26
1955			87,7	4,38	530,24
1956			82,4	2,7	513,28

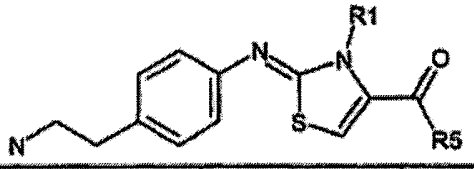


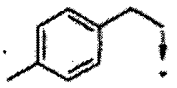
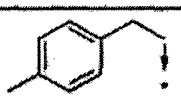
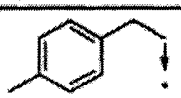
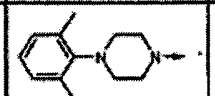
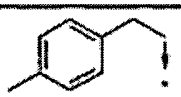
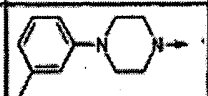
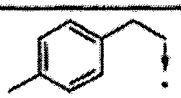
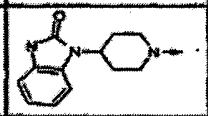
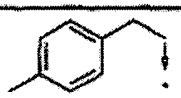
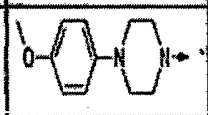
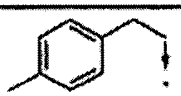
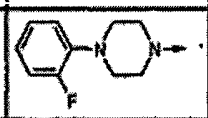
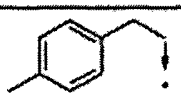
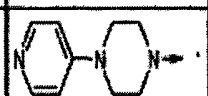
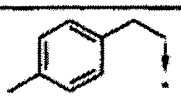
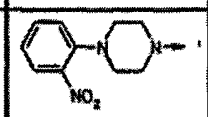
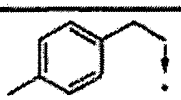
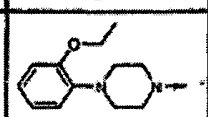
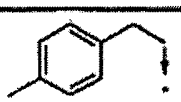
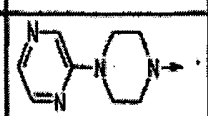
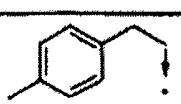
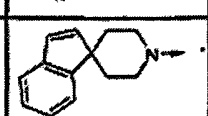
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1957			87,7	4,31	557,23
1958			91,0	4,44	556,27
1959			80,7	3,44	514,25
1960			68,6	4,67	535,24
1961			85,3	4,32	526,27
1962			83,0	3,75	528,25
1963			88,7	3,28	540,28
1964			86,8	4,37	544,25
1965			89,4	4,29	571,24
1966			86,9	3,1	527,25
1967			86,1	4,94	554,29
1968			87,6	4,54	540,27

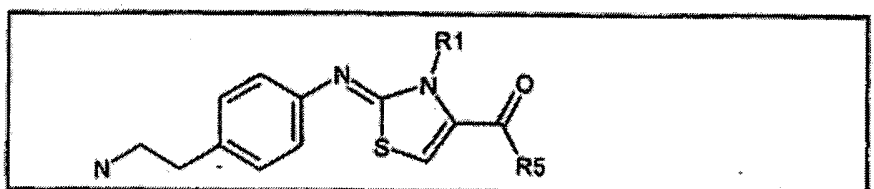


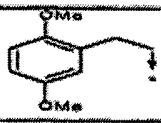
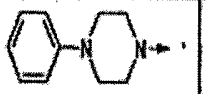
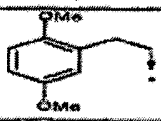
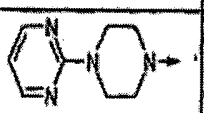
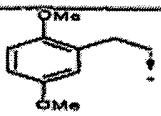
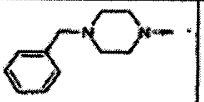
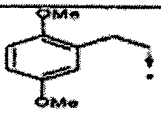
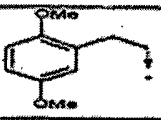
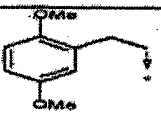
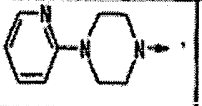
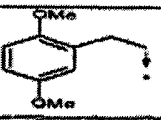
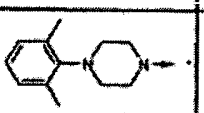
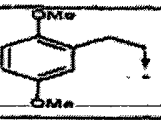
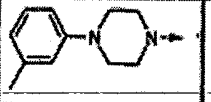
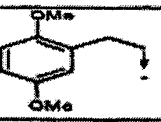
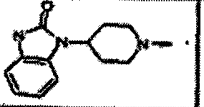
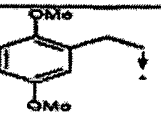
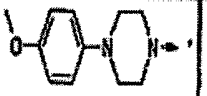
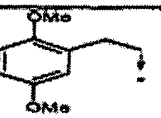
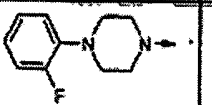
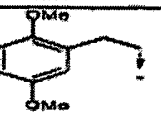
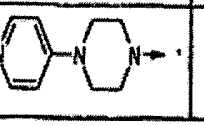
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
1969			65,4	3,76	581,27
1970			86,3	4,16	556,28
1971			86,0	4,43	544,25
1972			83,2	2,8	527,3
1973			84,8	4,38	571,24
1974			87,8	4,5	570,28
1975			80,9	3,55	528,26
1976			62,7	4,71	549,27
1977			85,7	4,41	526,29
1978			84,2	3,82	528,27
1979			87,4	3,28	540,28
1980			86,6	4,47	544,24

23.01.04

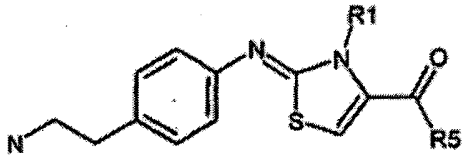


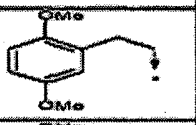
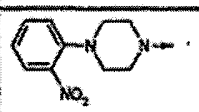
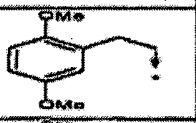
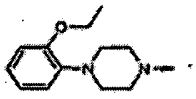
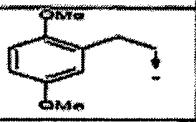
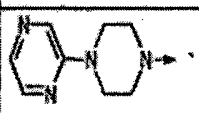
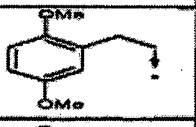
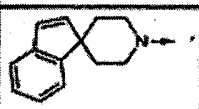
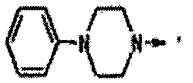
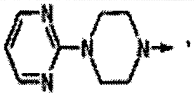
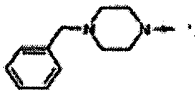
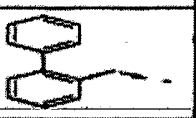
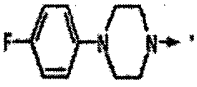
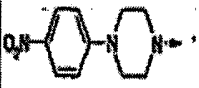
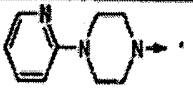
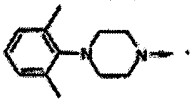
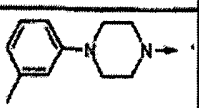
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1981			86,4	4,38	571,24
1982			85,9	3,1	527,27
1983			85,3	5,06	554,28
1984			85,3	4,66	540,28
1985			60,8	3,8	581,28
1986			86,1	4,25	556,28
1987			86,4	4,54	544,25
1988			75,9	2,86	527,28
1989			86,5	4,46	571,24
1990			88,4	4,6	570,29
1991			79,8	3,62	528,27
1992			63,2	4,82	549,26



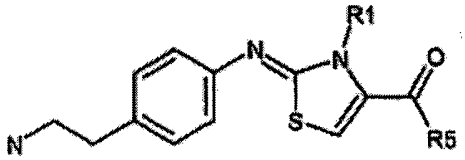
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
1993			81,8	4,15	572,25
1994			81,0	3,58	574,25
1995			83,5	3,08	586,3
1996			84,3	4,2	590,27
1997			85,3	4,12	617,26
1998			86,1	2,91	573,28
1999			85,5	4,74	600,31
2000			87,3	4,37	586,28
2001			68,4	3,6	627,28
2002			85,4	3,98	602,28
2003			83,1	4,26	590,27
2004			84,5	2,7	573,26

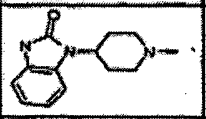
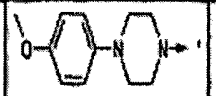
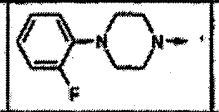
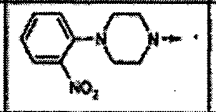
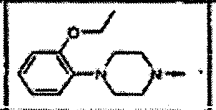
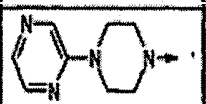
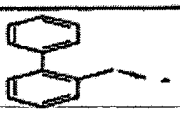
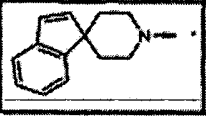
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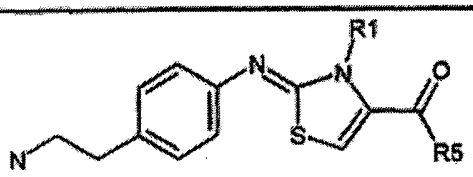
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
2005			85,9	4,2	617,27
2006			86,9	4,32	616,31
2007			81,2	3,4	574,24
2008			69,0	4,54	595,29
2009			82,1	4,72	574,25
2010			80,1	4,15	576,27
2011			83,9	3,53	588,27
2012			80,8	4,78	592,26
2013			83,0	4,68	619,26
2014			85,6	3,35	575,25
2015			82,9	5,41	602,30
2016			81,9	4,96	588,26

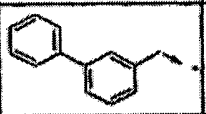
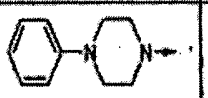
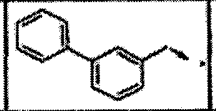
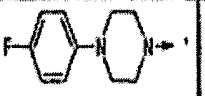
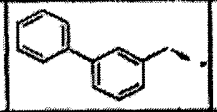
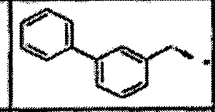
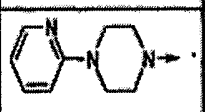
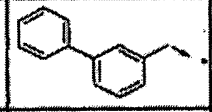
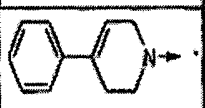
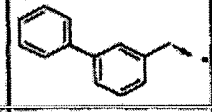
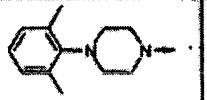
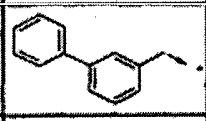
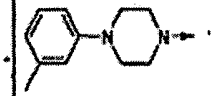
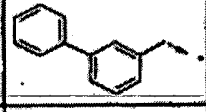
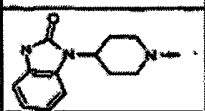
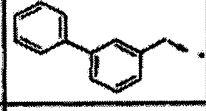
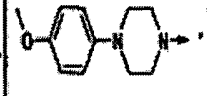
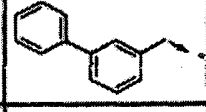
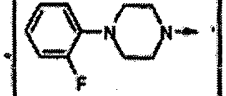
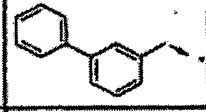
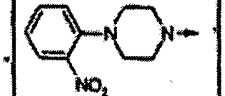
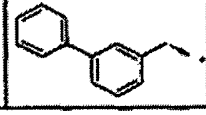
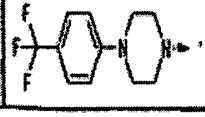
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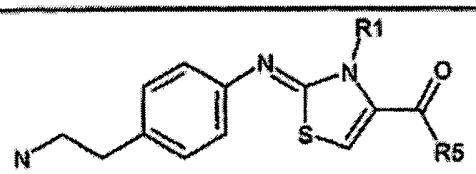
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
2017			58,6	4,09	629,29
2018			81,7	4,53	604,27
2019			81,4	4,84	592,26
2020			78,7	3,06	575,31
2021			83,9	4,74	619,25
2022			82,6	4,89	618,29
2023			79,5	3,9	576,27
2024			64,2	5,15	597,27

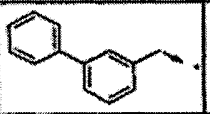
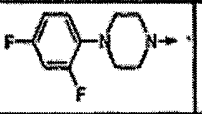
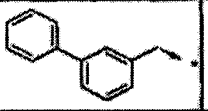
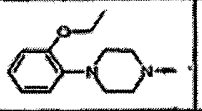
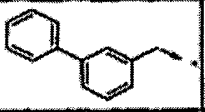
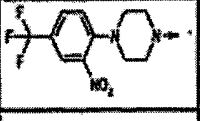
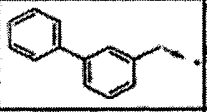
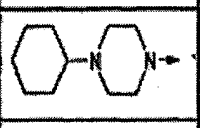
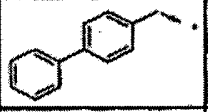
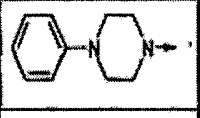
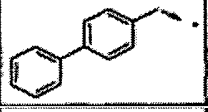
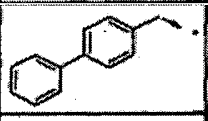
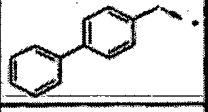
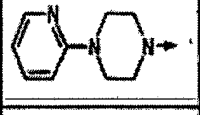
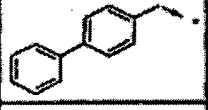
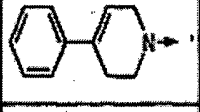
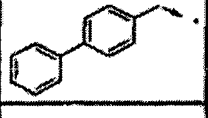
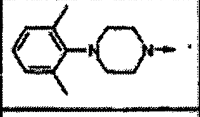
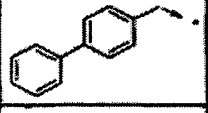
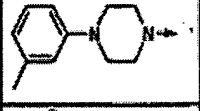
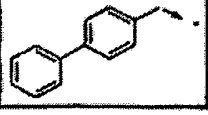
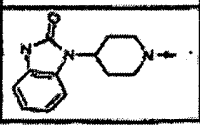
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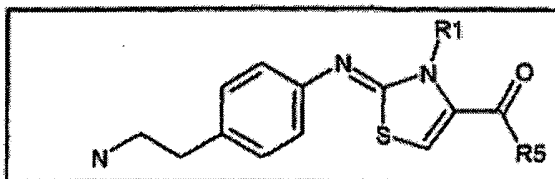


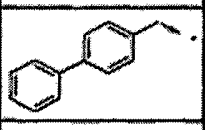
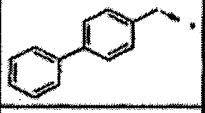
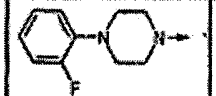
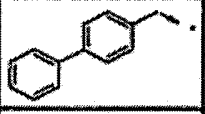
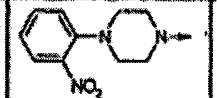
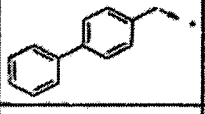
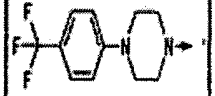
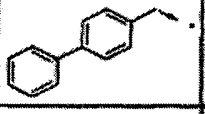
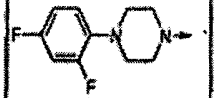
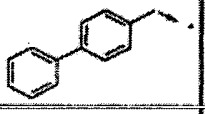
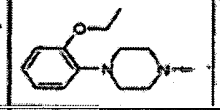
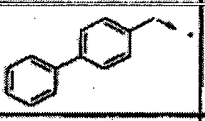
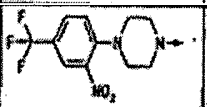
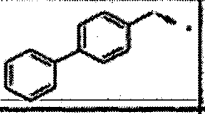
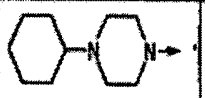
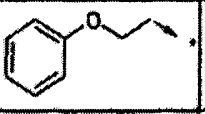
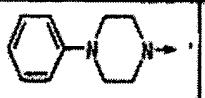
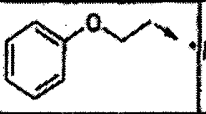
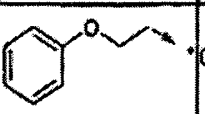
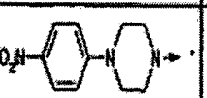
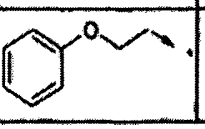
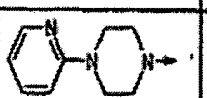
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
2025			88,8	4,94	574,23
2026			88,4	4,96	592,25
2027			87,7	4,86	619,24
2028			89,7	3,61	575,2
2029			70,4	5,13	571,25
2030			88,0	5,58	602,28
2031			87,8	5,15	588,26
2032			76,6	4,24	629,28
2033			88,6	4,7	604,27
2034			88,3	5,04	592,25
2035			89,5	4,96	619,24
2036			87,5	5,41	642,26

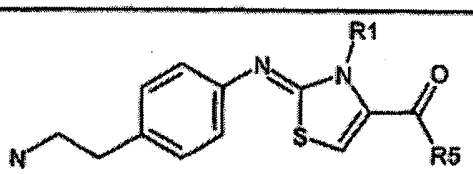
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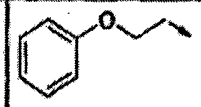
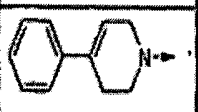
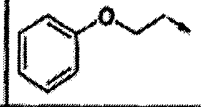
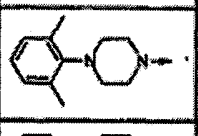
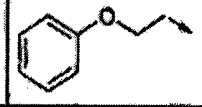
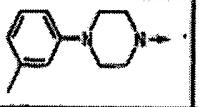
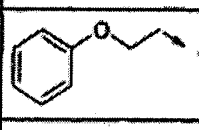
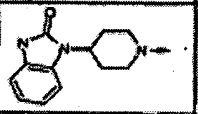
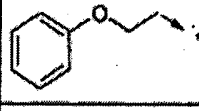
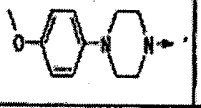
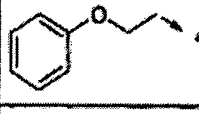
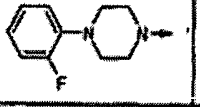
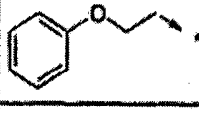
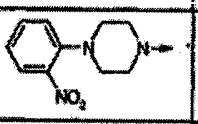
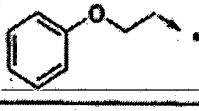
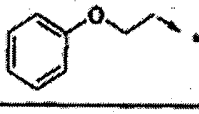
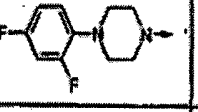
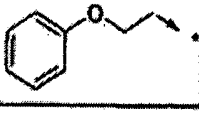
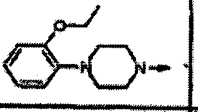
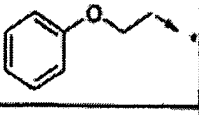
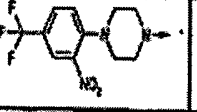
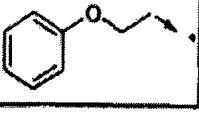
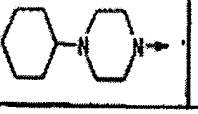


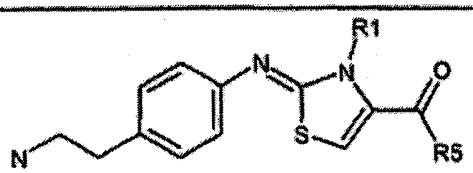
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
2037			88,9	5,12	610,24
2038			89,4	5,07	618,27
2039			88,7	5,42	687,24
2040			87,7	3,68	580,30
2041			85,2	4,89	574,23
2042			84,4	4,9	592,25
2043			84,7	4,78	619,23
2044			89,0	3,58	575,25
2045			61,5	5,16	571,22
2046			83,2	5,57	602,28
2047			84,4	5,1	588,25
2048			73,2	4,25	629,27

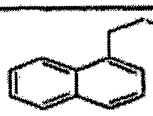
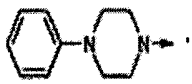
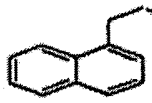
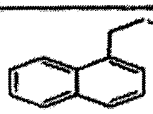
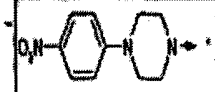
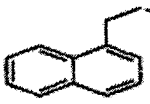
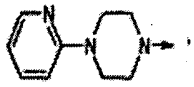
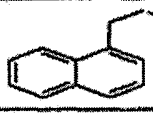
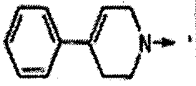
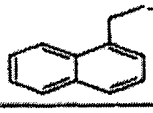
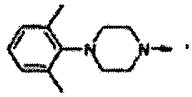
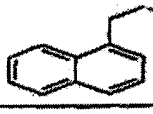
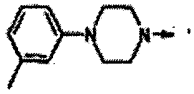
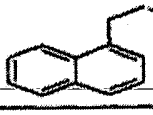
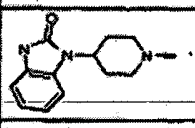
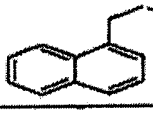
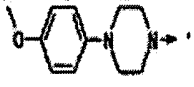
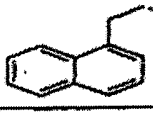
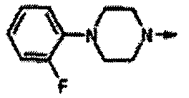
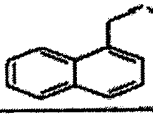
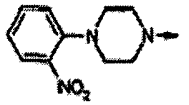
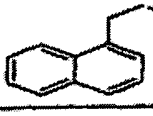
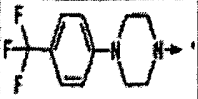


Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
2049			85,5	4,64	604,26
2050			85,6	4,99	592,2
2051			85,7	4,93	619,24
2052			86,2	5,34	642,25
2053			85,1	5,06	610,23
2054			84,6	5,06	618,27
2055			85,4	5,37	687,23
2056			85,8	3,68	580,30
2057			68,0	4,37	528,26
2058			86,3	4,41	546,22
2059			88,1	4,32	573,19
2060			86,1	3	529,25

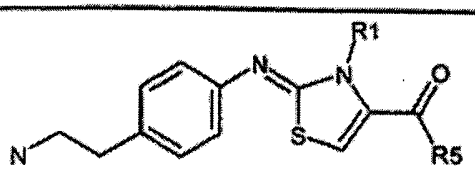


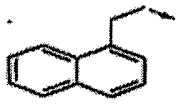
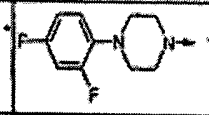
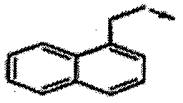
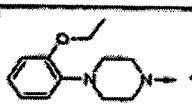
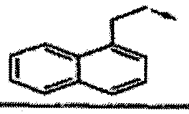
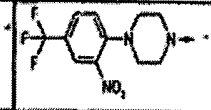
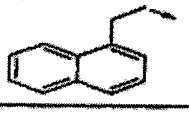
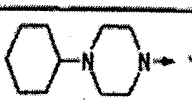
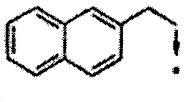
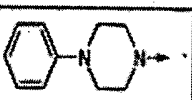
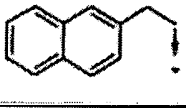
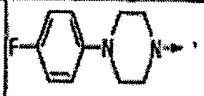
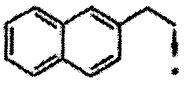
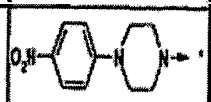
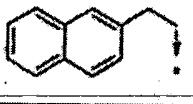
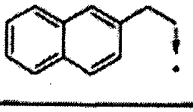
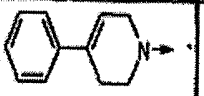
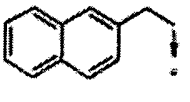
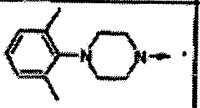
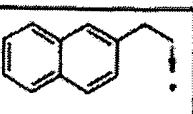
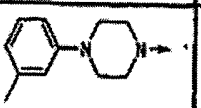
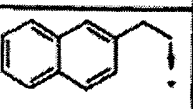
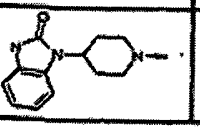
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
2061			67,2	4,56	525,25
2062			91,2	4,98	556,26
2063			87,8	4,56	542,26
2064			75,6	3,73	583,23
2065			88,7	4,16	558,23
2066			88,4	4,46	546,22
2067			87,4	4,4	573,20
2068			87,7	4,88	596,21
2069			87,9	4,56	564,21
2070			87,5	4,51	572,26
2071			88,8	4,91	641,20
2072			86,2	3,08	534,27



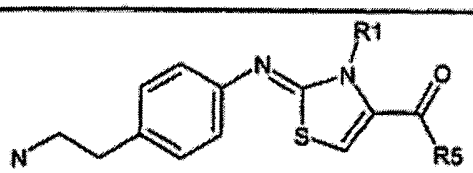
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
2073			71,7	4,78	562,25
2074			82,1	4,8	580,23
2075			82,6	4,68	607,23
2076			79,5	3,4	563,21
2077			67,5	4,92	559,23
2078			83,0	5,39	590,27
2079			82,5	4,98	576,26
2080			42,5	4,1	617,23
2081			86,9	4,58	592,26
2082			82,5	4,88	580,23
2083			81,4	4,77	607,23
2084			82,3	5,24	630,26

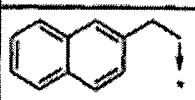
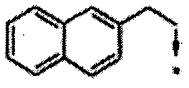
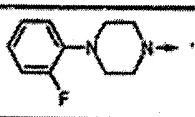
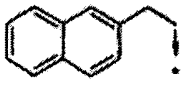
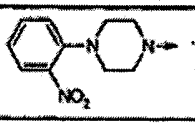
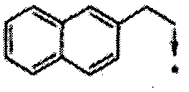
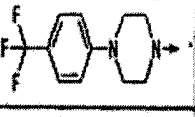
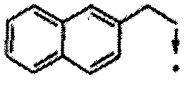
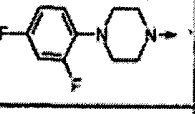
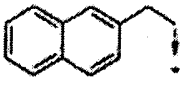
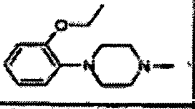
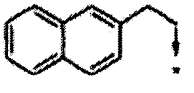
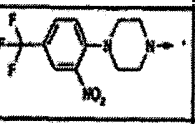
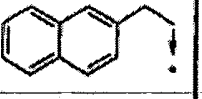
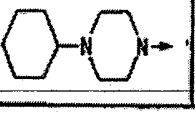
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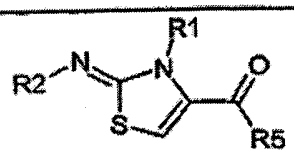
Př.	R1	R5	Čistota(%)	Ret.(min)	$[M+H]^+$
2085			83,5	4,97	598,20
2086			81,6	4,93	606,28
2087			82,7	5,25	675,23
2088			84,4	3,4	568,26
2089			67,0	4,64	562,24
2090			83,0	4,66	580,23
2091			83,6	4,54	607,22
2092			82,5	3,3	563,25
2093			84,2	4,8	559,22
2094			86,2	5,21	590,29
2095			83,2	4,82	576,28
2096			62,8	3,99	617,26

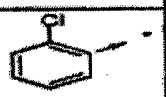
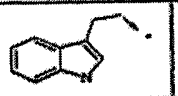
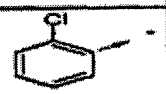
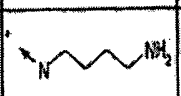
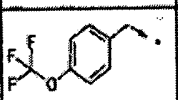
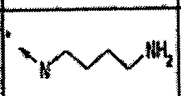
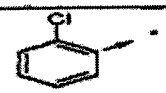
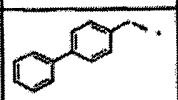
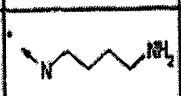
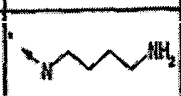
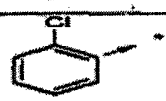
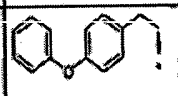
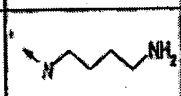
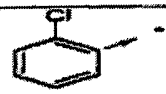
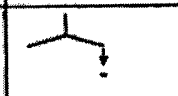
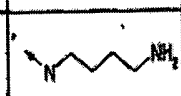
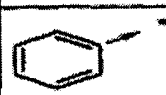
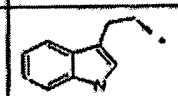
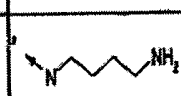
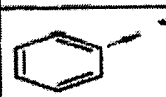
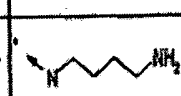
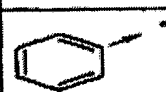
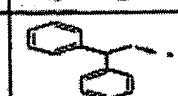
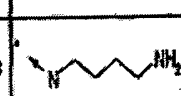
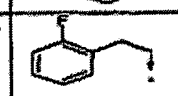
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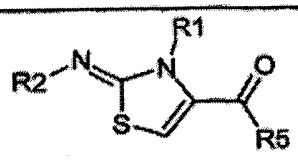
Př.	R1	R5	Čistota(%)	Ret.(min)	[M+H]+
2097			86,0	4,44	592,2
2098			85,8	4,72	580,26
2099			84,0	4,62	607,23
2100			83,4	5,09	630,26
2101			84,8	4,8	598,21
2102			83,7	4,78	606,29
2103			83,6	5,1	675,24
2104			5,6	3,05	568,28

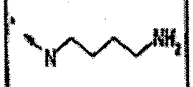
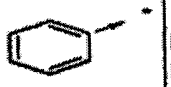
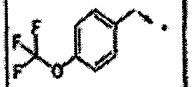
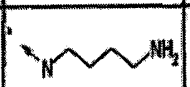
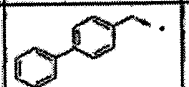
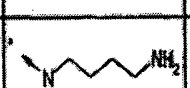
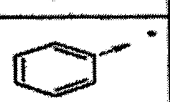
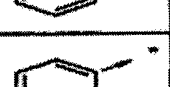
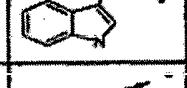
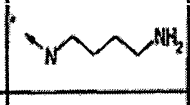
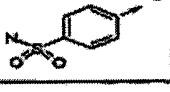
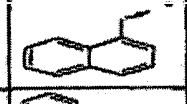
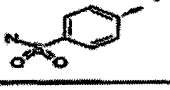
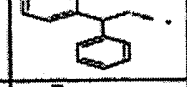
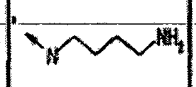
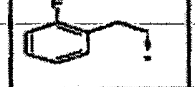
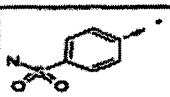
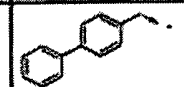
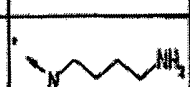
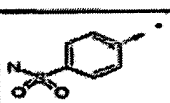
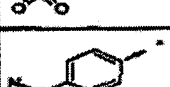
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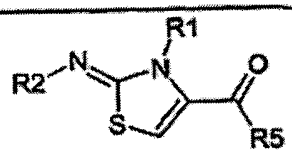
Pf.	R5	R2	R1	Čistota(%	Ret. (min)	[M+H]+
2105				81,5	4,9	468,27
2106				81,4	5,01	465,28
2107				77,3	5,34	505,31
2108				73,5	4,7	447,29
2109				70,5	5,28	499,26
2110				73,9	5,38	491,30
2111				72,0	4,5	489,31
2112				73,0	5,5	521,29
2113				90,0	4,23	381,29
2114				76,1	5,02	443,30
2115				56,9	4,2	434,32
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2118				70,2	3,56	413,29

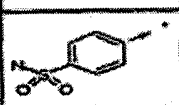
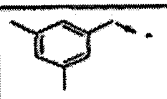
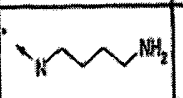
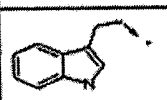
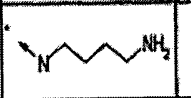
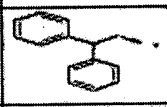
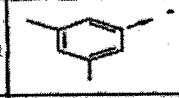
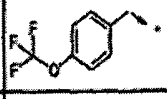
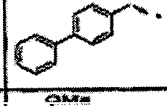
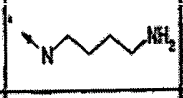
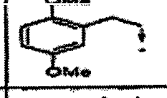
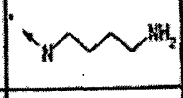
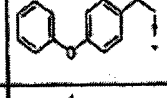
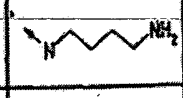
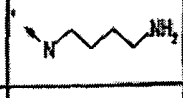
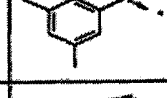
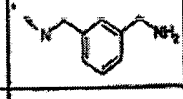
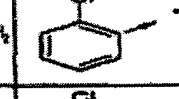
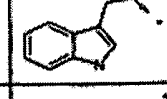
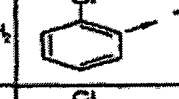
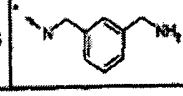
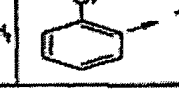
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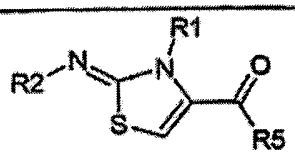
Př.	R5	R2	R1	Čistota(%)	Ret. (min)	[M+H]+
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2120				78,3	4,66	457,33
2121				90,1	3,41	455,33
2122				82,2	4,38	487,36
2123				68,8	2,99	347,34
2124				75,2	4,13	409,33
2126				56,9	4,01	513,30
2126				70,1	3,88	510,29
2127				77,8	4,16	550,29
2128				67,7	3,49	492,28
2129				71	4,27	536,28
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2131				67,7	4,29	566,30
2132				54,5	2,98	426,29

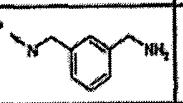
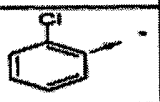
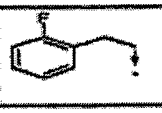
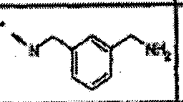
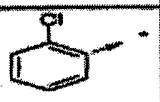
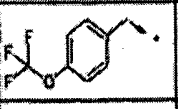
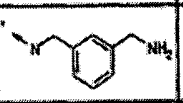
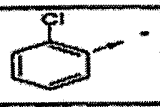
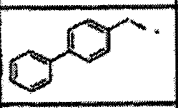
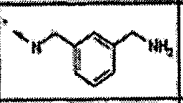
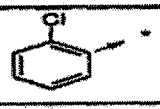
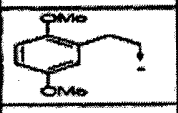
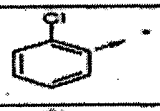
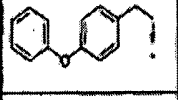
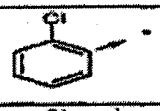
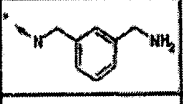
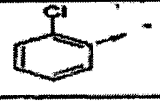
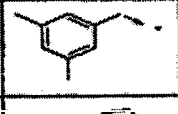
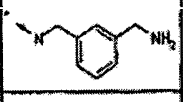
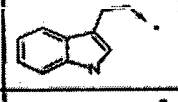
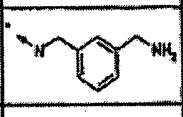
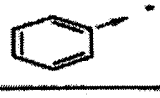
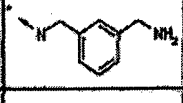
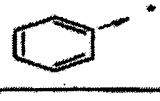
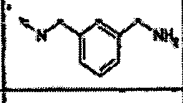
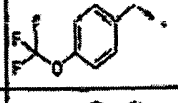
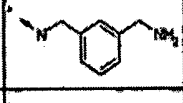
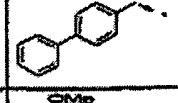
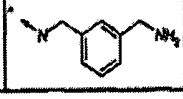
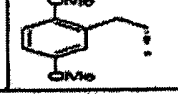
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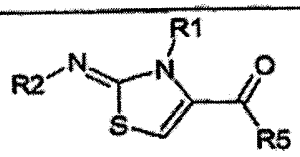
Př.	R6	R2	R1	Čistota(%	Ret. (min)	$[M+H]^+$
2133				70,1	3,85	488,31
2134				57,1	4,5	462,36
2135				83,2	4,61	459,35
2136				91,6	4,72	499,40
2137				80,7	3,94	441,32
2138				73,9	4,99	493,32
2139				77,5	4,95	485,37
2140				77,4	3,79	483,36
2141				66,1	4,62	515,38
2142				70,1	3,49	375,33
2143				74,1	4,46	437,35
2144				93,6	5,14	516,28
2145				90,0	5,27	513,28
2146				81,4	5,58	553,30

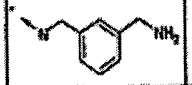
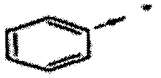
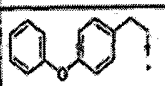
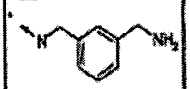
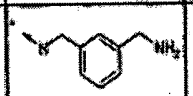
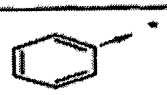
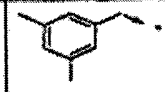
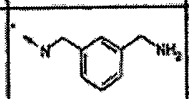
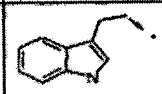
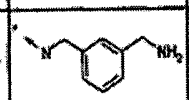
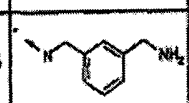
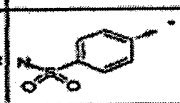
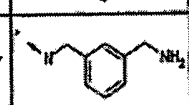
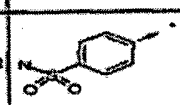
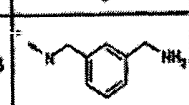
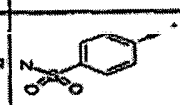
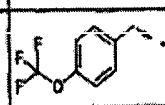
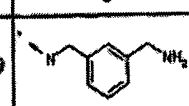
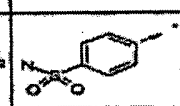
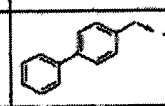
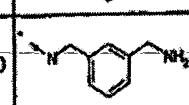
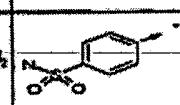
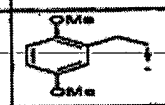
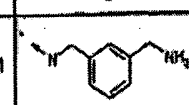
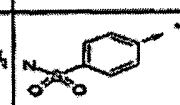
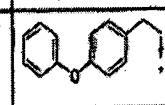
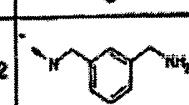
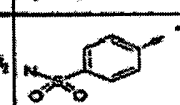
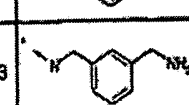
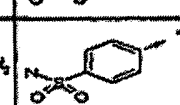
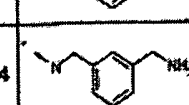
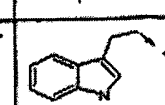
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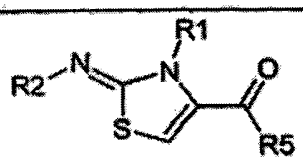
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2147				78,6	5,02	495,27
2148				81,4	5,51	547,21
2149				85,6	5,62	539,29
2150				78,9	4,86	537,28
2151				83,2	5,76	569,28
2152				90,5	4,62	429,28
2153				91,8	5,31	491,31
2154				60,4	4,47	482,33
2155				83,6	4,62	479,31
2156				79,1	4,72	519,34
2157				72,6	3,96	461,31
2158				75,7	5,0	513,27
2159				79,3	4,99	505,34
2160				69,6	3,72	503,34

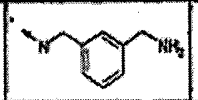
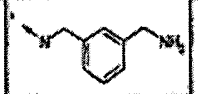
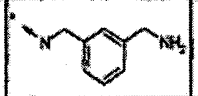
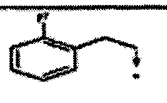
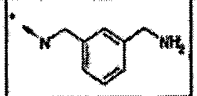
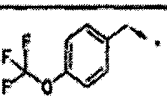
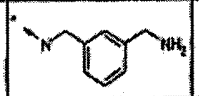
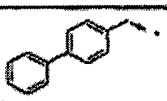
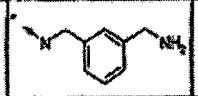
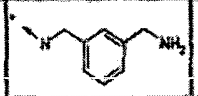
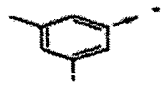
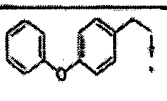
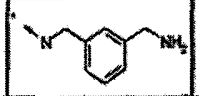
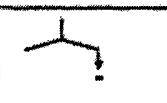
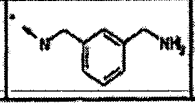
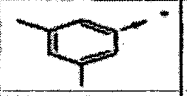
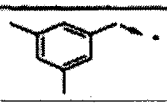
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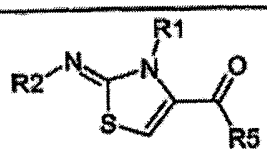
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	$(M+H)^+$
2161				89,6	4,7	535,32
2162				73,5	3,38	395,32
2163				80,1	4,5	457,32
2164				58,8	4,24	561,29
2165				77,9	4,16	558,27
2166				85,5	4,42	598,29
2167				82,8	3,87	540,27
2168				1,54	4,52	592,26
2169				56,0	4,54	584,25
2170				82,5	3,76	582,30
2171				71,8	4,58	614,31
2172				71,9	3,43	474,30
2173				80,9	4,16	536,28
2174				61,9	4,76	510,36

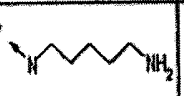
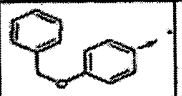
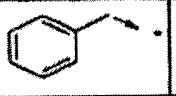
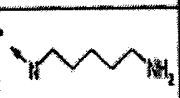
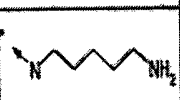
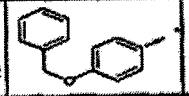
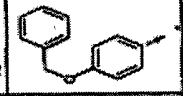
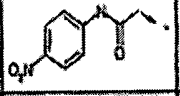
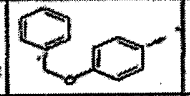
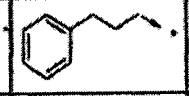
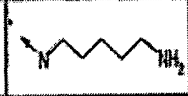
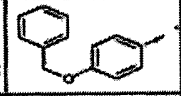
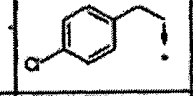
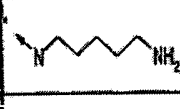
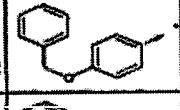
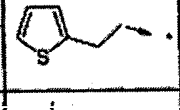
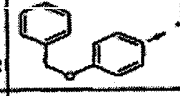
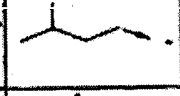
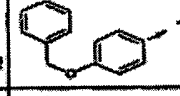
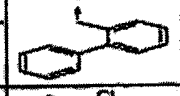
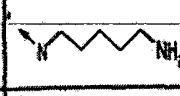
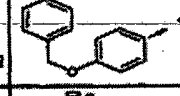
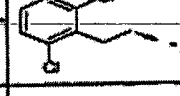
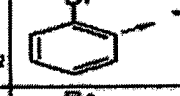
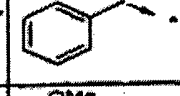
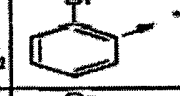
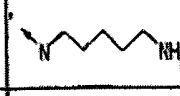
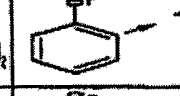
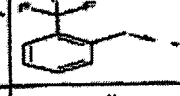
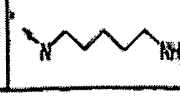
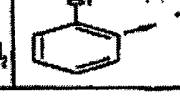
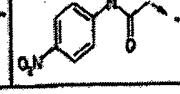
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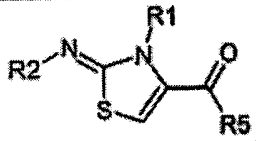
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2175				83,1	4,93	507,35
2176				92,0	4,99	547,36
2177				88,3	4,27	489,35
2178				86,3	5,41	541,29
2179				79,7	5,36	533,36
2180				82,5	4,13	631,35
2181				74,0	4,99	563,34
2182				76	3,89	423,35
2183				79,8	4,89	485,38

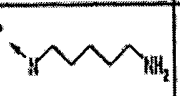
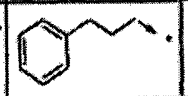
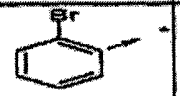
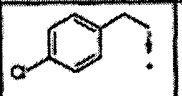
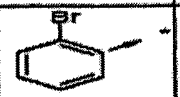
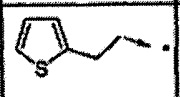
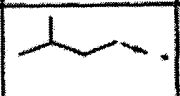
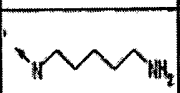
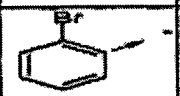
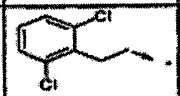
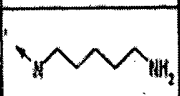
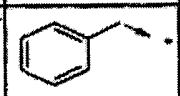
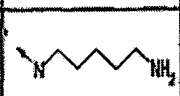
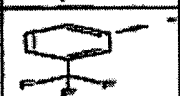
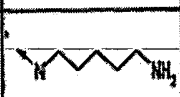
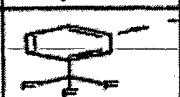
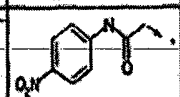
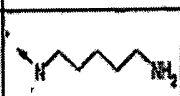
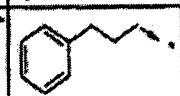
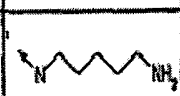
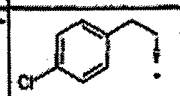
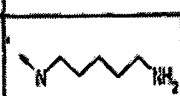
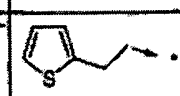
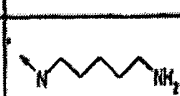
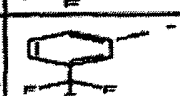
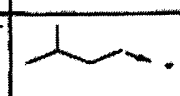
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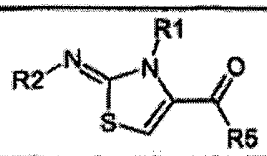
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2184				80,8	4,43	501,32
2185				66,2	4,18	545,31
2186				64,6	5,18	569,27
2187				57,2	4,78	589,30
2188				65,7	4,41	529,36
2189				65,4	4,52	549,28
2190				65,8	4,24	521,29
2191				71,4	4,19	481,37
2192				83,9	4,8	577,32
2193				76,5	4,54	583,24
2194				67,2	4,76	473,22
2195				66,6	4,69	517,20
2196				71	5,2	541,18
2197				69	4,73	561,15

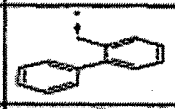
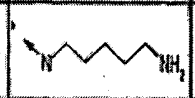
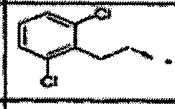
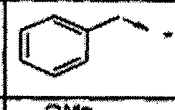
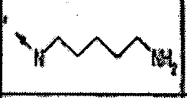
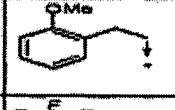
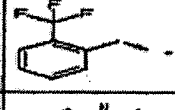
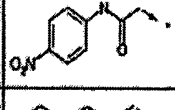
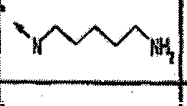
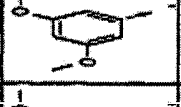
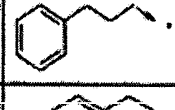
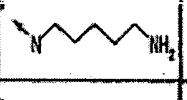
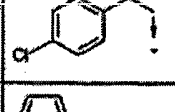
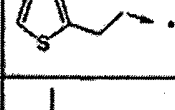
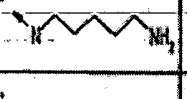
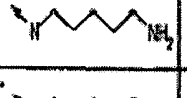
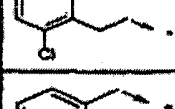
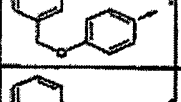
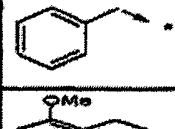
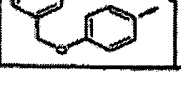
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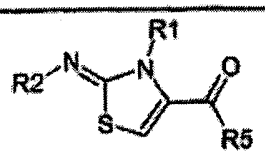
Pr.	R5	R2	R1	Čistota(%)	Ret. (min)	$[M+H]^+$
2198				74,8	5,04	501,24
2199				69,5	5,18	521,16
2200				79,3	4,8	493,16
2201				74,9	4,79	453,24
2202				68,9	5,41	549,20
2203				68	5,2	555,11
2204				66	5,02	463,27
2205				62,2	4,83	507,28
2206				65,2	5,48	531,24
2207				66,3	4,99	551,22
2208				72,9	5,22	491,31
2209				77,2	5,31	511,24
2210				62,8	4,98	483,24
2211				62,4	4,98	443,31

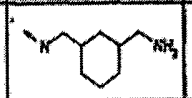
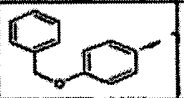
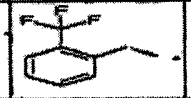
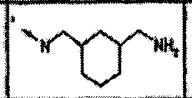
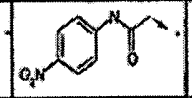
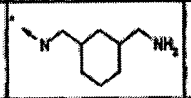
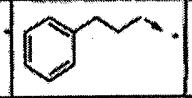
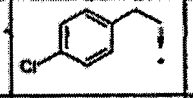
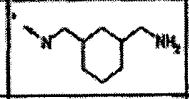
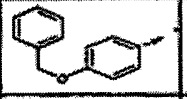
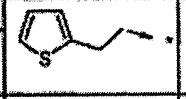
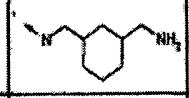
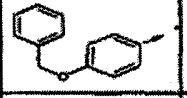
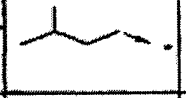
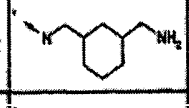
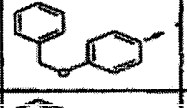
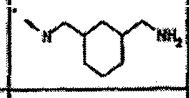
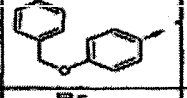
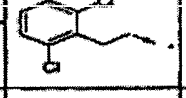
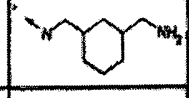
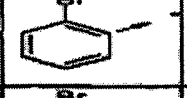
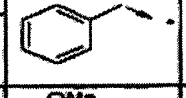
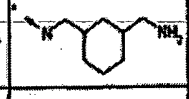
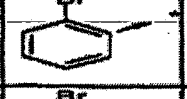
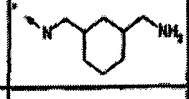
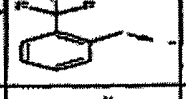
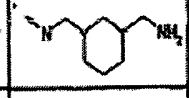
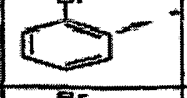
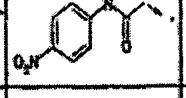
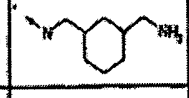
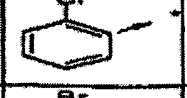
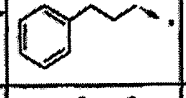
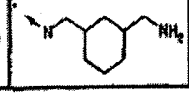
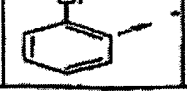
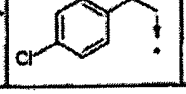
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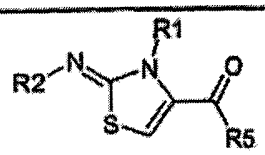
Př.	R5	R2	R1	Čistota(%)	Ret. (min)	[M+H]+
2212				69,6	5,55	539,29
2213				63,5	5,41	545,19
2214				41,2	4,09	455,28
2215				58,5	3,73	499,35
2216				68,8	4,78	523,28
2217				36,2	4,37	543,28
2218				42,9	4,1	483,36
2219				46,1	4,24	503,30
2220				48,4	3,87	475,28
2221				39	3,8	435,34
2222				48,3	4,55	531,30
2223				47	4,33	537,20
2224				57,4	4,64	541,34
2225				69,1	4,34	585,37

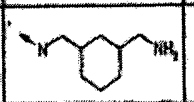
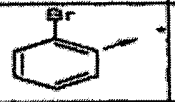
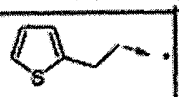
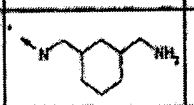
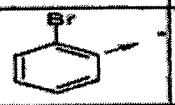
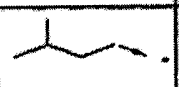
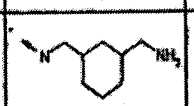
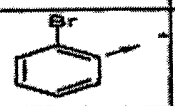
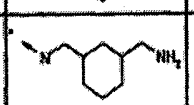
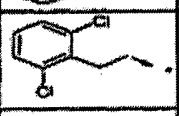
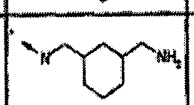
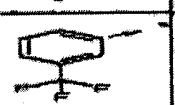
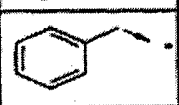
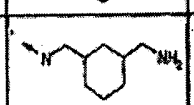
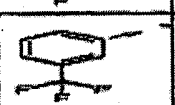
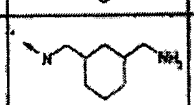
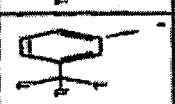
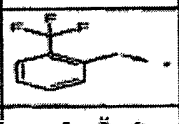
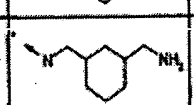
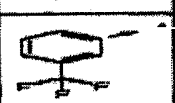
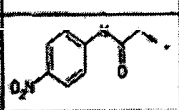
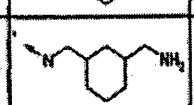
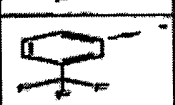
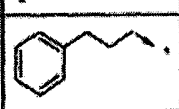
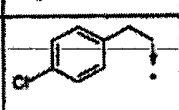
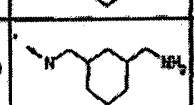
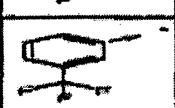
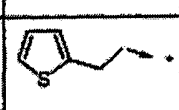
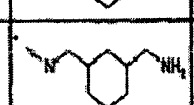
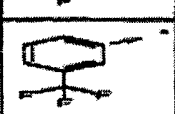
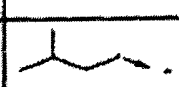
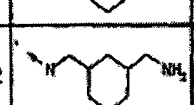
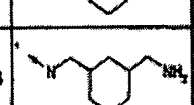
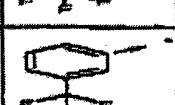
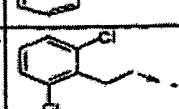
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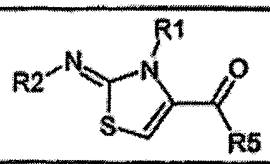
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2226				64,6	5,36	609,35
2227				40,2	4,94	629,34
2228				62,6	4,57	569,3
2229				68	4,72	589,31
2230				61,2	4,44	561,31
2231				61,2	4,37	521,36
2232				80,7	5,02	617,37
2233				74,2	4,77	623,28
2234				68,1	4,99	513,23
2235				66,1	4,98	557,22
2236				68,8	5,38	581,20
2237				69,7	4,9	601,19
2238				67,1	5,27	541,23
2239				72,6	5,45	561,16

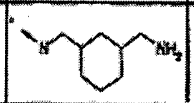
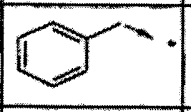
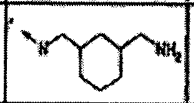
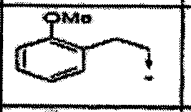
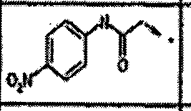
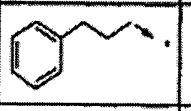
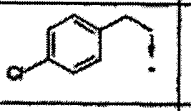
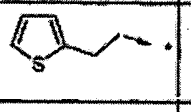
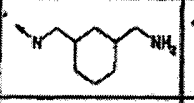
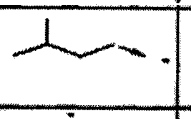
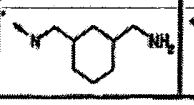
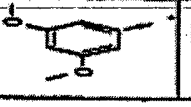
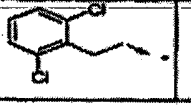
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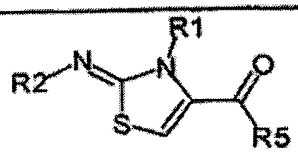
Př.	R5	R2	R1	Čistota(%	Ret.(min)	[M+H]+
2240				75,6	5,09	533,17
2241				74,6	5,08	493,26
2242				74,2	5,6	589,22
2243				70	5,48	595,14
2244				63,2	5,24	503,32
2245				61,1	5,1	647,30
2246				63,3	5,65	571,25
2247				63,7	5,15	591,26
2248				67,2	5,46	531,31
2249				76	5,58	551,24
2250				60,2	5,25	523,26
2251				58,8	5,24	483,3
2252				72,1	5,76	579,31
2253				65,2	5,66	585,20

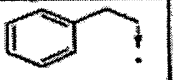
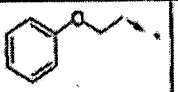
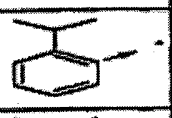
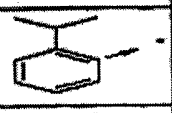
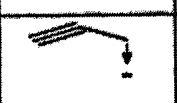
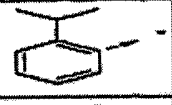
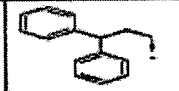
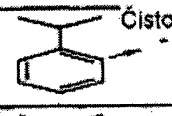
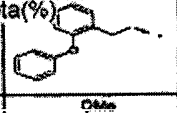
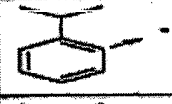
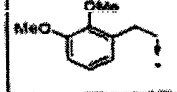
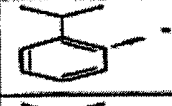
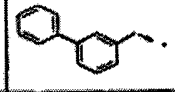
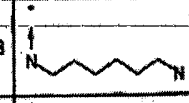
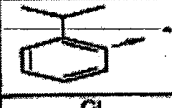
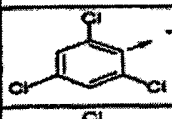
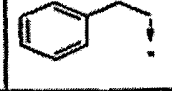
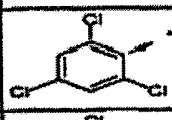
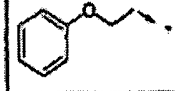
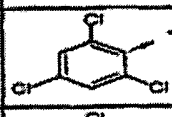
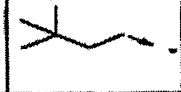
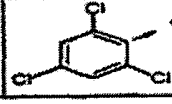
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Př.	R5	R2	R1	Čistota(%	Ret. (min)	$[M+H]^+$
2254				36	4,36	495,33
2255				58,6	3,97	539,36
2256				70	5,0	563,28
2257				50,2	4,55	583,28
2258				43,2	4,34	523,35
2259				52	4,53	543,29
2260				52,1	4,16	515,30
2261				46,2	4,07	475,38
2262				55,2	4,82	571,33
2263				51,5	4,63	577,22

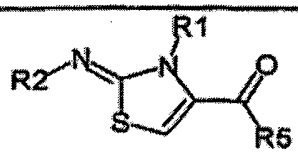
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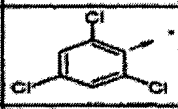
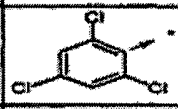
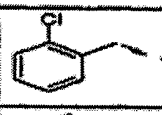
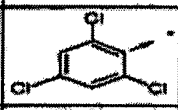
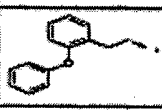
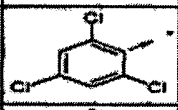
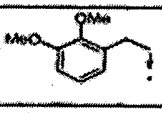
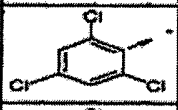
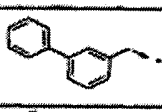
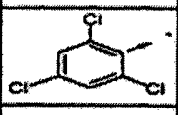
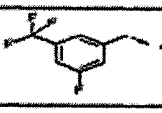
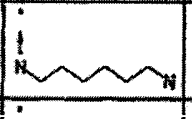
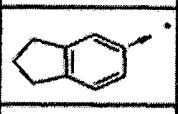
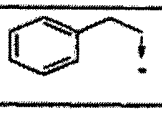
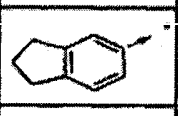
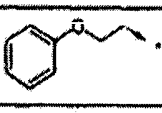
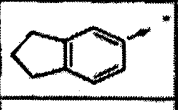
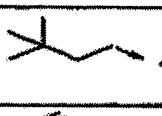
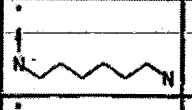
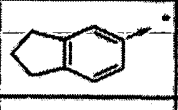
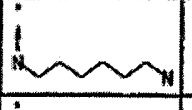
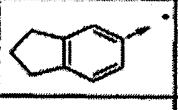
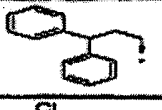
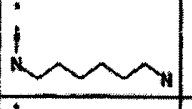
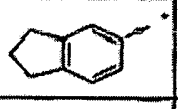
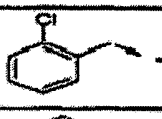
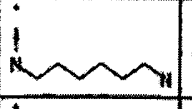
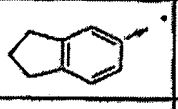
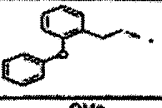
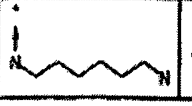
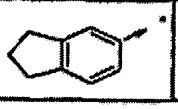
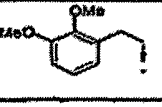


Př.	R5	R2	R1	Pureté (%)	Ret.(min)	$[M+H]^+$
2264				81,1	4,49	465,35
2265				84,1	4,7	481,36
2266				65,7	4,78	445,36
2267				63,0	4,51	399,29
2268				77,8	5,39	555,37
2269				78,5	5,21	485,32
2270				74,0	5,02	557,37
2271				78,1	4,38	525,37
2272				89,2	5,42	527,38
2273				83,0	5,75	537,30
2274				67,8	5,87	525,21
2275				83,2	5,75	541,16
2276				71,9	6,11	505,25
2277				70,5	5,14	459,15

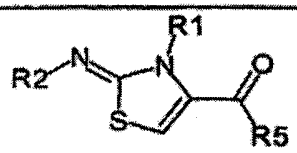
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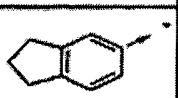
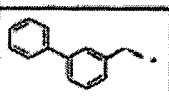
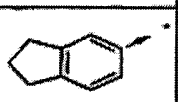
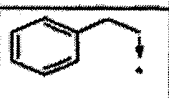
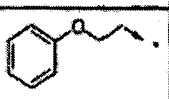
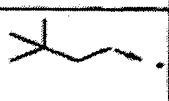
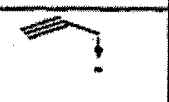
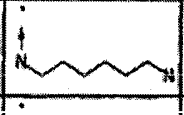
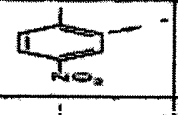
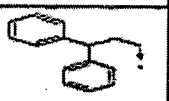
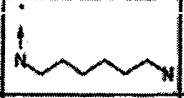
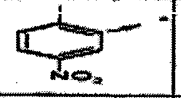
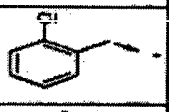
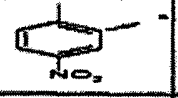
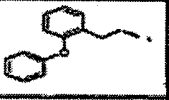
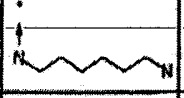
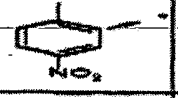
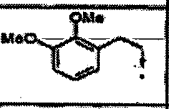
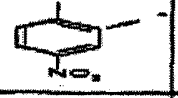
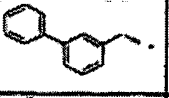
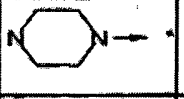
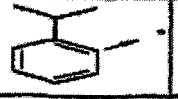
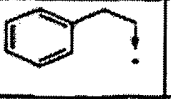
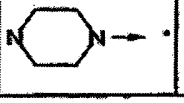
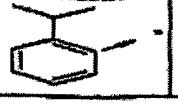
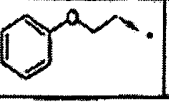
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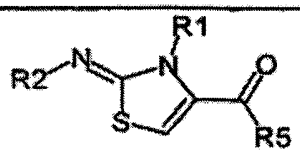


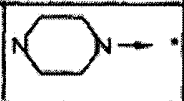
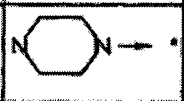
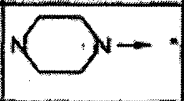
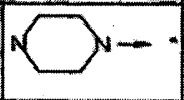
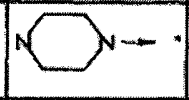
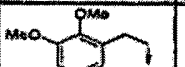
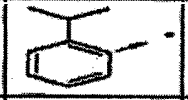
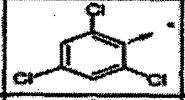
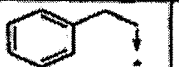
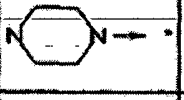
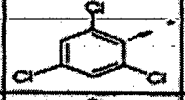
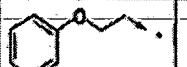
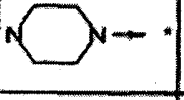
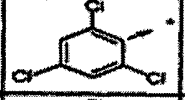
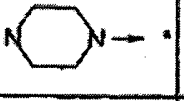
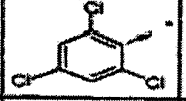
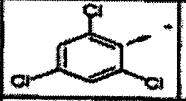
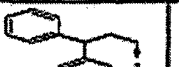
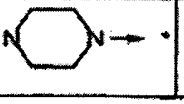
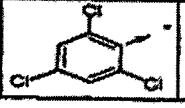
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	$[M+H]^+$
2278				74,6	6,44	615,23
2279				71,5	5,88	545,10
2280				80,2	6,43	617,19
2281				93,4	5,82	585,18
2282				74,9	6,28	587,19
2283				68,3	6,24	597,14
2284				65,8	4,02	463,35
2285				75,8	4,22	479,33
2286				69,0	4,21	443,37
2287				4,2	4,36	397,33
2288				82,7	4,74	553,37
2289				89,8	4,62	483,29
2290				77,2	4,52	555,33
2291				69,3	3,98	523,35

23.01.04

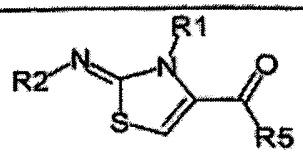


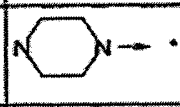
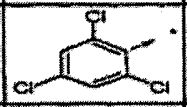
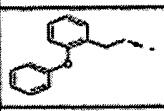
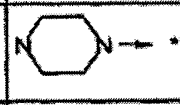
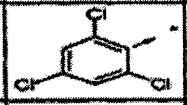
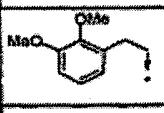
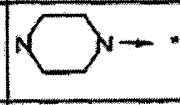
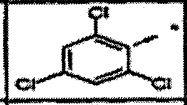
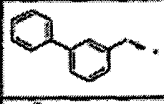
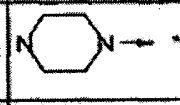
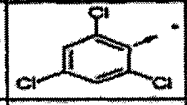
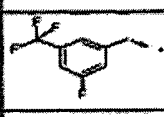
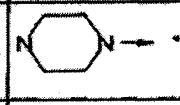
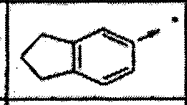
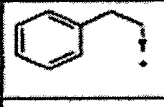
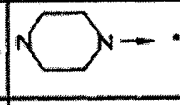
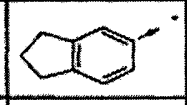
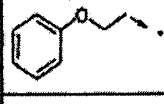
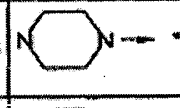
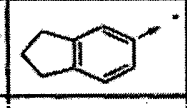
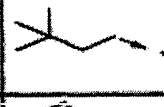
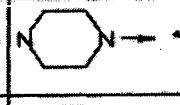
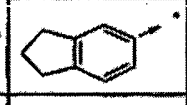
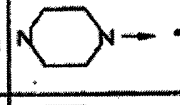
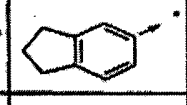
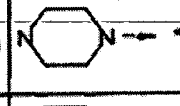
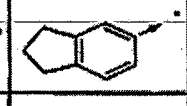
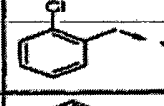
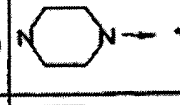
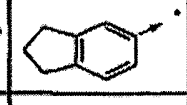
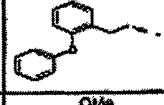
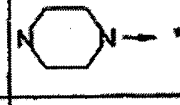
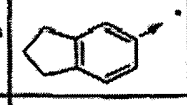
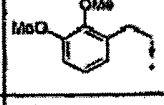
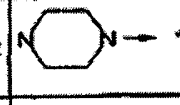
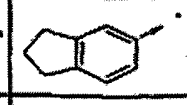
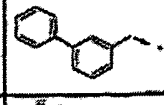
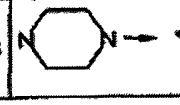
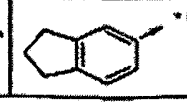
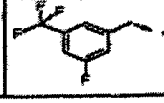
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	$[M+H]^+$
2292				73,3	4,98	525,34
2293				73,1	5,44	535,29
2294				59,4	5,14	482,30
2295				76,0	5,09	498,28
2296				62,3	5,47	462,32
2297				58,6	4,55	416,22
2298				79,5	5,84	572,32
2299				74,9	5,3	502,25
2300				72,7	5,71	574,28
2301				71,1	5,06	542,32
2302				73,0	5,66	544,29
2303				64,6	5,62	554,24
2304				92,2	4,62	435,30
2305				90,1	4,67	451,29



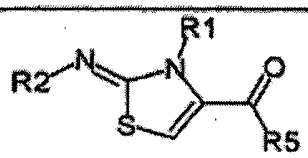
Pf.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2306				84,3	4,76	415,32
2307				43,7	4,34	369,27
2308				83,7	5,44	525,34
2309				80,3	4,96	455,25
2310				83,7	5,26	527,32
2311				82,8	4,64	495,34
2312				94,1	5,44	497,32
2313				90,1	5,55	507,29
2314				64,7	5,62	495,16
2315				50,7	5,54	511,15
2316				78,0	5,8	475,22
2317				20,9	4,86	429,14
2318				79,2	6,27	585,15
2319				46,3	5,58	515,12

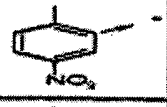
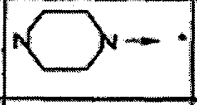
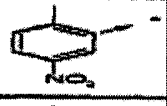
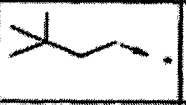
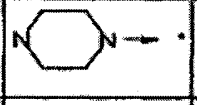
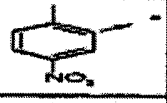
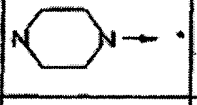
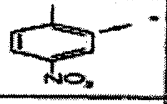
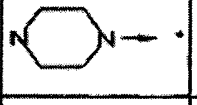
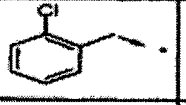
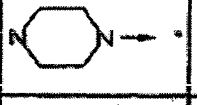
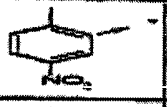
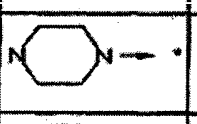
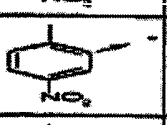
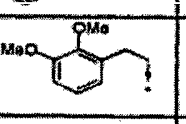
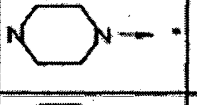
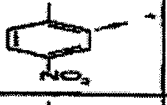
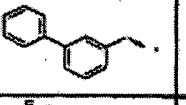
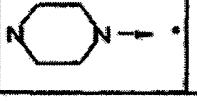
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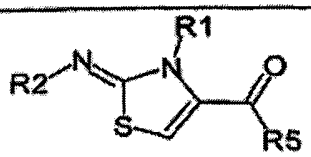
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2320				84,1	6,23	587,20
2321				91,1	5,64	555,18
2322				67,8	6,07	557,22
2323				23,9	5,96	567,17
2324				68,1	4,02	433,40
2325				65,6	4,2	449,38
2326				83,5	4,14	413,39
2327				36,4	3,94	367,35
2328				87,5	4,82	523,39
2329				65,1	4,42	453,33
2330				91,7	4,59	525,37
2331				81,5	4,01	493,40
2332				73,9	4,96	495,39
2333				72,7	5,3	505,33

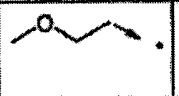
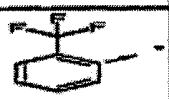
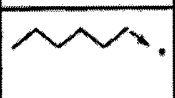
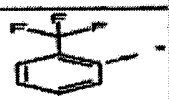
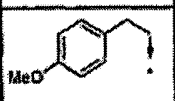
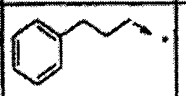
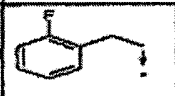
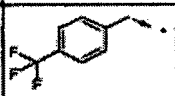
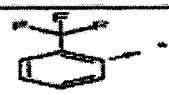
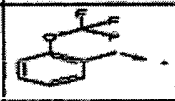
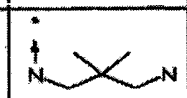
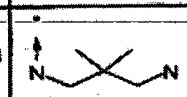
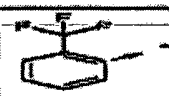
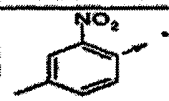
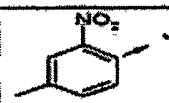
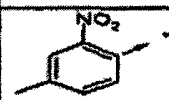
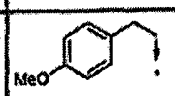
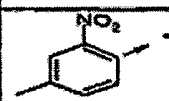
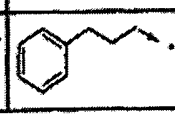
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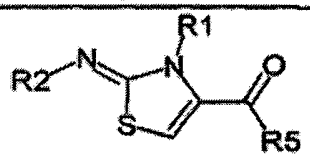
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	$[M+H]^+$
2334				79,9	4,93	452,35
2335				81,8	4,88	468,33
2336				85,9	5,17	432,36
2337				36,2	4,25	386,28
2338				93,3	5,62	542,36
2339				76,5	4,96	472,3
2340				84,9	5,53	544,34
2341				80,6	4,96	512,34
2342				79,6	5,42	514,35
2343				64,9	5,34	524,27

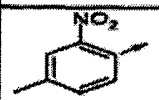
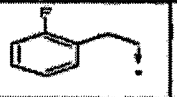
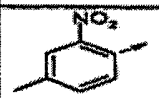
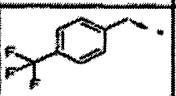
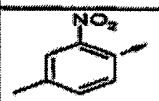
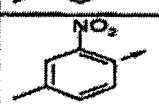
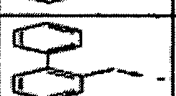
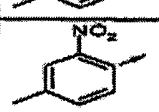
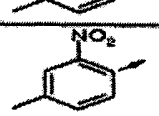
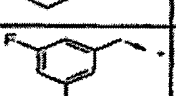
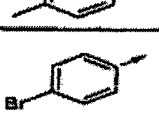
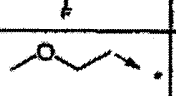
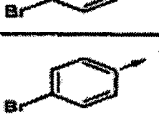
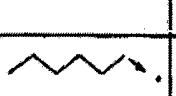
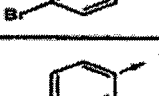
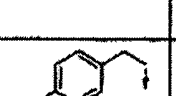
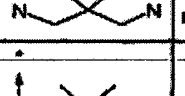
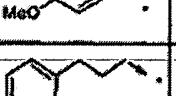
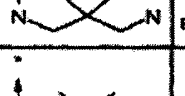
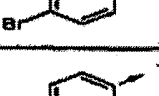
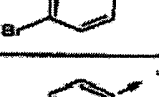
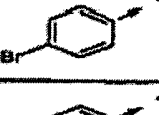
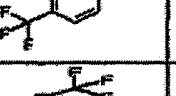
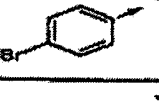
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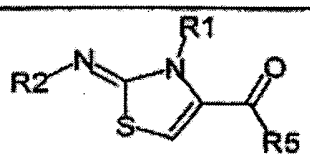
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2344				76,9	4,54	431,32
2345				80,7	5,47	457,38
2346				82,2	5,19	507,34
2347				82,1	5,38	491,35
2348				76,7	5,2	495,30
2349				83,1	5,42	531,30
2350				78,5	5,4	547,27
2351				86,8	5,58	539,33
2352				79,3	5,37	469,36
2353				83,1	5,18	499,31
2354				82,3	4,32	422,33
2355				78,2	5,26	448,39
2356				79,7	4,98	498,37
2357				80,0	5,2	482,38

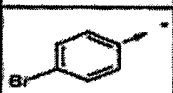
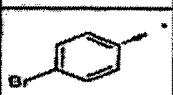
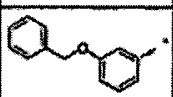
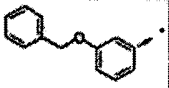
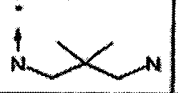
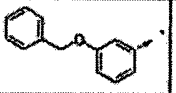
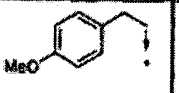
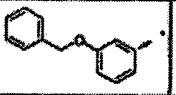
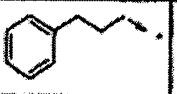
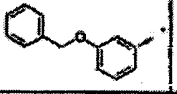
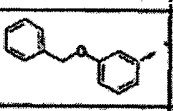
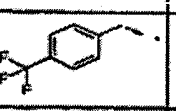
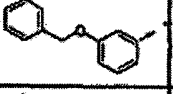
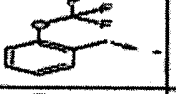
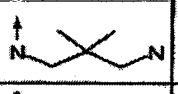
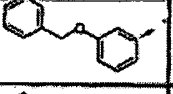
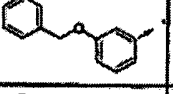
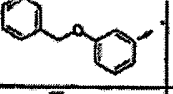
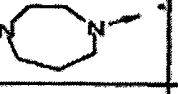
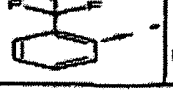
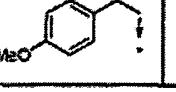
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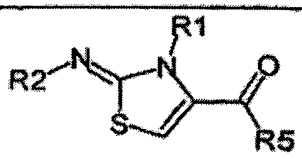
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2358				75,3	5,0	486,34
2359				81,9	5,26	522,30
2360				77,7	5,25	538,29
2361				83,9	5,4	530,35
2362				81,8	5,16	460,38
2363				79,3	5,03	490,31
2364				82,5	4,01	441,22
2365				80,6	4,98	467,28
2366				82,7	4,72	517,25
2367				83,6	5,0	501,26
2368				84,3	4,9	505,23
2369				82,5	5,48	541,19
2370				86,6	5,5	557,19
2371				85,4	5,53	549,24

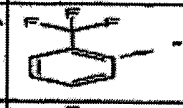
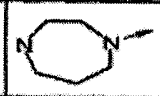
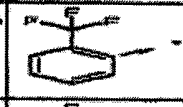
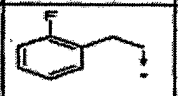
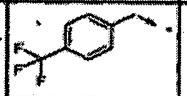
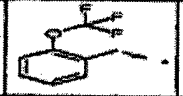
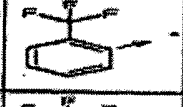
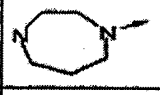
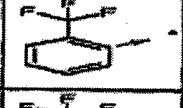
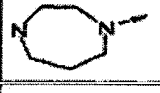
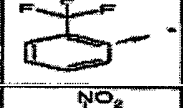
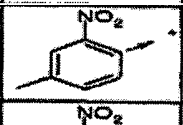
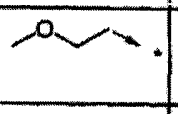
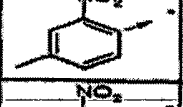
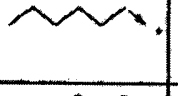
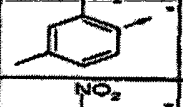
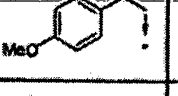
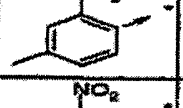
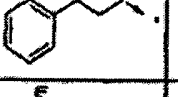
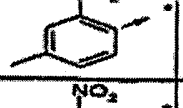
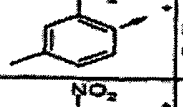
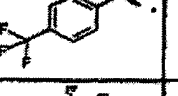
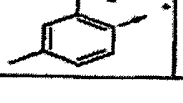
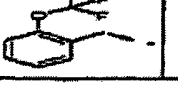
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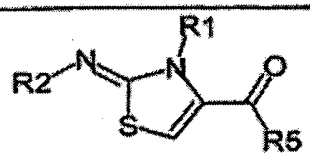
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2372				82,3	4,9	479,30
2373				81,5	5,26	509,21
2374				83,4	4,23	469,37
2375				82,3	4,94	495,40
2376				88,1	4,73	545,36
2377				90,4	4,99	529,39
2378				80,6	4,92	533,35
2379				85,2	5,62	569,33
2380				84,2	5,6	585,33
2381				85,0	5,54	577,38
2382				80,6	4,87	507,41
2383				85,9	5,42	537,34
2384				74,2	5,32	455,34
2385				92,3	5,1	505,32

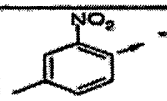
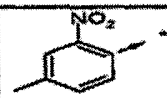
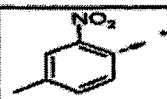
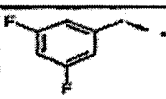
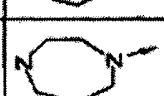
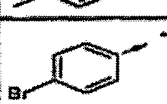
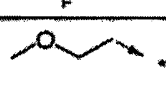
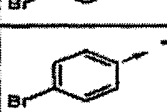
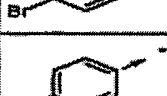
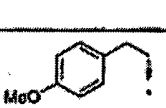
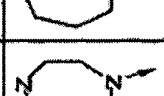
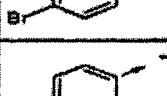
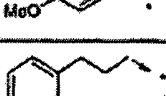
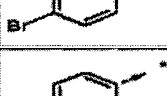
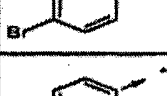
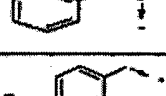
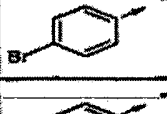
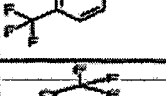
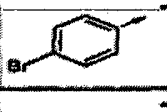
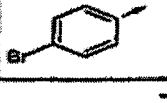
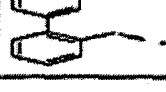
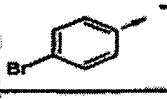
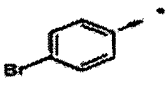
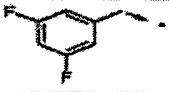
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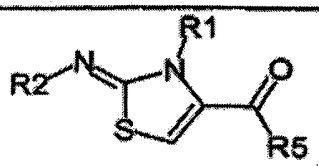
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2386				78,4	5,23	489,33
2387				71,3	5,12	493,32
2388				74,4	5,32	529,27
2389				68,8	5,29	545,25
2390				77,7	5,44	537,33
2391				80,7	5,24	467,36
2392				63,3	5,04	497,30
2393				87,4	4,16	420,33
2394				82,7	5,12	446,38
2395				82,4	4,88	496,35
2396				78,0	5,04	480,37
2397				75,9	4,9	484,33
2398				71,5	5,16	520,29
2399				65,4	5,12	536,30

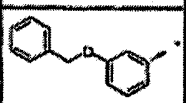
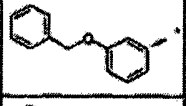
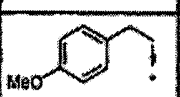
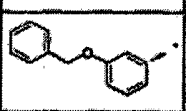
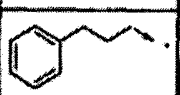
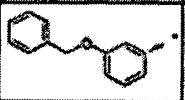
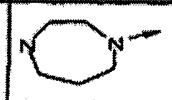
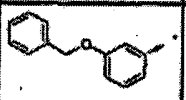
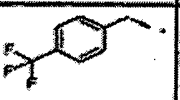
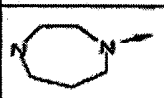
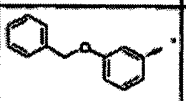
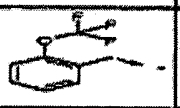
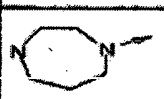
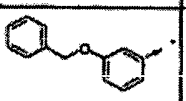
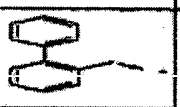
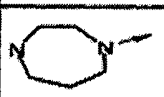
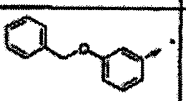
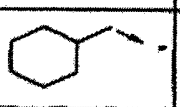
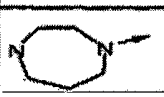
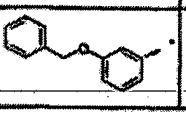
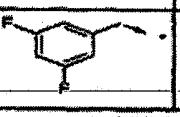
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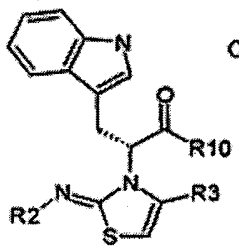
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	[M+H]+
2400				76,0	5,28	528,33
2401				93,8	5,03	458,38
2402				69,2	4,88	488,30
2403				68,3	3,88	439,23
2404				70,8	4,89	465,28
2405				76,2	4,72	515,23
2406				76,5	4,88	499,27
2407				90,1	4,88	503,26
2408				78,8	5,36	539,19
2409				76,1	5,31	555,17
2410				80,5	5,29	547,22
2411				68,2	4,86	477,30
2412				55,7	5,1	507,20
2413				69,2	4,12	467,36

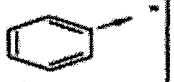
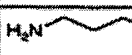
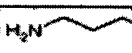
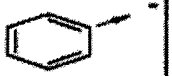
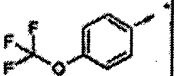
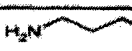
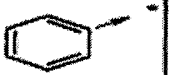
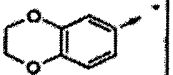
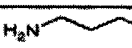
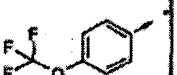
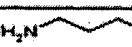
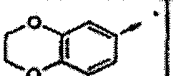
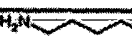
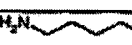
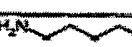
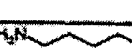
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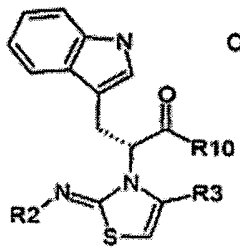
Př.	R5	R2	R1	Čistota(%)	Ret.(min)	$[M+H]^+$
2414				73,6	4,85	493,41
2415				73,9	4,72	543,36
2416				73,4	4,87	527,39
2417				90,6	4,92	531,36
2418				71,6	5,5	567,32
2419				60,5	5,4	583,32
2420				60,8	5,29	575,36
2421				58,8	4,82	505,39
2422				54,7	5,29	535,31

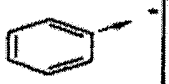
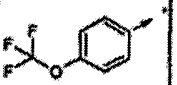
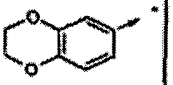
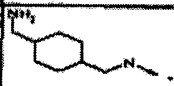
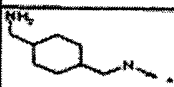
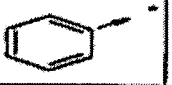
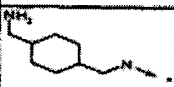
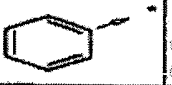
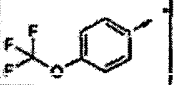
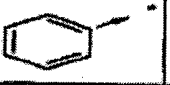
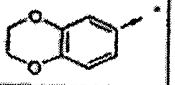
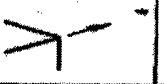
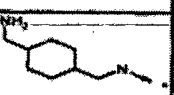
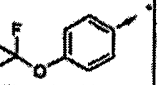
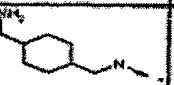
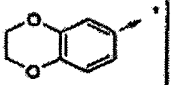
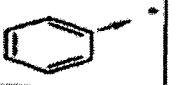
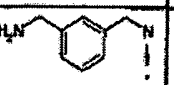
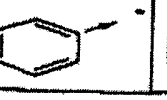
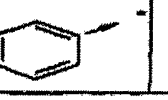
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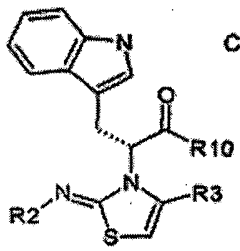
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2423				79,8	3,66	476,30
2424				59,3	3,68	496,26
2425				60,5	4,2	580,22
2426				52,7	3,68	554,24
2427				72,3	3,87	490,30
2428				63,8	3,86	510,26
2429				63,0	4,34	594,23
2430				54,1	3,82	568,25
2431				76,9	3,72	490,30
2432				70,7	3,73	510,26
2433				69,1	4,23	594,24
2434				52,7	3,72	568,24
2435				76,6	3,92	504,32

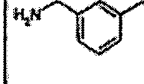
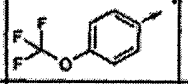
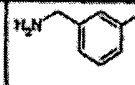
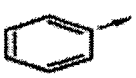
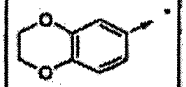
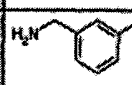
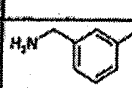
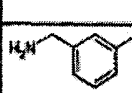
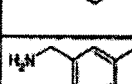
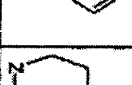
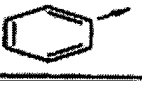
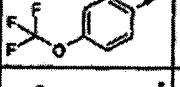
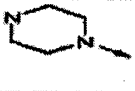
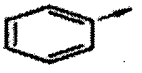
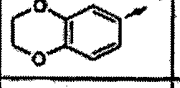
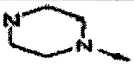
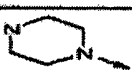
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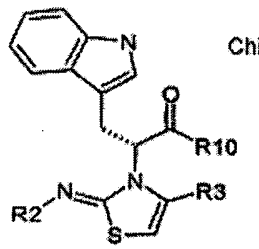


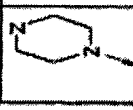
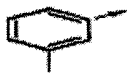
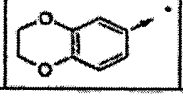
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2436				64,8	3,9	524,28
2437				66,2	4,37	608,24
2438				59,3	3,86	582,27
2439				74,3	3,9	544,32
2440				65,4	3,91	564,29
2441				63,8	4,41	648,30
2442				57,6	3,92	622,31
2443				77,8	4,09	558,34
2444				65,5	4,08	578,30
2445				64,3	4,5	662,31
2446				47,6	4,04	636,36
2447				78,6	3,88	538,28
2448				61,2	3,9	558,24

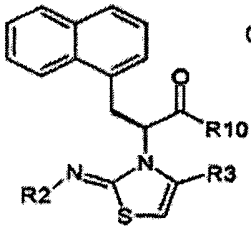
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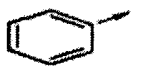
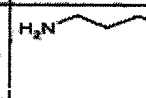
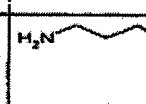
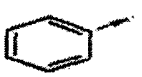
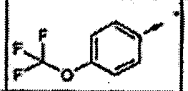
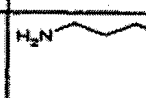
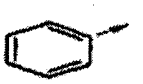
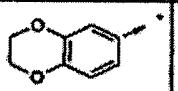
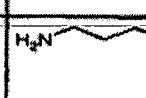
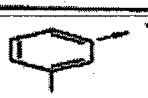
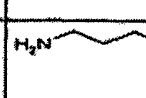
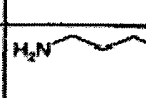
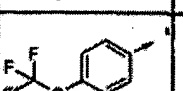
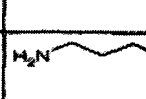
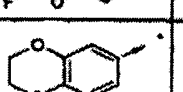
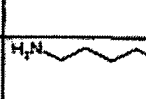


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2449				59,6	4,38	642,27
2450				48,4	3,88	616,30
2451				79,9	4,06	552,28
2452				59,4	4,04	572,25
2453				61,4	4,52	656,29
2454				50,0	4,02	630,31
2455				76,1	3,74	488,29
2456				88,3	3,72	508,25
2457				84,2	4,21	592,22
2458				82,1	3,71	566,24
2459				72,4	3,96	502,32
2460				88,5	3,89	522,27
2461				86,6	4,37	606,26

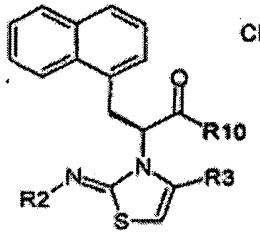


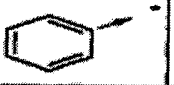
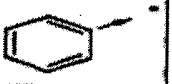
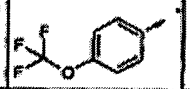
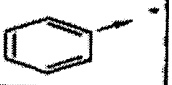
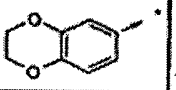
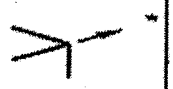
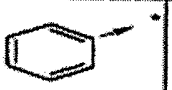
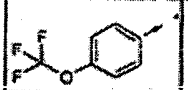
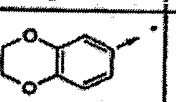
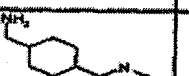
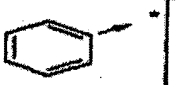
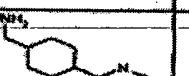
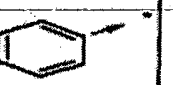
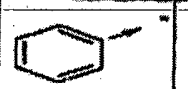
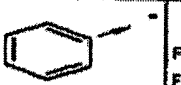
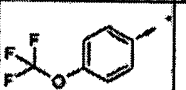
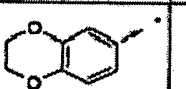
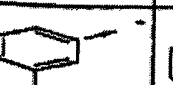
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2462				77,2	3,8	580,26



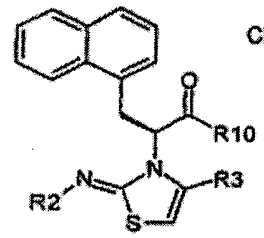
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2463				86,6	3,96	487,31
2464				58,7	4	507,27
2465				64,9	4,48	591,22
2466				40,3	4	565,25
2467				91,3	4,12	501,31
2468				61,2	4,14	521,25
2469				62,4	4,62	605,25
2470				33,1	4,13	579,27
2471				87,3	4,01	501,31

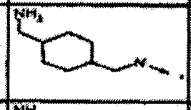
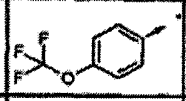
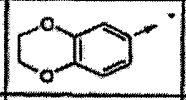
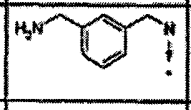
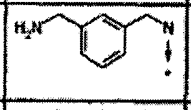
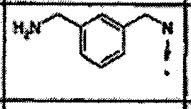
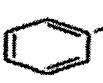
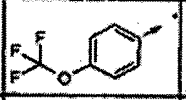
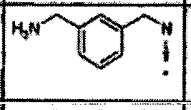
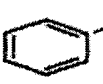
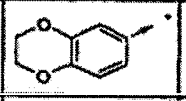
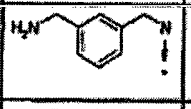
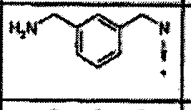
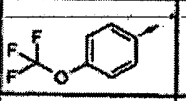
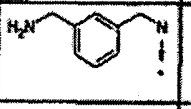
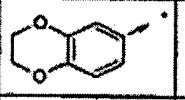
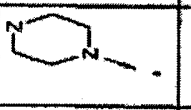
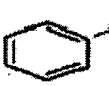
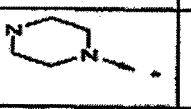
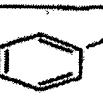
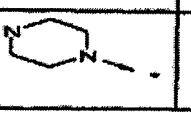
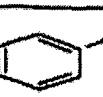
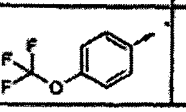
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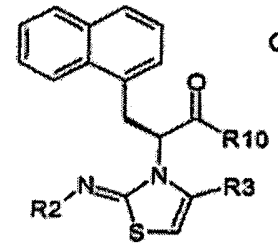
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2472				54,0	4,05	521,25
2473				69,1	4,51	605,26
2474				35,4	4,04	579,27
2475				88,4	4,18	515,31
2476				68,0	4,19	535,28
2477				72,9	4,64	619,25
2478				32,6	4,17	593,28
2479				92,7	4,18	555,33
2480				59,4	4,24	575,29
2481				71,8	4,72	659,33
2482				36,4	4,2	633,44
2483				92,4	4,36	589,34
2484				62,9	4,38	589,32

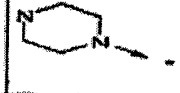
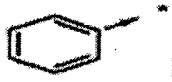
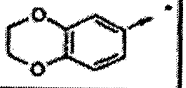
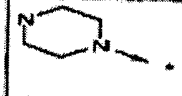
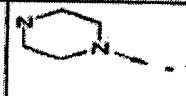
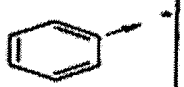
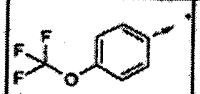
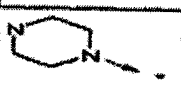
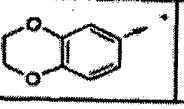
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Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2485				71,9	4,82	673,33
2486				32,2	4,36	647,19
2487				90,2	4,14	549,28
2488				59,7	4,22	569,24
2489				66,6	4,7	653,25
2490				34,5	4,22	627,27
2491				91,3	4,32	563,30
2492				60,8	4,35	583,26
2493				73,3	4,8	667,27
2494				32,9	4,34	641,29
2495				60,4	3,94	499,30
2496				87,0	3,92	519,24
2497				84,4	4,41	603,24

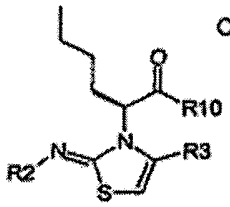
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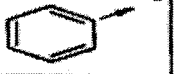
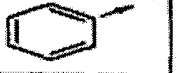
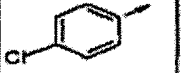
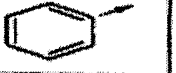
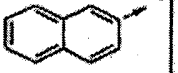
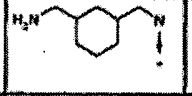
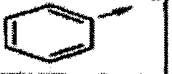
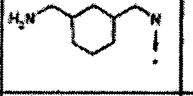
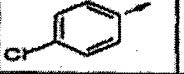
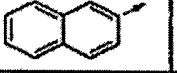
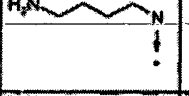
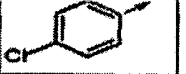
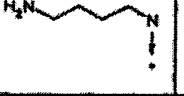
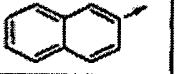
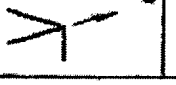


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2498				81,4	3,94	577,26
2499				73,9	4,12	513,31
2500				91,5	4,09	533,26
2501				89,6	4,54	617,26
2502				85,4	4,09	591,27

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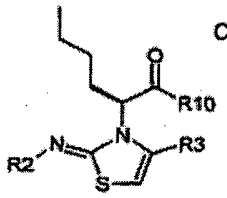
Chirální

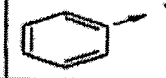
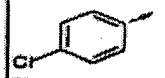
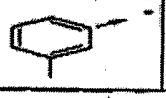
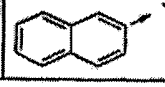


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2503				77,7	3,8	471,39
2504				37,7	3,82	491,34
2505				79,7	4,09	525,28
2506				58,5	4,23	541,33
2507				84,6	4,0	485,38
2508				73,2	4,0	505,34
2509				82,3	4,25	539,29
2510				74,2	4,37	555,34
2511				57,5	3,56	417,32
2512				66,9	3,56	437,27
2513				69,0	3,85	471,26
2514				71,1	4,0	487,33
2515				76,4	3,76	431,34

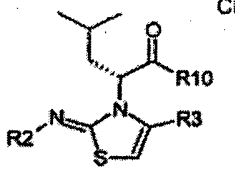
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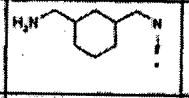
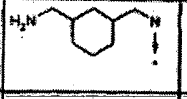
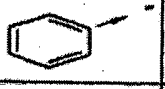
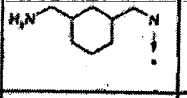
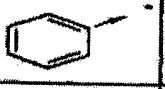
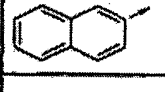
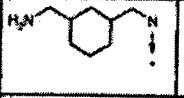
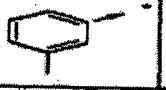
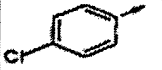
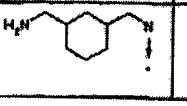
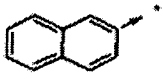
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Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2516				67,8	3,75	461,30
2517				75,2	4,02	485,27
2518				70,4	4,16	501,32

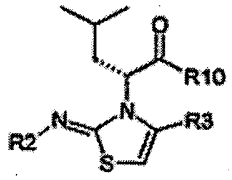
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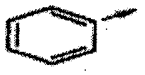
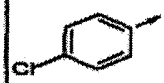
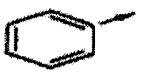
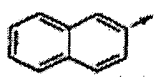
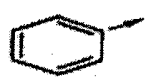
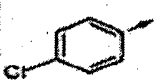
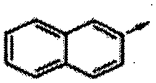


Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2519				76,4	3,73	471,38
2520				67,9	3,76	491,33
2521				75,0	4,04	525,28
2522				71,2	4,17	541,34
2523				87,9	3,94	485,39
2524				72,2	3,94	505,34
2525				82,1	4,2	539,30
2526				80,9	4,33	555,34

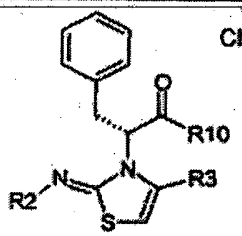
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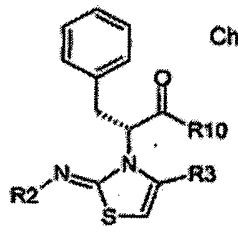
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2527				70,7	3,51	417,32
2528				50,3	3,52	437,28
2529				72,4	3,8	471,26
2530				74,5	3,96	487,32
2531				84,4	3,72	431,32
2532				68	3,71	451,29
2533				89,6	3,98	485,26
2534				77,9	4,12	501,32

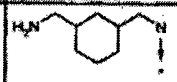
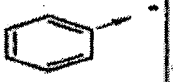
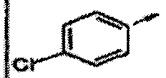
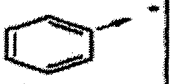
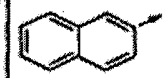
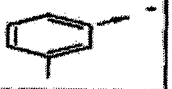
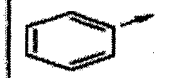
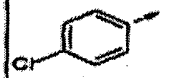
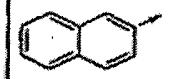
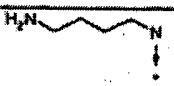
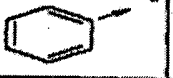
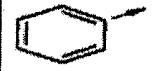
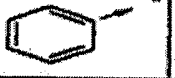
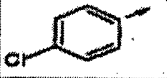
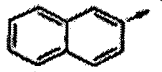
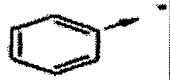
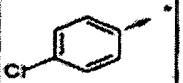
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Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2535				84,7	3,83	505,34
2536				76,2	3,89	525,30

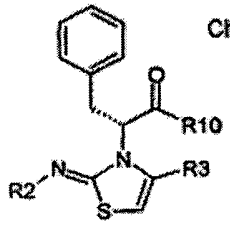
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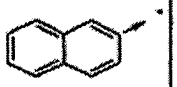


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2537				75,9	4,17	559,25
2538				70,4	4,29	575,30
2539				90,9	4,03	519,35
2540				71,5	4,04	539,31
2541				79,2	4,31	573,25
2542				80,6	4,43	589,33
2543				77,2	3,62	451,30
2544				69,9	3,65	471,27
2545				74,8	3,92	505,22
2546				66,7	4,06	521,26
2547				83,5	3,82	465,31
2548				72,9	3,82	485,28
2549				33,1	4,1	519,23

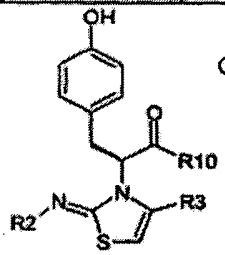
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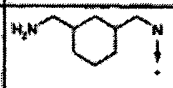
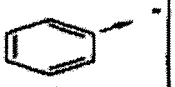
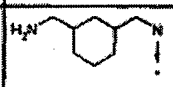
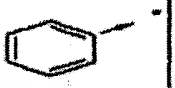
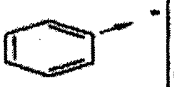
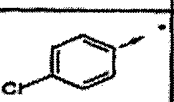
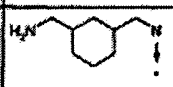
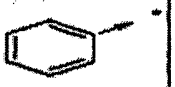
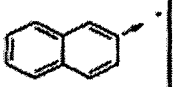
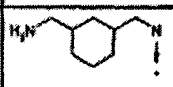
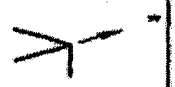
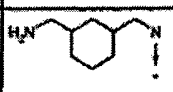
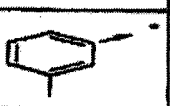
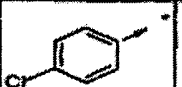
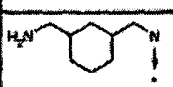
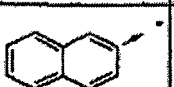
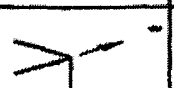
Chirální



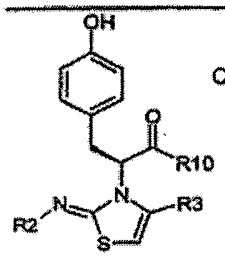
Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2550				51,2	4,22	535,28

Chirální

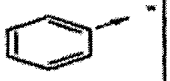
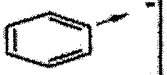
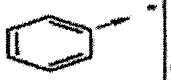
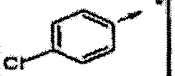
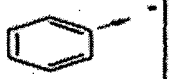
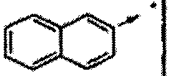
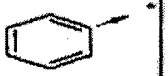
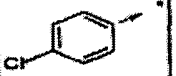
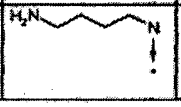
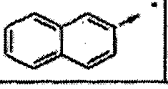


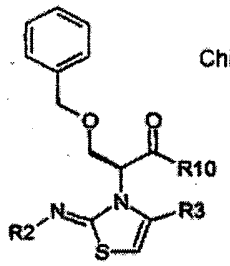
Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2551				79,8	3,45	521,33
2552				72,6	4,14	541,29
2553				63,7	3,79	575,24
2554				73,8	3,93	591,31
2555				91,2	3,65	535,35
2556				75,6	3,66	555,29
2557				78,3	3,94	589,26
2558				69,7	4,06	605,35
2559				69,1	3,22	467,29

23.01.04

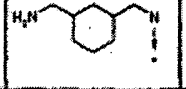
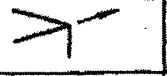
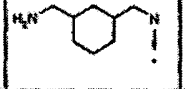
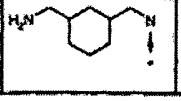
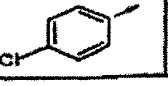


Chirální

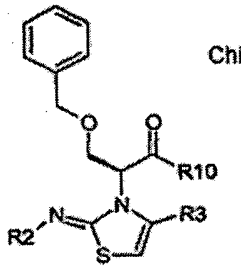
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2560				73,7	3,26	487,27
2561				79,6	3,56	521,20
2562				73,5	3,72	537,27
2563				86,1	3,42	481,31
2564				77,1	3,43	501,29
2565				83,0	3,73	535,22
2566				71,9	3,86	551,28

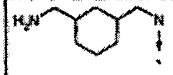
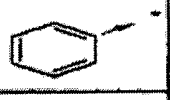
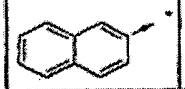
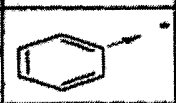
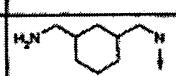
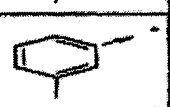
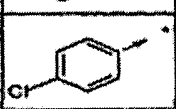
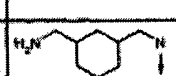
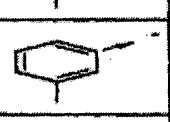
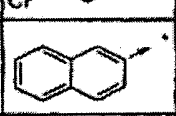
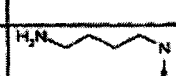
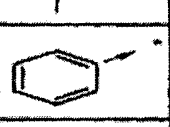
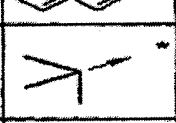
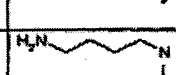
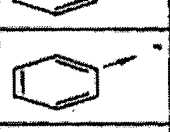
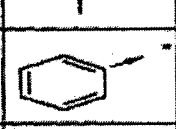
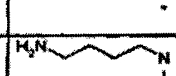
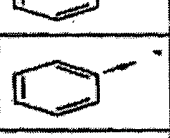
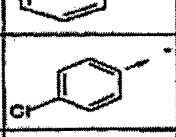
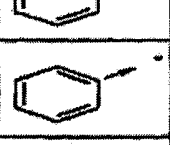
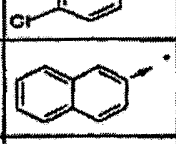
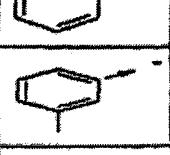
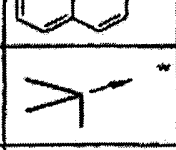
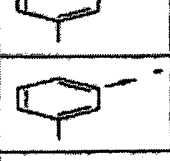
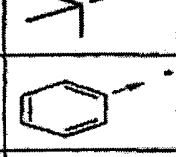
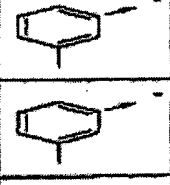
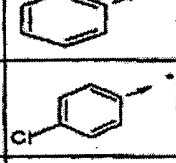
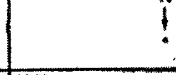
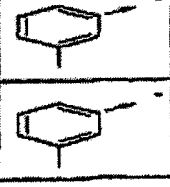
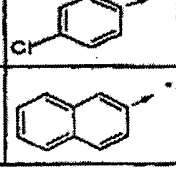


Chirální

Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2567				82,0	3,99	535,3
2568				40,6	4,04	555,31
2569				47,5	4,31	589,26

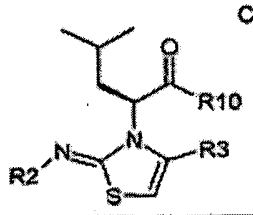
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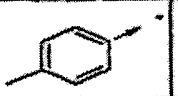
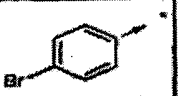
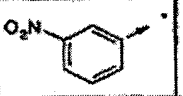
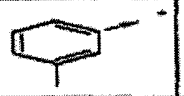
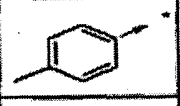
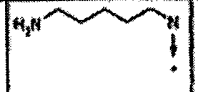
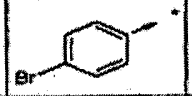
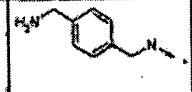
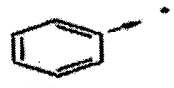
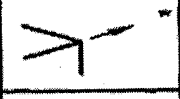
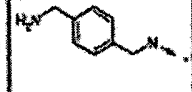
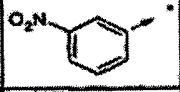
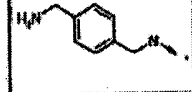
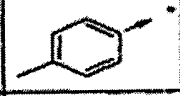
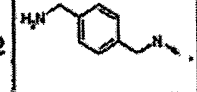
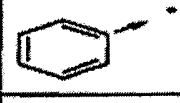
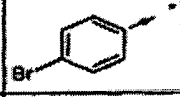
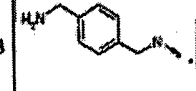
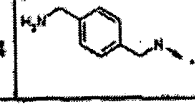
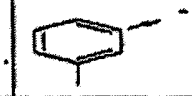
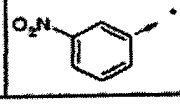


Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2570				37,4	4,43	605,33
2571				79,3	4,18	549,35
2572				38,8	4,19	569,30
2573				51,6	4,46	603,28
2574				36	4,55	619,35
2575				61,4	3,77	481,30
2576				37,9	3,81	501,28
2577				45,6	4,06	535,21
2578				34,9	4,2	551,27
2579				66,2	3,95	495,31
2580				44,8	3,96	515,25
2581				54,4	4,23	549,24
2582				36,5	4,34	565,28

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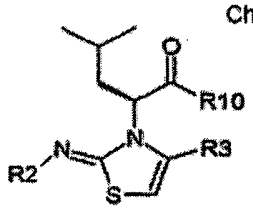
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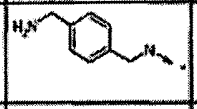
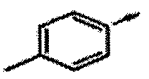
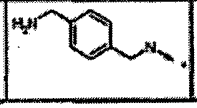
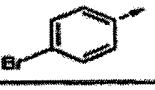


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2583				52,2	3,91	465,24
2584				55,9	4	529,14
2585				51,3	3,9	445,29
2586				57,4	3,9	510,24
2587				54,3	4,04	479,26
2588				61,7	4,12	543,15
2589				80,0	3,82	465,25
2590				61,6	3,85	530,20
2591				61,1	3,97	499,25
2592				61,3	4,06	563,1
2593				84,2	3,96	479,29
2594				58,8	3,98	544,20

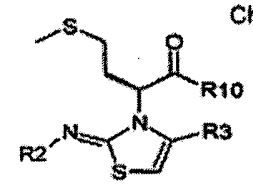
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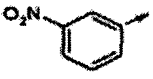
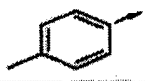
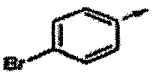
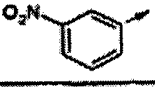
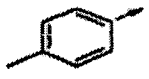
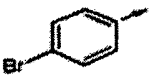
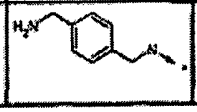
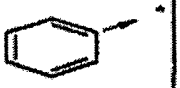
Chirální



Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
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2596				65,5	4,19	577,1

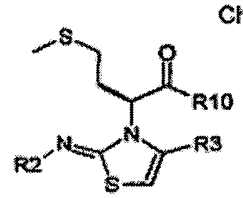
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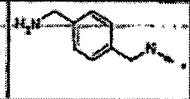
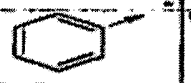
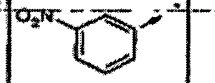
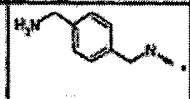
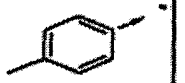
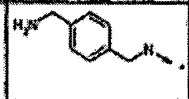
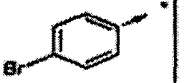
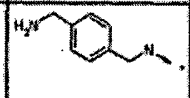
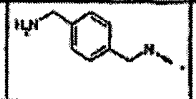
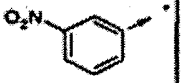
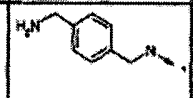
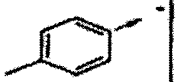
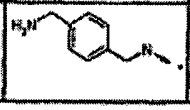
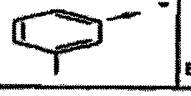
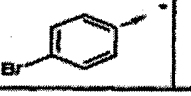


Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2597				28,6	3,7	514,16
2598				39,0	3,83	483,24
2599				39,9	3,92	547,1
2600				53,5	3,8	463,26
2601				28,8	3,83	528,19
2602				31,0	3,96	497,24
2603				34,0	4,05	561,1
2604				64,5	3,72	483,24

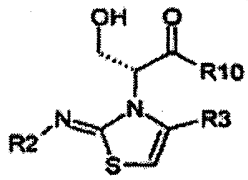
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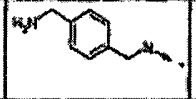
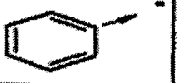
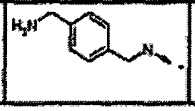
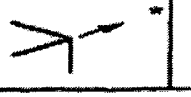
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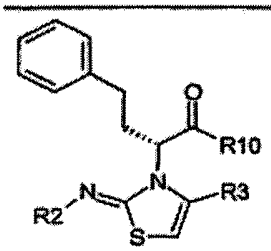
Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2605				25,4	3,78	548,12
2606				36,8	3,9	517,20
2607				31,2	4	581,1
2608				72,8	3,86	497,24
2609				31,7	3,9	562,17
2610				40,1	4,02	531,21
2611				38,2	4,12	595,1

Chirální

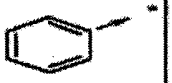
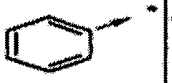
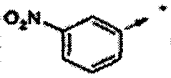
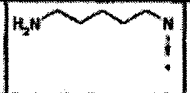
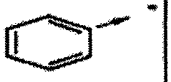
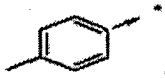
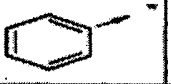
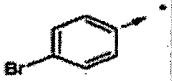
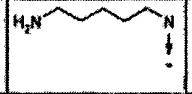
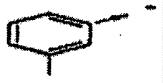
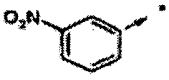
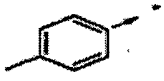
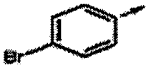
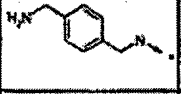
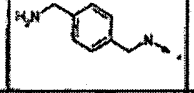
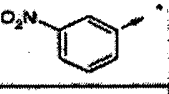
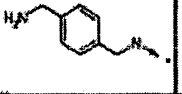
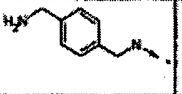
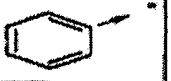
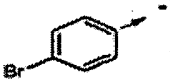
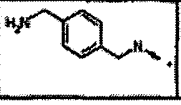


Ex.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
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2613				56,6	3,39	439,21
2614				58,6	3,56	453,23

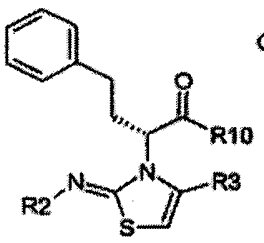
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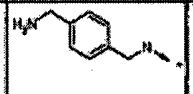
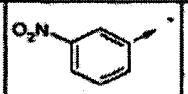
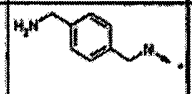
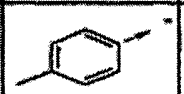
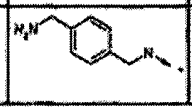
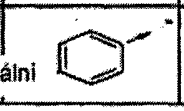


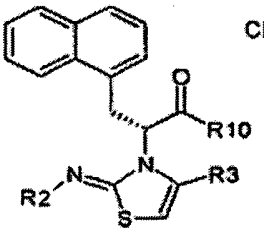
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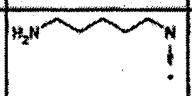
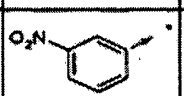
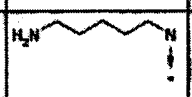
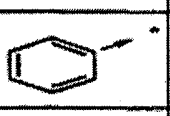
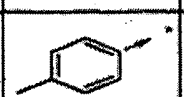
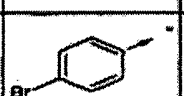
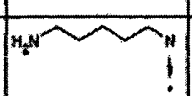
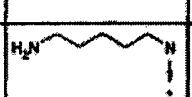
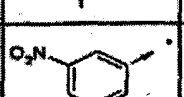
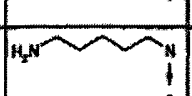
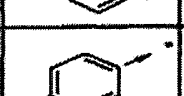
Př.	R10	R2	R3	Čistota(%	Ret.(min)	[M+H]+
2615				65,5	3,96	479,28
2616				50,5	4	544,19
2617				55,7	4,11	513,26
2618				55,6	4,2	577,13
2619				67,1	4,09	493,30
2620				53,7	4,11	558,20
2621				55,5	4,22	527,27
2622				72,1	4,3	591,13
2623				81,1	4,02	513,26
2624				51,0	4,08	578,18
2625				54,1	4,17	547,21
2626				65,2	4,26	611,11
2627				83,9	4,16	527,27

23.01.04

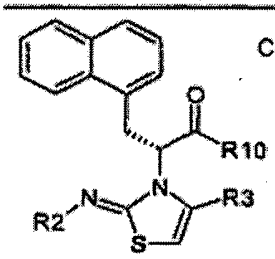


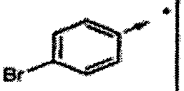
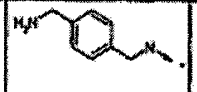
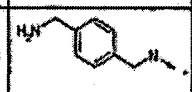
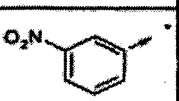
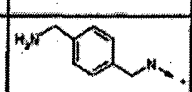
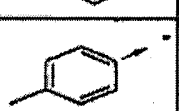
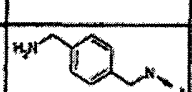
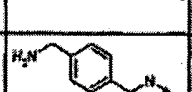
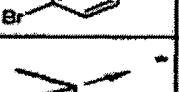
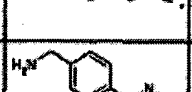
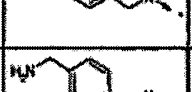
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2628				60,2	4,18	592,21
2629				63	4,3	561,21
2630		 Chirální		74,0	4,36	625,11



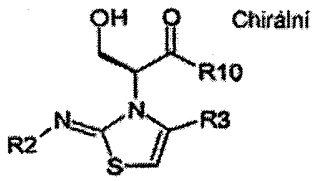
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2631				83,1	4,06	515,26
2632				57,8	4,13	580,20
2633				37,4	4,22	549,23
2634				43,3	4,31	613,12
2635				86,7	4,18	529,27
2636				64,3	4,22	594,19
2637				37,0	4,32	563,25

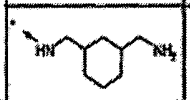
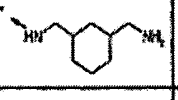
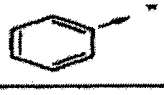
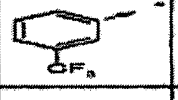
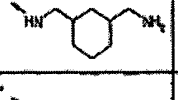
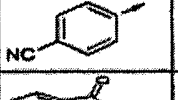
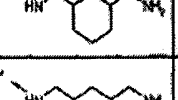
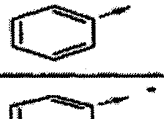
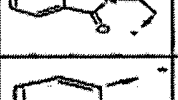
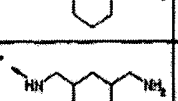
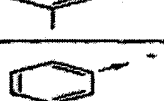
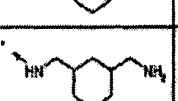
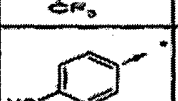
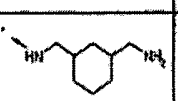
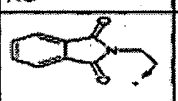
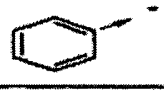
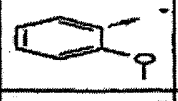
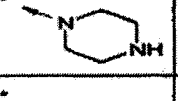
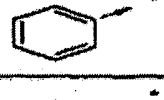
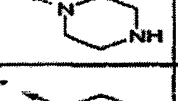
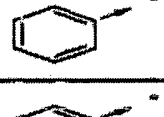
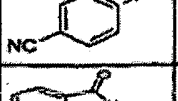
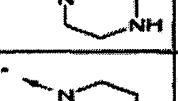
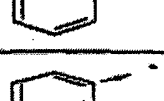
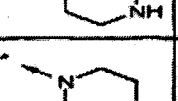
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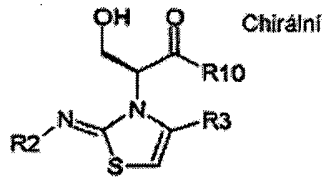
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2638				44,3	4,4	627,15
2639				86,9	4,14	549,23
2640				53,4	4,23	614,17
2641				37	4,3	583,21
2642				45,7	4,4	647,11
2643				88,9	4,24	563,25
2644				57,3	4,3	628,19
2645				39,4	4,39	597,22
2646				44,1	4,48	661,15

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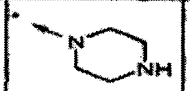
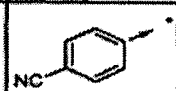
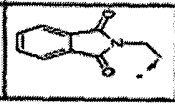


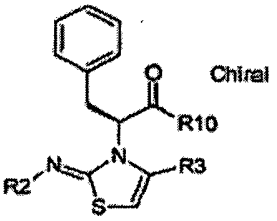
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2647				26,6	3,18	495,23
2648				33,1	3,59	533,15
2649				27,0	3	490,2
2650				33,6	3,14	562,16
2651				27,2	3,36	509,21
2652				32,5	3,76	547,16
2653				29,7	3,2	504,2
2654				34,8	3,32	576,21
2655				73,7	2,93	439,15
2656				60,6	3,37	477,14
2657				65,1	2,7	434,1
2658				69,3	2,92	506,14
2659				72,5	3,14	453,17
2660				77,2	3,55	491,14

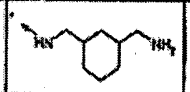
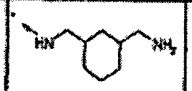
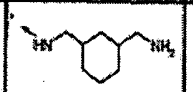
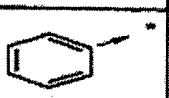
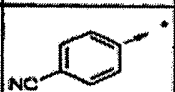
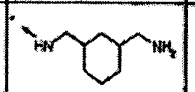
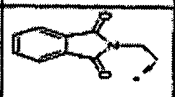
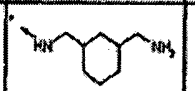
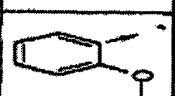
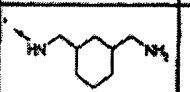
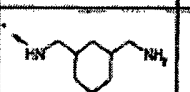
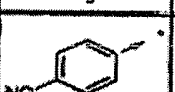
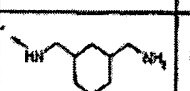
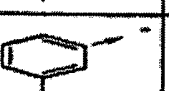
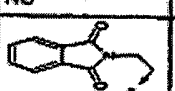
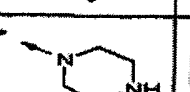
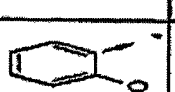
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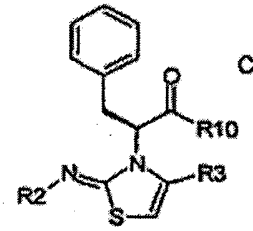
Chirální

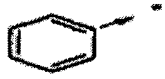
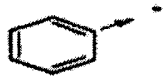
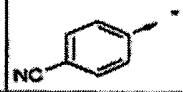
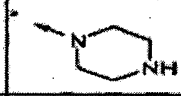
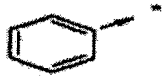
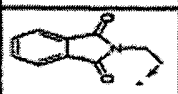
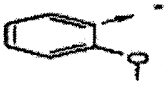
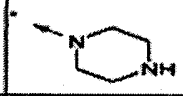
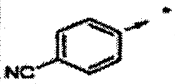
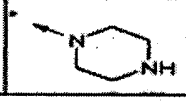
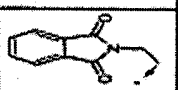
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
2661				66,4	2,9	448,1
2662				65,9	3,14	520,15

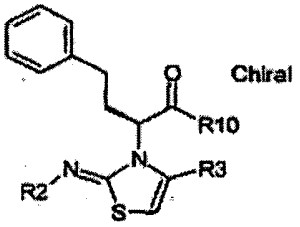


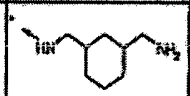
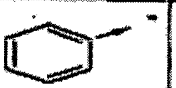
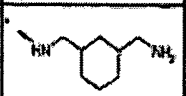
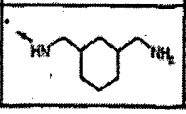
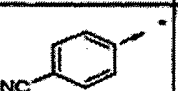
Př.	R10	R2	R3	Čistota(%)	tr (min)	$[M+H]^+$
2663				63,3	3,82	555,21
2664				85,8	4,24	593,19
2665				87,5	3,8	550,2
2666				75,1	3,78	622,22
2667				66,1	3,98	569,21
2668				87,2	4,35	607,21
2669				82,9	3,9	564,2
2670				79,1	3,94	636,25
2671				82,0	3,55	499,18

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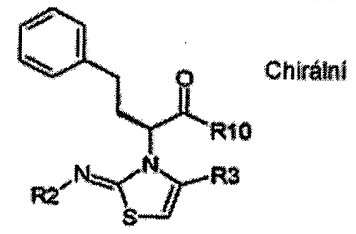


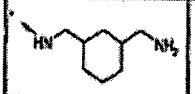
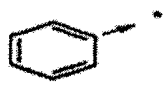
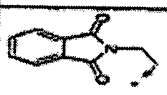
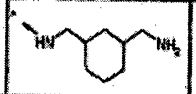
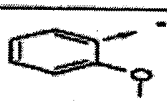
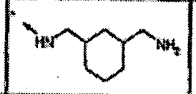
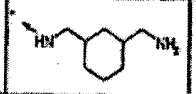
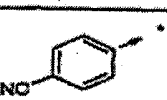
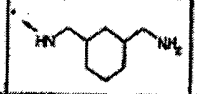
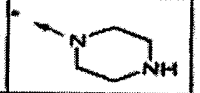
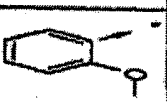
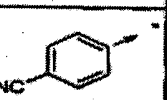
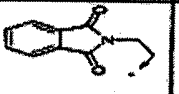
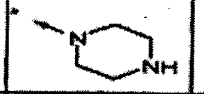
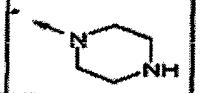
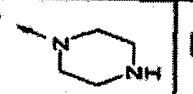
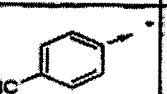
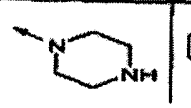
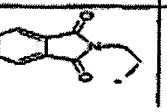
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
2672				82,2	3,93	537,14
2673				86,4	3,4	494,2
2674				90,4	3,52	566,15
2675				88,0	3,72	513,19
2676				88,8	4,08	551,15
2677				88,9	3,6	508,2
2678				93,6	3,7	580,17

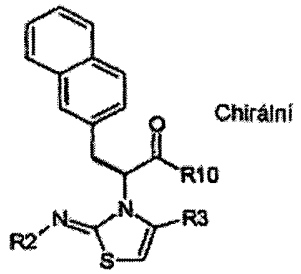


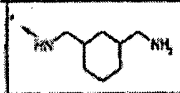
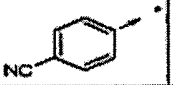
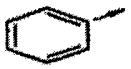
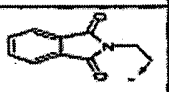
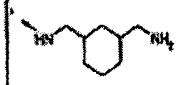
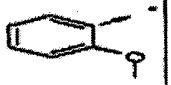
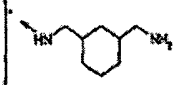
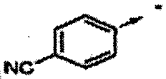
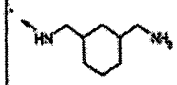
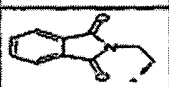
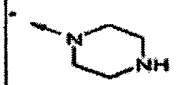
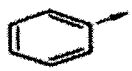
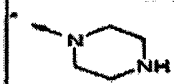
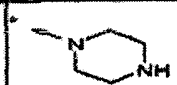
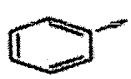
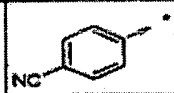
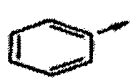
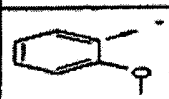
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
2679				59,5	4	569,20
2680				82,6	4,37	607,21
2681				74,9	3,9	564,2

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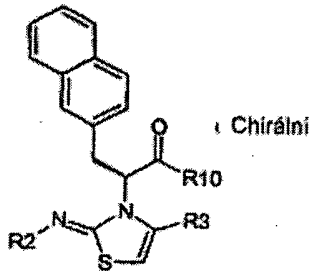


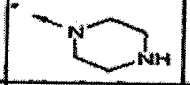
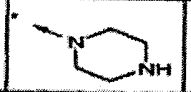
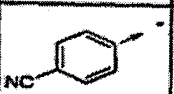
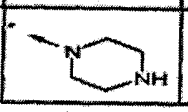
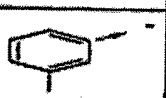
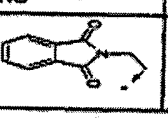
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
2682				70,6	3,94	636,26
2683				55,3	4,14	583,24
2684				85,3	4,49	621,22
2685				86,1	4,1	578,2
2686				72,7	4,09	650,26
2687				87,5	3,74	513,20
2688				86,1	4,1	551,16
2689				87,4	3,6	506,2
2690				87,9	3,73	580,18
2691				87,2	3,89	527,21
2692				88,3	4,24	565,15
2693				89,8	3,8	522,2
2694				92,5	3,86	594,17

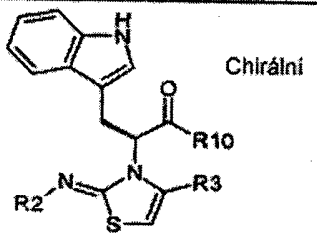


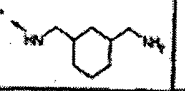
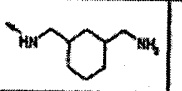
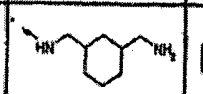
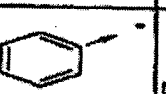
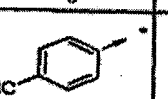
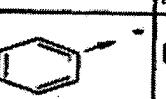
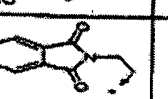
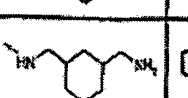
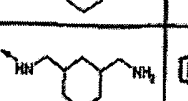
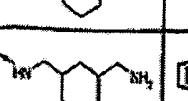
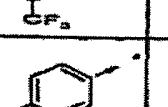
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2695				69,9	4,14	605,25
2696				81,8	4,55	643,21
2697				65,3	4,1	600,2
2698				69,2	4,11	672,25
2699				74,0	4,28	619,24
2700				69,3	4,67	657,24
2701				75,9	4,3	614,2
2702				84,8	4,27	686,27
2703				86,6	3,91	549,16
2704				77,7	4,26	587,13
2705				89,4	3,8	544,1
2706				88,0	3,9	616,19
2707				79,9	4,06	563,18

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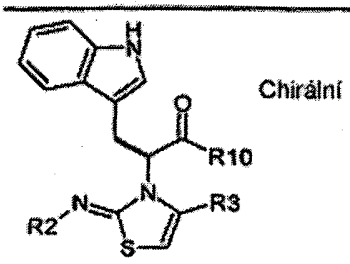


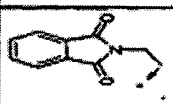
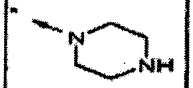
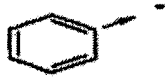
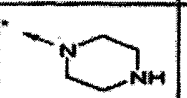
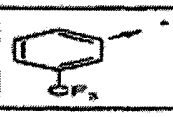
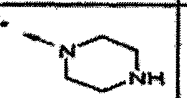
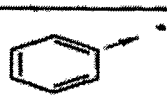
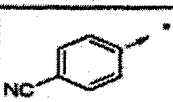
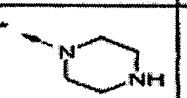
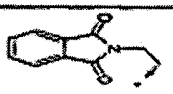
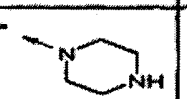
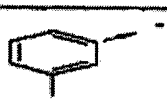
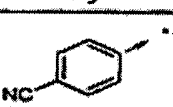
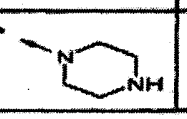
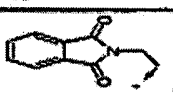
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2708				75,9	4,38	601,14
2709				62	3,9	603,2
2710				87,7	4,05	630,21



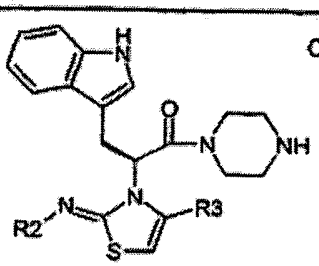
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2711				56,8	3,85	594,20
2712				69,7	4,18	632,22
2713				62,2	3,7	589,2
2714				79,2	3,76	681,23
2715				56,8	4	608,23
2716				70,5	4,31	646,23
2717				62	3,9	603,2

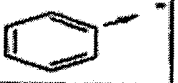
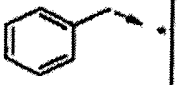
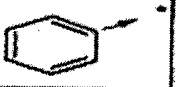
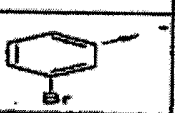
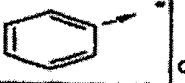
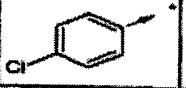
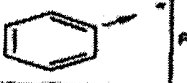
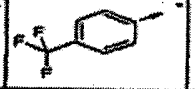
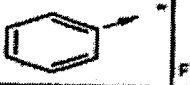
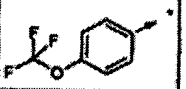
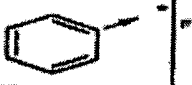
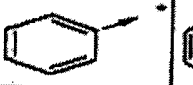
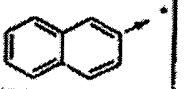
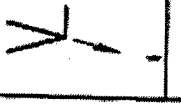
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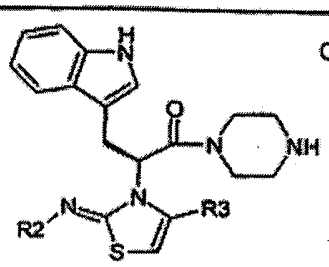
Př.	R10	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2718				76,9	3,92	675,26
2719				75,5	3,63	538,18
2720				79,4	3,96	576,13
2721				73	3,5	533,2
2722				87,0	3,56	605,17
2723				81,8	3,8	552,18
2724				80,1	4,11	590,15
2725				79,4	3,6	547,2
2726				86,3	3,73	619,18

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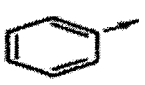
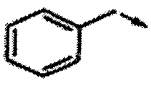
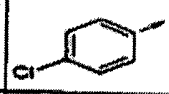
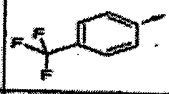
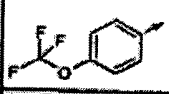
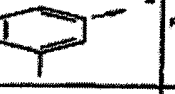
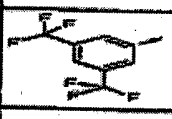
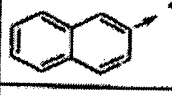
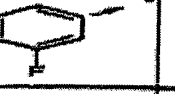
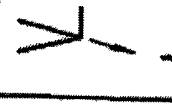


Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2727			73,7	4,7	488,3
2728			87,1	4,2	508,2
2729			90,3	4,3	522,3
2730			78,2	4,5	586,1
2731			73	4,1	533,2
2732			86,4	4,5	542,2
2733			77,7	4,6	576,2
2734			80	4,7	592,2
2735			76,4	4,9	644,2
2736			81,4	4,6	558,2
2737			79,8	4,4	502,3

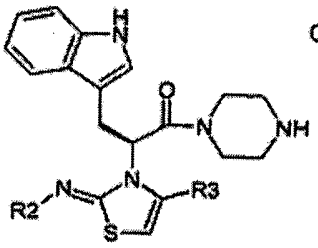
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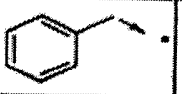
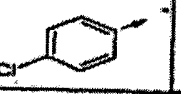
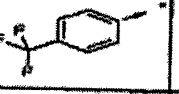
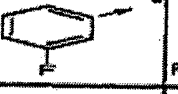
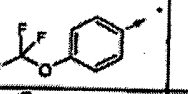
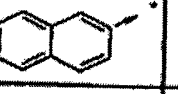


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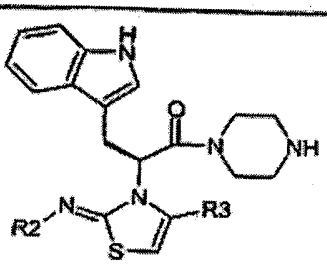
Př.	R2	R3	Čistota(%)	Ret.(min)	$[M+H]^+$
2738			87,5	4,4	522,3
2739			91,4	4,5	536,3
2740			83,3	4,6	600,1
2741			82	4,3	547,2
2742			83,9	4,6	556,2
2743			85,4	4,7	590,2
2744			85,2	4,8	606,2
2745			82	4,3	658,2
2746			86,7	4,7	572,2
2747			31,6	4,3	506,3
2748			71,1	4,3	526,2

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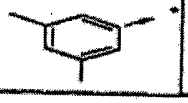
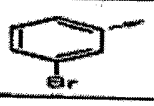


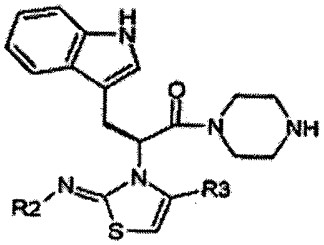
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2749			89,5	4,4	540,2
2750			59,6	4,5	604,1
2751			51,3	4,2	551,2
2752			62,2	4,5	560,2
2753			59,6	4,7	594,2
2764			63	4,7	610,2
2755			52,5	4,9	662,2
2756			67,8	4,6	576,1
2757			81,1	4,6	516,3
2758			85,8	4,5	536,3
2759			85,4	4,7	550,3

23.01.04

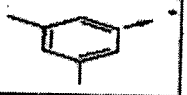
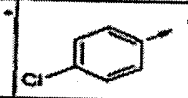
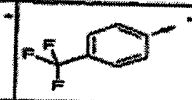
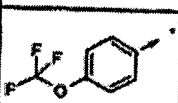
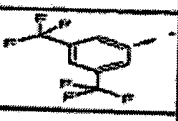
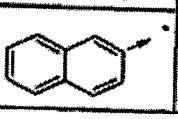


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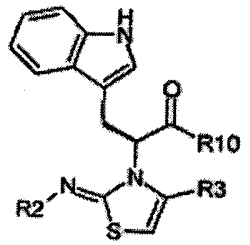
Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2760			76,6	4,7	614,1



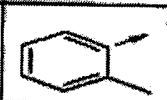
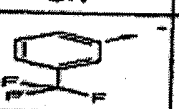
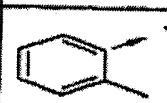
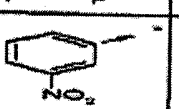
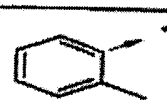
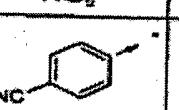
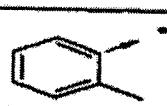
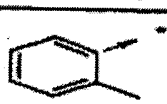
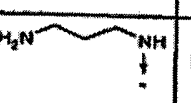
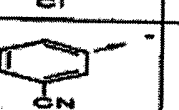
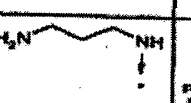
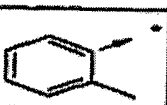
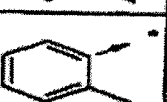
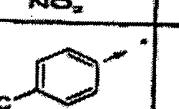
Chirální

Př.	R2	R3	Čistota(%)	Ret.(min)	[M+H]+
2761			77,2	4,4	561,2
2762			85,4	4,7	570,2
2763			79,7	4,8	604,2
2764			81,1	4,9	620,2
2765			79,2	5,1	672,2
2766			82	4,8	586,3

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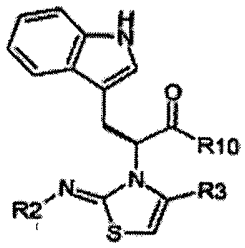


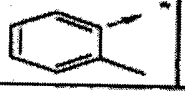
Chirální

Př.	R2	R10	R3	Čistota(%)	Ret.(min)	(M+H)+
2767				64,3	3,91	530,20
2768				58,3	3,57	521,22
2769				66,7	4,03	564,20
2770				65,1	3,71	541,19
2771				56,1	3,58	521,21
2772				42,1	3,93	544,19
2773				34,6	3,59	535,22
2774				46,9	4,05	578,21
2775				33,3	3,73	555,19
2776				33,4	3,6	535,22
2777				39,6	3,97	558,22

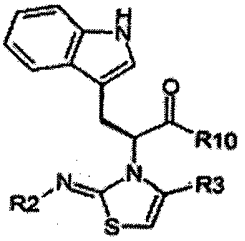
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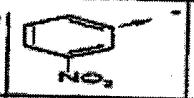
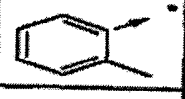
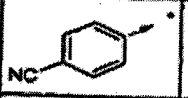
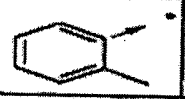
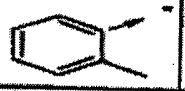
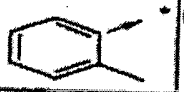
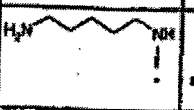
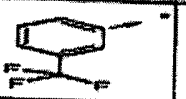
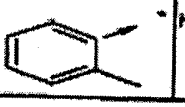
Chirální



Př.	R2	R10	R3	Čistota(%	Ret.(min)	[M+H]+
2778				47,5	3,63	549,23
2779				50,3	4,09	592,23

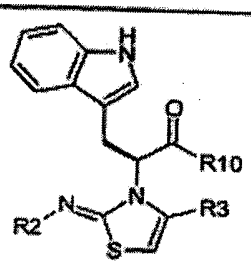
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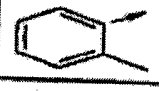
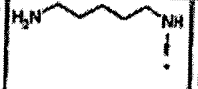
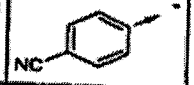
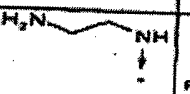
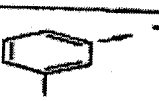
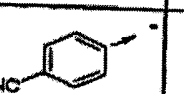
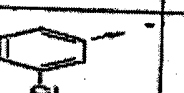


Př.	R2	R10	R3	Čistota(%	Ret.(min)	[M+H]+
2780				40,6	3,76	569,19
2781				42,7	3,63	549,25
2782				35,5	4,0	572,17
2783				33,2	3,69	563,26
2784				45	4,1	606,27
2785				36,0	3,82	583,23

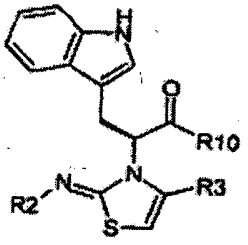
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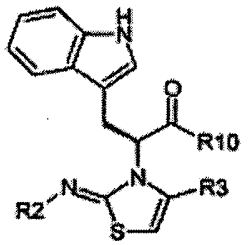
Př.	R2	R10	R3	Čistota(%)	Ret.(min)	[M+H]+
2786				27,1	3,7	563,26
2787				73,6	3,98	530,19
2788				62,5	3,64	521,21
2789				74,8	4,09	564,2
2790				67,7	3,77	541,20
2791				71,3	3,65	521,21
2792				52,4	4,0	544,18

Chirální

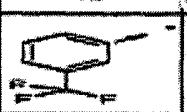
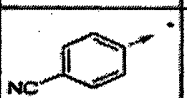
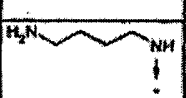
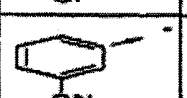
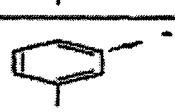
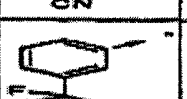
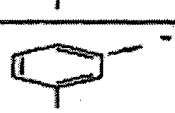
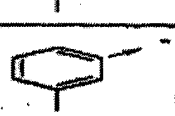
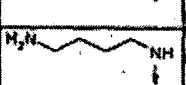
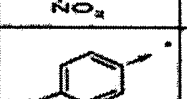
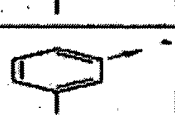
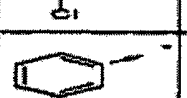


Př.	R2	R10	R3	Čistota(%)	Ret. (min)	[M+H]+
2793				47,0	3,65	535,22

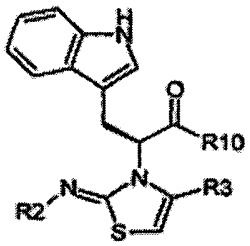
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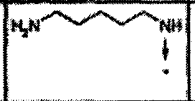
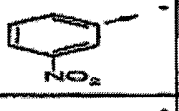
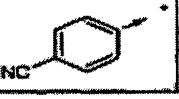
Chirální

Př.	R2	R10	R3	Čistota(%)	Ret.(min)	[M+H]+
2794				54,7	4,11	578,22
2795				43,7	3,79	555,20
2796				44,6	3,67	535,22
2797				53,7	4,03	558,20
2798				51,0	3,69	549,23
2799				56,5	4,15	592,23
2800				48,9	3,83	569,20
2801				46,0	3,7	549,24
2802				41,2	4,1	572,21
2803				35,7	3,76	563,26
2804				47,4	4,2	606,26

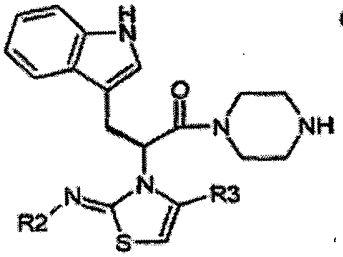
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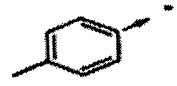
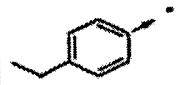
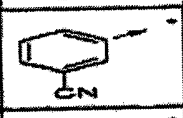
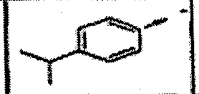
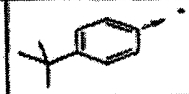
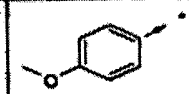
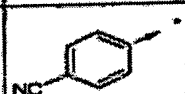
Chirální

Př.	R2	R10	R3	Čistota(%)	Ret.(min)	[M+H]+
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2806				37,3	3,76	563,26

23.01.04

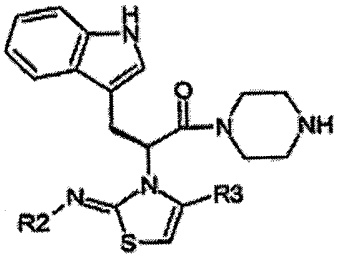


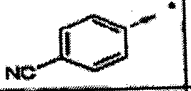
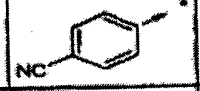
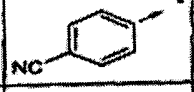
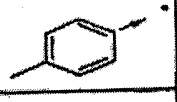
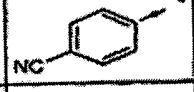
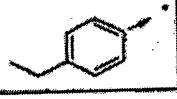
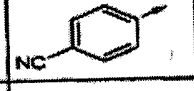
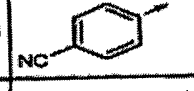
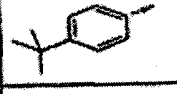
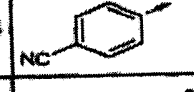
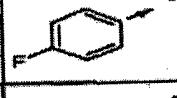
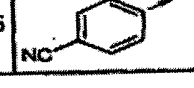
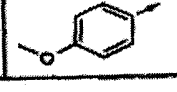
Chirální

Př.	R3	R2	Čistota(%)	Ret.(min)	[M+H]⁺
2807			52,1	3,65	547,22
2808			61,7	3,61	563,24
2809			54,1	3,91	561,26
2810			56,7	3,69	563,23
2811			54,7	3,65	547,23
2812			63,6	3,96	561,25
2813			66,1	4,13	575,26
2814			34,9	4,29	589,29
2815			69,3	3,66	563,24
2816			47,6	3,66	547,23
2817			41,4	3,61	563,23

23.01.04

Chirální



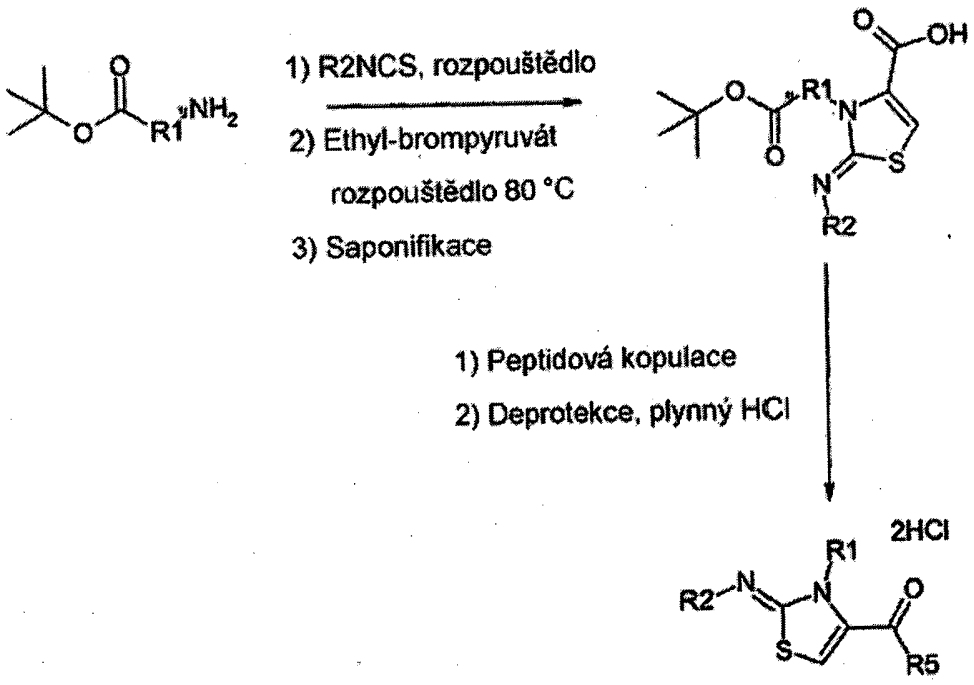
Př.	R3	R2	Čistota(%)	Ret.(min)	[M+H]+
2818			28,5	3,97	561,24
2819			56,4	3,71	563,23
2820			45,6	3,65	547,22
2821			62,6	3,99	561,24
2822			42,0	4,17	575,26
2823			45,7	4,32	589,28
2824			23,5	3,65	551,21
2825			70,9	3,67	563,22

23.01.04

Jisté sloučeniny podle předloženého vynálezu mohou být získány způsobem G popsaným dále.

Způsob G

Syntéza v roztoku derivátů 2-iminothiazol-4-karboxamidů, vycházejíce ze symetrických diaminů s jednou chráněnou skupinou (Boc)



Obecný způsob:

Symetrický diamin s jednou chráněnou skupinou (Boc) (1 ekv.) se míchá po jednu noc s aromatickým isothiokyanátem (1 ekv.) za teploty okolí v bezvodém rozpouštědle jako je dioxan, dimethylformamid nebo chloroform. Do surového

isothiomočovinového meziproduktu se přidá postupně 1 ekvivalent anorganické báze jako je hydrogenuhličitan sodný nebo draselný a 1 ekvivalent ethyl-brompyruvátu, předem rozpuštěného v bezvodém rozpouštědle jako je dioxan nebo dimethylformamid. Směs se potom zahřívá na teplotu 80 °C po dobu 1 až 3 hodin a anorganické sole se odstraní filtrací. Rozpouštědla se odpaří za vakua a residuum se čistí mžikovou chromatografií na silikagelu používajíce gradient směsi ethylacetát/heptan. Saponifikace esterového meziproduktu se provádí v rozpouštědle jako je tetrahydrofuran pomocí roztoku 1N KOH, LiOH nebo NaOH. Směs se intenzívně míchá po dobu 6 až 20 hodin za teploty okolí a potom se okyselí vodným roztokem 1N kyseliny chlorovodíkové až na pH 2,5. Organická fáze se několikrát extrahuje pomocí dichlormethanu a potom se organické fáze promývají vodou až na neutrální pH a suší se nad síranem sodným.

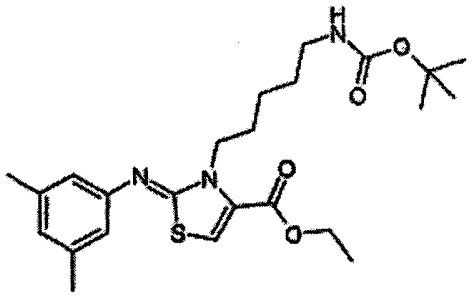
Do roztoku meziproduktu představovaného karboxylovou kyselinou (1 ekv.) a činidla peptidové kopulace jako je DIC, DIC/HOBt, HATU nebo TBTU (1,1 až 2 ekv.), předem rozpuštěné v bezvodém rozpouštědle jako je dimethylformamid, se přidá pod argonovu atmosférou primární nebo sekundární amin (1,1 až 2 ekv.) předem rozpuštěný v bezvodém rozpouštědle jako je dimethylformamid. Směs se míchá přes noc za teploty okolí. Rozpouštědlo se odpaří za vakua a residuum se čistí mžikovou chromatografií na silikagelu, používajíce gradient směsi ethylacetát/heptan. Karboxamidový meziprodukt se zředí v rozpouštědle jako je dichlormethan nebo ethylacetát a zbaví se ochrany po

průchodu proudu suchého chlorovodíku roztokem po dobu 1 až 6 hodin za teploty okolí. Odpovídající dihydrochlorid se isoluje buď filtrací precipitátu a nebo, po odpaření rozpouštědla za vakua, přidáním diethyletheru pro lepší krystalizaci.

Příprava 25

Ethyl-(2Z)-3-{terc.-butoxykarbonyl)amino]pentyl}-2-[(3,5-dimethylfenyl)imino]-2,3-dihydro-1,3-thiazol-4-karboxylát

($C_{24}H_{35}N_3O_4S$; molekulová hmotnost = 461, 63)



N-Boc-1,5-diaminopentan (1, 04 g; 5 mmol) se míchá s 3,5-dimethylisothiokyanátem (824 mg; 5 mmol) v 10 ml bezvodého dioxanu. Do surového isothiomočovinového meziproduktu se přidá postupně 420 mg (5 mmol) hydrogenuhličitanu sodného a 1,08 g (5 mmol) ethyl-brompyruvátu předem rozpuštěného v 2 ml bezvodého dioxanu. Směs se potom zahřívá na teplotu 80 °C po dobu jedné hodiny a anorganické sole se odstraní filtrací. Dioxan se odpaří za vakua a žluté residuum se čistí mžikovou chromatografií na silikagelu (vymývací

rozpouštědlo: ethylacetát/heptan 2: 8 a potom 3: 7). Takto se získá žluty olej (1, 8 g; výtěžek 77, 9%) odpovídající očekávané sloučenině.

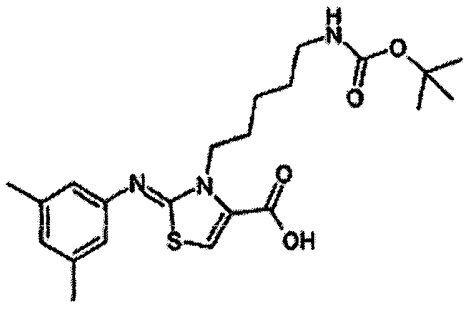
^{1}H NMR (DMSO-d6, 400 MHz) δ: 7, 23 (s, 1H); 6, 71 (široký s, 1H); 6,65 (s, 1H); 6,54 (s, 2H); 4,26 (q, 2H, J = 6,4 Hz); 4,13 (t, 2H, J = 6,4 Hz); 2,9 (q, 2H, J = Hz); 2,22 (s, 6H); 1,63 (m, 2H); 1,4 (m, 2H); 1,36 (s, 9H); 1,29-1,23 (m, 2H + 3H).

SM/CL: m/z = 462, 3 (M+H)+.

Příprava 26

Kyselina (2Z)-3-{5-[(terc.-butoxykarbonyl)amino]pentyl}-2-[(3,5-dimethylfenyl)imino]-2,3-dihydro-1,3-thiazol-4-karboxylová

($CH_{22}H_{31}N_3O_4S$; molekulová hmotnost = 433, 57)



Sloučenina z přípravy 25 (1, 77 g; 3, 83 mmol) se rozpustí v 20 ml tetrahydrofuranu a zpracovává se 15 ml vodného

roztoku 1N NaOH. Směs se intenzívně míchá po dobu 6 hodin za teploty okolí. Karboxylát se potom okyselí vodným roztokem 1N kyseliny chlorovodíkové až na pH 2,5. Vodná fáze se extrahuje pomocí dichlormethanu (4 x 50 ml) a organické fáze se promývají vodou až na neutrální pH a suší se nad síranem sodným. Po odpaření rozpouštědel za vakua se isoluje žlutá pevná látka (1,51 g; výtěžek 90,9%).

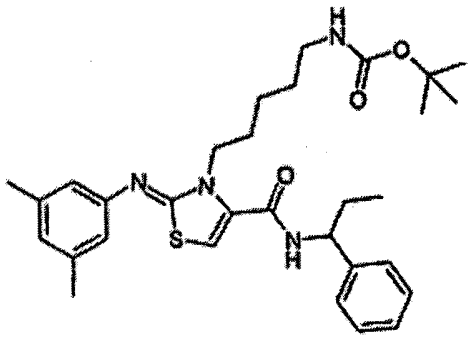
^{1}H NMR (DMSO-d6, 400 MHz) δ: 13,28 (široký s, 1H); 7,16 (s, 1H); 6,69 (široký s, 1H); 6,65 (s, 1H); 6,54 (s, 2H); 4,17 (t, 2H, J = 7,2 Hz); 2,89 (q, 2H, J = 6,4 Hz); 2,22 (s, 6H); 1,63 (q, 2H, J = 6,8 Hz); 1,41 (m, 2H); 1,36 (s, 9H); 1,25 (m, 2H).

SM/CL: m/z = 434,27 (M+H) +.

Příprava 27

Terc.-butyl-5-[(2Z)-2-[(3,5-dimethylfenyl)imino]-4-{[(1-fenylpropyl)amino]karbonyl}-1,3-thiazol-3(2H)-yl]pentylkarbamát

($C_{31}H_{42}N_4O_3S$; molekulová hmotnost = 550,76)



600 mg (1,38 mmol) karboxylové kyseliny z přípravy 26 se předem aktivuje pomocí 888 mg (2,76 mmol; 2 ekv.) TBTU v 10 ml bezvodého dimethylformamidu po dobu jedné hodiny. Potom se přidá 410 µl (2,76 mmol; 2 ekv.) α-ethylbenzylaminu a směs se míchá za teploty okolí přes noc. Po odpaření dimethylformamidu se surové residuum čistí mžikovou chromatografií na silikagelu (vymývací rozpouštědlo: ethylacetát/heptan 4: 6) pro získání bílé pevné látky (498 mg; výtěžek 65,5%).

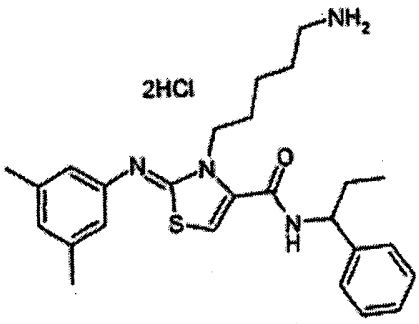
^{1}H NMR (DMSO-d6, 400 MHz) δ: 9,00 (d, 1H, J = 8,4 Hz); 7,36-7,30 (m, 4H); 7,25-7,21 (m, 1H); 6,72 (t, 1H, J = 5,4 Hz); 6,67 (s, 1H); 6,63 (s, 1H); 6,53 (s, 2H); 4,77 (q, 1H, J = 8,8 Hz); 3,95 (m, 2H); 2,84 (q, 2H, J = Hz); 2,21 (s, 6H); 1,74 (m, 2H); 1,51 (m, 2H); 1,36 (s, 9H); 1,31 (q, 2H, J = 7,2 Hz); 1,13 (m, 2H); 0,89 (t, 3H, J=7,2 Hz).

SM/CL: m/z = 551,44 (M+H) +.

Příklad 2826

Dihydrochlorid (2Z)-3-(5-aminopentyl)-2-[(3,5-dimethylfenyl)imino]-N-(1-fenylpropyl)-2,3-dihydro-7,3-thiazol-4-karboxamid

($C_{26}H_{34}N_4OS$. 2HCl; molekulová hmotnost = 523,57)



300 mg (0,54 mmol) terc.-butyl-5-[(2Z)-2-[(3,5-dimethylfenyl)imino]-4-{[(1-fenylpropyl)amino]karbonyl}-1,3-thiazol-3(2H)-yl]pentylkarbamátu se rozpustí v 15 ml ethylacetátu. Po probublávání bezvodým chlorovodíkem po dobu jedné hodiny za teploty okolí precipituje odpovídající dihydrochloridová sůl. Tato sůl se získá filtrací a promývá se pomocí diethyletheru pro získání bílé pevné látky (268 mg; výtěžek 94,8%).

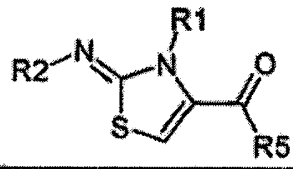
^1H NMR (DMSO-d6, 400 MHz) δ: 9,48 (široký s, 1H); 8,03 (široký s, 3H); 7,39-7,32 (m, 5H); 7,25 (t, 1H, J = 7,2 Hz); 7,00 (m, 3H); 4,80 (q, 1H, J = 8,4 Hz); 4,33 (široký s, 2H); 2,70 (q, 2H, J = 6,8 Hz); 2,29 (s, 6H); 1,77 (m, 2H); 1,65 (m, 2H); 1,52 (m, 2H); 1,27 (m, 2H); 0,89 (t, 3H, J = 7,2 Hz).

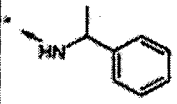
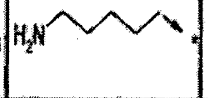
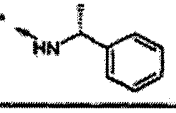
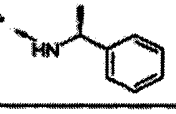
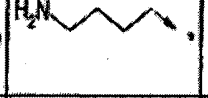
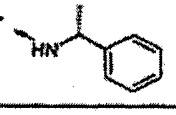
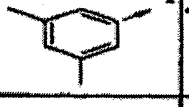
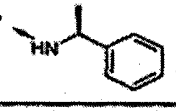
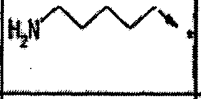
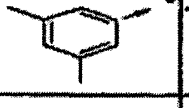
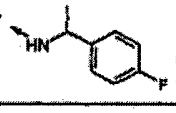
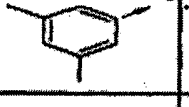
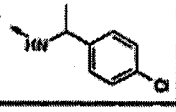
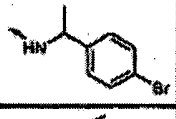
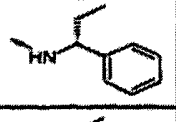
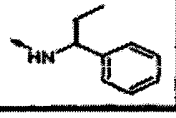
SM/CL: m/z = 451,35 $(M+H)^+$.

Série sloučenin může být syntetizována způsobem G; tyto sloučeniny zahrnují sloučeniny, ve kterých:

- skupiny R1 a R2 již byly popsány pro způsob A; a
- skupiny R5 již byly popsány pro způsob C.

Zejména byly použitím způsobu G syntetizovány sloučeniny, uvedené v následující tabulce.



Př.	R1	R2	R5	Čistota (%)	Ret. (min)	[M+H]+
2827				69 + 27	4.57 + 4.73	477,33
2828				98	4,36	437,29
2829				98	4,37	437,33
2830				98	3,72	423,37
2831				99	3,73	423,37
2832				99	4,07	455,32
2833				99	4,29	471,32
2834				98	4,33	515,24
2835				99	3,87	451,34
2836				99	3,88	451,34

Farmakologické vlastnosti produktů podle předloženého vynálezu

Sloučeniny podle předloženého vynálezu mohou být a byly testovány na jejich afinitu pro různé podtypy receptorů somatostatinu způsoby uvedenými dále.

Studie afinity pro podtypy lidských receptorů somatostatinu:

Afinita sloučenin podle předloženého vynálezu pro podtypy receptorů somatostatinu 1 až 5 (sst_1, sst_2, sst_3, sst_4 a sst_5) se určuje měřením inhibice vazby [^{125}I-Tyr^{11}]SRIF-14 k transfektovaným buňkám CHO-K1.

Gen lidského receptoru somatostatinu sst_1 byl klonován ve formě genomického fragmentu. Segment PstI-XmnI o velikosti 1,5 Kb a obsahující 100 párů bází netranskribované oblasti 5', celkově 1,17 Kb kódující oblasti a 230 párů bází netranskribované oblasti 3' se modifikuje přidáním linkeru BglII. Vzniklý fragment DNA se subklonuje v místě BamM ve pCMV-81 pro získání plasmidu exprese u savců (dodal Dr. Graeme Bell, Univ. Chicago). Linie klonovaných buněk exprimujících stabilním způsobem receptor sst_1 se získají transfekcí v buňkách CHO-K1 (ATCC) způsobem koprecipitace fosforečnanu vápenatého. Plasmid pRSV-neo (ATCC) je zahrnut jako je označení selekce. Linie klonovaných buněk byly vybrány v médiu RPMI 1640 obsahujícím 0,5 mg/ml G418 (Gibco), klonované v kruhu a množené v kultuře.

Gen lidského receptoru somatostatinu sst_2, isolovaný ve formě genomického fragmentu DNA 1,7 Kb BamHI-HindIII a vklonovaný do plasmidového vektoru pGEM3Z (Promega), dodal Dr. G. Bell (Univ. of Chicago). Vektor exprese savčích buněk je konstruován vložením fragmentu BamH1-HindII o 1,7 Kb v slučitelných endonukleázových restrikčních místech plasmidu pCMV5. Linie klonovaných buněk se získají transfekcí v buňkách CHO-K1 způsobem koprecipitace fosforečnanu vápenatého. Plasmid pRSV-neo (ATCC) je zahrnut jako je označení selekce.

Receptor sst_3 se isoluje jako genomický fragment a úplná kódující sekvence je obsažena ve fragmentu BamHI/HindIII o 2,4 Kb. Plasmid exprese u savců, pCMV-h3, je konstruován vložením fragmentu NcoI-HindIII o 2,0 Kb v místě EcoR1 vektoru pCMV po modifikaci zakončení a přidání linkerů EcoR1. Linie klonovaných buněk exprimující stabilním způsobem receptor sst_3 se získají transfekcí v buněk CHO-K1 (ATCC) způsobem koprecipitace fosforečnanu vápenatého. Plasmid pRSV-neo (ATCC) je zahrnut jako je označení selekce. Linie klonovaných buněk byly vybrány v médiu RPMI 1640 obsahujícím 0,5 mg/ml G418 (Gibco), klonované v kruhu a množené v kultuře.

Plasmid exprese lidského receptoru sst_4, pCMV-HX, dodal Dr. Graeme Bell (Univ. Chicago). Tento vektor obsahuje genomický fragment kódující lidský receptor sst_4 o 1,4 Kb NheI-NheI, 456 párů bází netranskribované oblasti 5' a 200 párů bází netranskribované oblasti 3', klonovaný v místě XbaI/EcoR1 v PCMV-HX. Linie klonovaných buněk exprimující

stabilním způsobem receptor sst_4 se získají transfekcí v buňkách CHO-K1 (ATCC) způsobem koprecipitace fosforečnanu vápenatého. Plasmid pRSV-neo (ATCC) je zahrnut jako je označení selekce. Linie klonovaných buněk byly vybrány v médiu RPMI 1640 obsahujícím 0,5 mg/ml G418 (Gibco), klonované v kruhu a množené v kultuře.

Gen odpovídající lidskému receptoru sst_5, získaný způsobem PCR používajíce genomický klon λ jako sondu, dodal Dr. Graeme Bell (Univ. Chicago). Vzniklý fragment PCR o 1,2 Kb obsahoval 21 párů bází netranskribované oblasti 5', celou kódující oblast a 55 párů bází netranskribované oblasti 3'. Klon se vloží do místa EcoR1 plasmidu pBSSK(+). Insert se získá ve formě fragmentu HindIII-XbaI o 1,2 Kb pro subklonování v savčím vektoru exprese, pCVM5. Linie klonovaných buněk exprimující stabilním způsobem receptor ssts se získají transfekcí v buňkách CHO-K1 (ATCC) způsobem koprecipitace fosforečnanu vápenatého. Plasmid pRSV-neo (ATCC) je zahrnut jako je označení selekce. Linie klonovaných buněk byly vybrány v médiu RPMI 1640 obsahujícím 0,5 mg/ml G418 (Gibco), klonované v kruhu a množené v kultuře.

Buňky CHO-K1 exprimující stabilním způsobem jeden z lidských receptorů sst se kultivují v médiu RPMI 1640 obsahujícím 10% telecího fetálního séra a 0,4 mg/ml geneticinu. Buňky se seberou s využitím EDTA 0,5 mM a centrifugují se za 500 g po dobu přibližně 5 minut za teploty přibližně 4 °C. Centrifugát se resuspenduje v pufru 50 mM Tris, pH 7,4, a centrifuguje dvakrát při 500 g po

dobu přibližně 5 minut za teploty přibližně 4 °C. Buňky se lýzují sonikací a centrifugují při 39000 g po dobu přibližně 10 minut za teploty 4 °C. Centrifugát se resuspenduje ve stejném pufru a centrifuguje při 50000 g po dobu 10 minut za teploty přibližně °C a membrány v získaném centrifugátu se uchovávají za teploty -80 °C.

Testy kompetitivní inhibice vazby s [^{125}I-Tyr^{11}] SRIF-14 se provádějí dvojmo na destičkách z polypropylenu s 96 jamkami. Buněčné membrány (10 µg protein/jamku) se inkubují s [^{125}I-Tyr^{11}] SRIF-14 (0,05 nM) po dobu přibližně 60 minut za teploty přibližně 37 °C v pufru 50 mM HEPES (pH 7,4) obsahujícim 0,2% BSA, 5 mM $MgCl_2$, 200 KIU/ml Trasylolu, 0,02 mg/ml bacitracinu a 0,02 mg/ml fenylmethylsulfonyl-fluoridu.

Vázané [^{125}I-Tyr^{11}] SRIF-14 se oddělí od volných [^{125}I-Tyr^{11}] SRIF-14 okamžitou filtrací přes filtrační desky ze skleněných vláken GF/C (Unifilter, Packard) předem navlhčených 0,1 % polyethyleniminem (P.E.I.), používajíce filtrační zařízení Filtermate 196 (Packard). Filtry se promývají pomocí pufru 50 mM HEPES o teplotě přibližně 0-4 °C po dobu přibližně 4 sekund a jejich radioaktivita se určuje počítačem (Packard Top Count).

Specifická vazba se získá odečtěním nespecifické vazby (určena v přítomnosti 0,1 M SRIF-14) od celkové vazby. Relativní hodnoty vztahující se k vazbě se analyzují nelineární regresní analýzou podporovanou počítačem (MDL) a určí se hodnoty konstant inhibice (Ki).

Určení agonistického nebo antagonistického charakteru sloučeniny podle předloženého vynálezu se provádí pomocí dále popsaného testu.

Funkční test: Inhibice produkce intrabuněčného cAMP:

Buněk CHO-K1 exprimující subtypy lidských receptorů somatostatinu (SRIF-14) se kultivují v destičkách s 24 jamkami v médiu RPMI 1640 s 10% telecího fetálního séra a 0,4 mg/ml geneticinu. Médium se vymění v den předcházející pokusům.

Buňky v počtu 10^5 buněk/jamku se promývají dvakrát 0,5 ml nového média RPMI obsahujícího 0,2 % BSA doplněného o 0,5 mM 3-isobutyl-1-methylxanthinu (IBMX) a inkubují se po dobu přibližně 5 minut za teploty přibližně 37 °C.

Produkce cyklického AMP se stimuluje přidáním 1 mM forskolinu (FSK) po dobu 15-30 minut za teploty přibližně 37 °C.

Inhibiční účinek pro somatostatin u agonistické sloučeniny se měří současným přidáním FSK (1 μM), SRIF-14 (10^{-12} M až 10^{-6} M) a testované sloučeniny (10^{-10} M a 10^{-5} M).

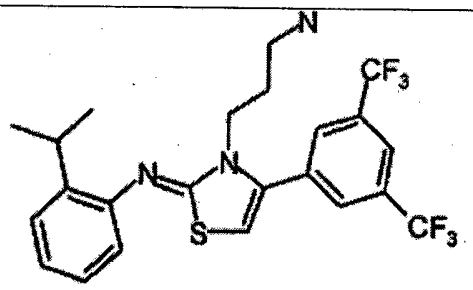
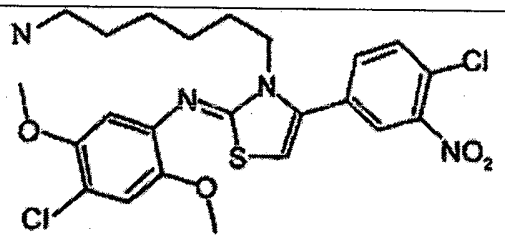
Antagonistický účinek sloučeniny se měří přidáním současným FSK (1 μM), SRIF-14 (1 až 10 nM) a testované sloučeniny (10^{-10} M až 10^{-5} M).

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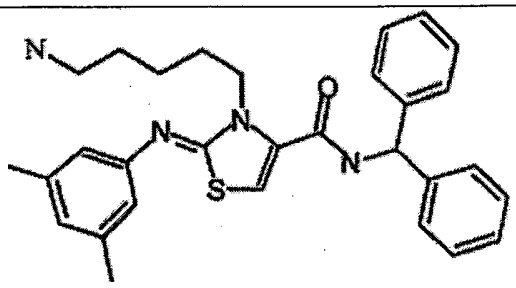
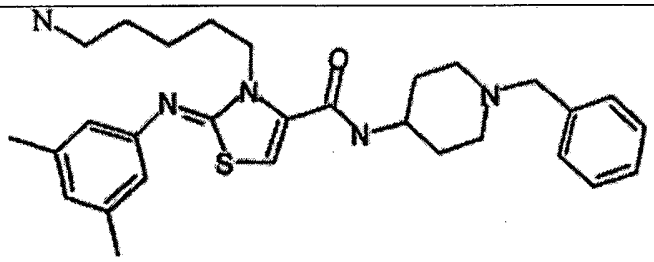
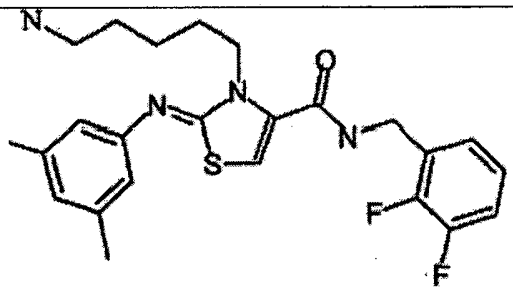
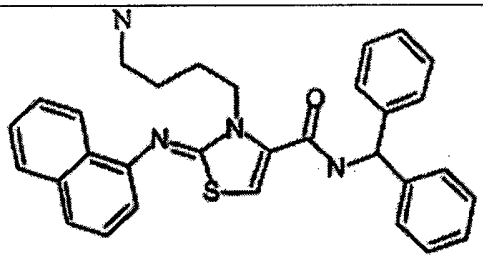
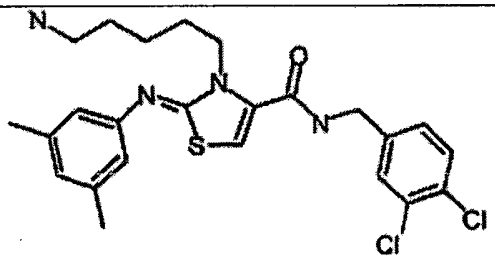
Reakční prostředí se odstraní a přidá se 200 ml HCl 0,1. Množství cAMP se měří radioimunologickým testem (Kit FlashPlate SMP001A, New England Nuclear).

Výsledky:

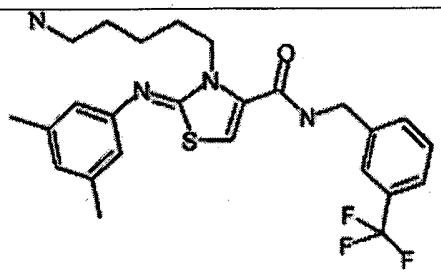
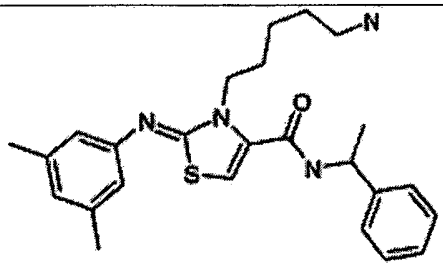
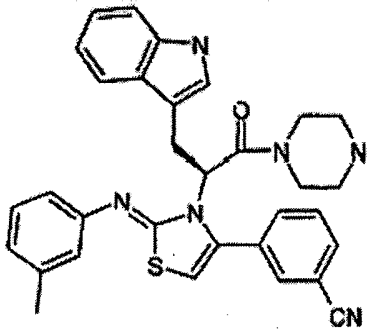
Testy prováděné podle výše popsaných protokolů umožnily prokázat, že produkty obecného vzorce (I) definovaného v předložené přihlášce vynálezu mají dobrou afinitu pro alespoň jeden z podtypů receptorů somatostatinu, inhibiční konstanta Ki je nižší než mikromolární pro jisté sloučeniny z příkladů a zejména pro produkty uvedené v následující tabulce.

Obecný vzorec sloučeniny	K_i (nM)
	< 200
	< 200

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	< 200
	< 200
	< 200
	< 200
	< 200

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	< 200
	< 200
	< 200

Krom sloučenin v předchozích tabulkách každá ze sloučenin z příkladů 2827 až 2836 vykazuje také konstantu K_i nižší než 200 nM.

Zastupuje:

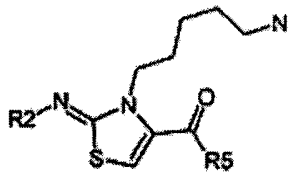
Dr. Otakar Švorčík

JUDr. Otakar Švorčík
advokát
Hálkova 2, 120 00 Praha 2

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PV 2003-191

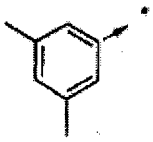
P A T E N T O V É N Á R O K Y

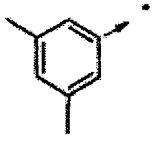
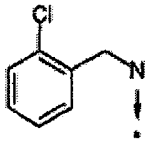
1. Sloučenina obecného vzorce



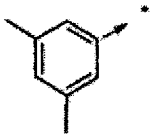
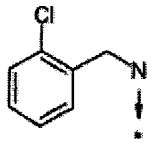
(I)

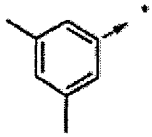
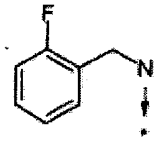
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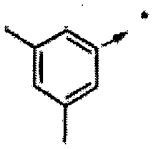
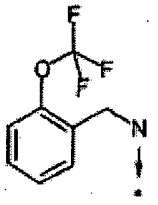
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- R2 představuje zbytek  a R5 představuje zbytek  .

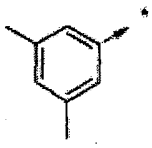
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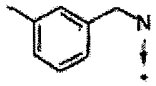
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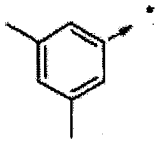
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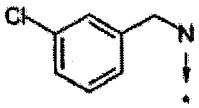
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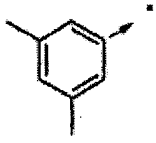
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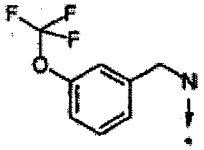
- R2 představuje zbytek a R5 představuje zbytek



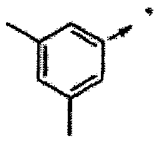
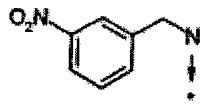
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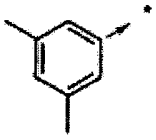
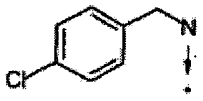


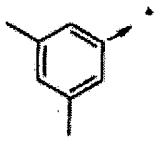
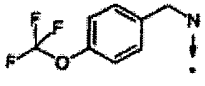
- R2 představuje zbytek a R5 představuje zbytek

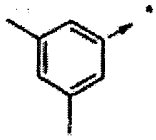
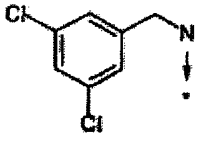


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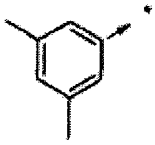
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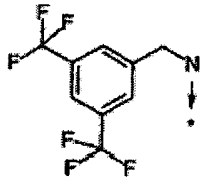
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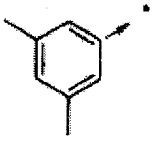
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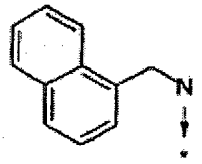
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- R2 představuje zbytek  a R5 představuje zbytek

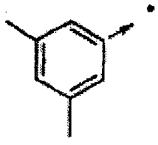


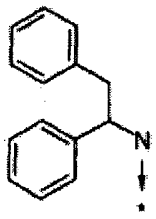
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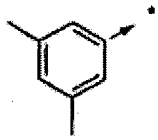
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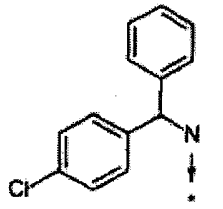
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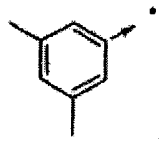
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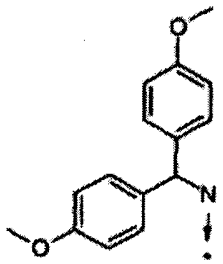
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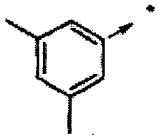


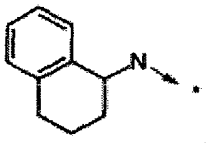
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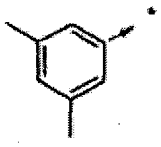


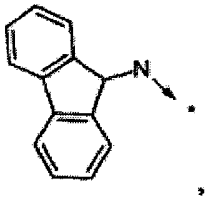
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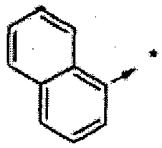
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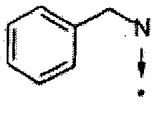


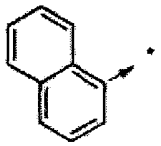
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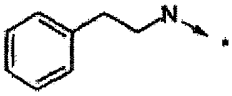
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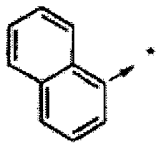


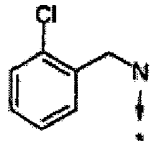
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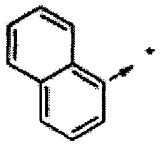
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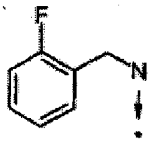


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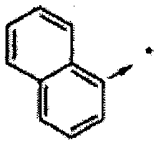


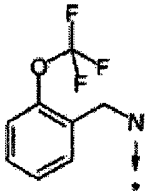
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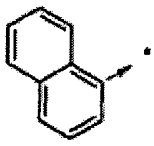


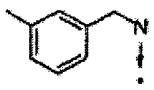
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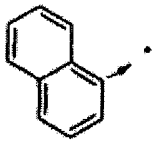


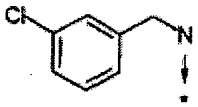
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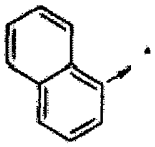


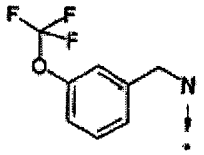
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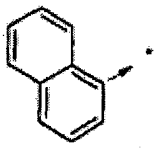


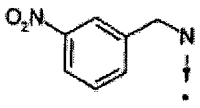
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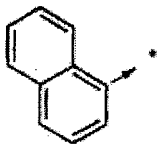


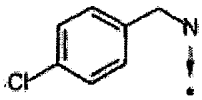
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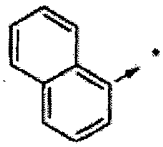


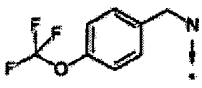
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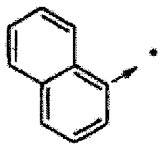


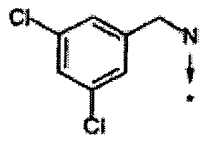
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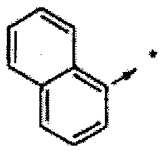


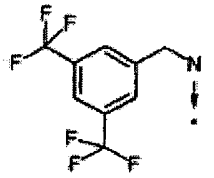
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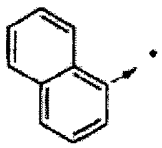


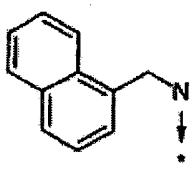
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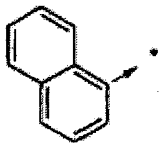


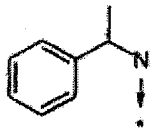
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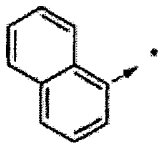


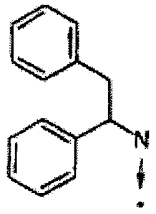
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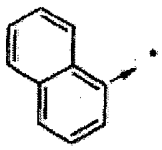


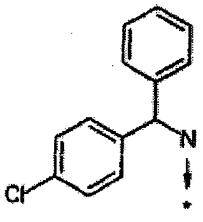
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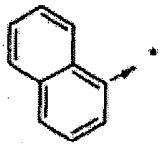
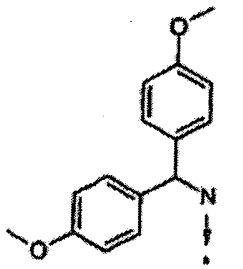


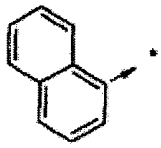
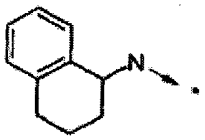
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- R2 představuje zbytek  a R5 představuje zbytek

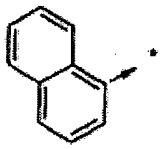
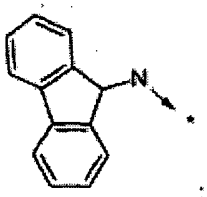


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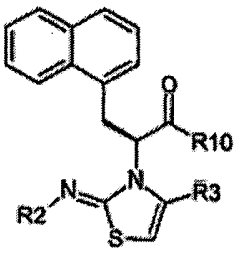
- R2 představuje zbytek  a R5 představuje zbytek  ,

- R2 představuje zbytek  a R5 představuje zbytek  ,

nebo nakonec

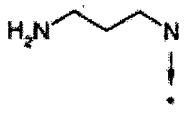
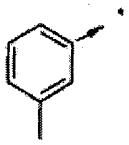
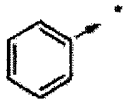
- R2 představuje zbytek  a R5 představuje zbytek  ;

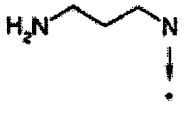
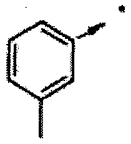
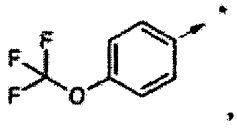
• nebo obecného vzorce



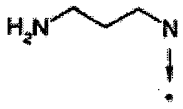
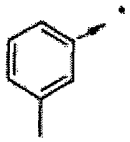
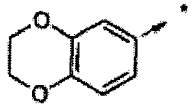
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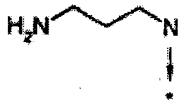
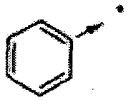
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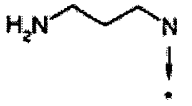
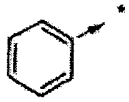
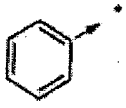
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

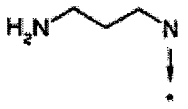
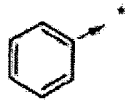
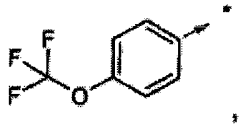
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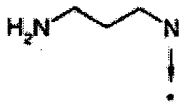
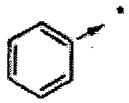
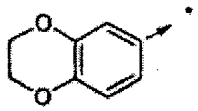
- R10 představuje  , R2 představuje  a R3 představuje  ,

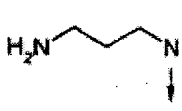
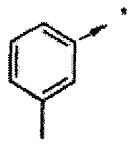
- R10 představuje  , R2 představuje  a R3 představuje  ,

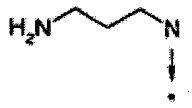
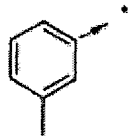
- R10 představuje  , R2 představuje  a R3 představuje  .

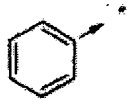
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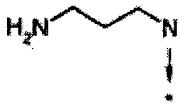
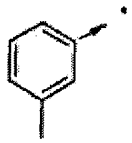
- R10 představuje  , R2 představuje  a R3 představuje  ,

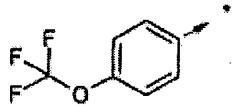
- R10 představuje  , R2 představuje  a R3 představuje  ,

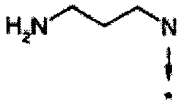
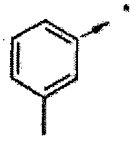
- R10 představuje  , R2 představuje  a R3 představuje  ,

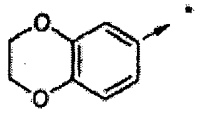
- R10 představuje  , R2 představuje  a

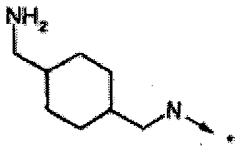
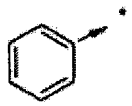
R3 představuje  ,

- R10 představuje  , R2 představuje  a

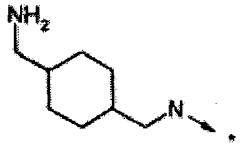
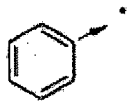
R3 představuje  ,

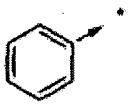
- R10 představuje  , R2 představuje  a

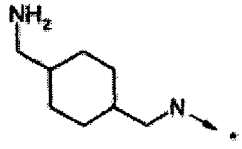
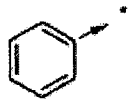
R3 představuje  ,

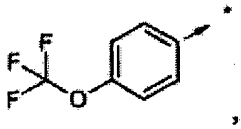
- R10 představuje  , R2 představuje  a

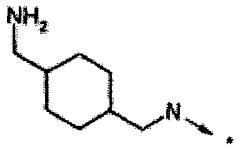
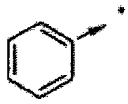
R3 představuje  ,

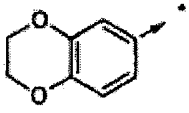
- R10 představuje  , R2 představuje  a

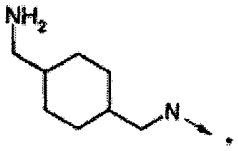
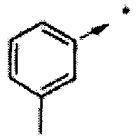
R3 představuje  ,

- R10 představuje  , R2 představuje  a

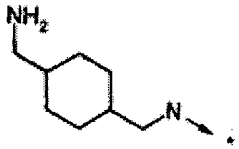
R3 představuje  ,

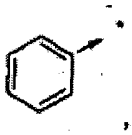
- R10 představuje  , R2 představuje  a

R3 představuje  ,

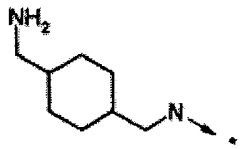
- R10 představuje  , R2 představuje  a

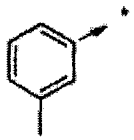
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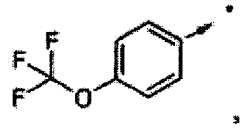
- R10 představuje  , R2 představuje  a

R3 představuje  ,

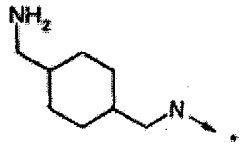
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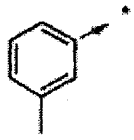


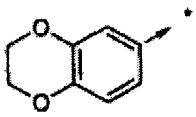
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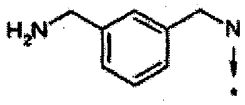
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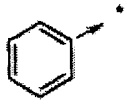


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R3 představuje

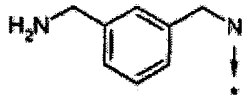


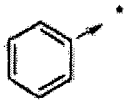


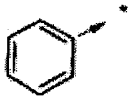
- R10 představuje , R2 představuje a



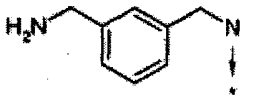
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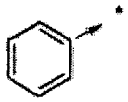


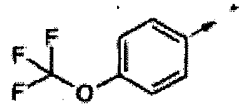
- R10 představuje , R2 představuje  a



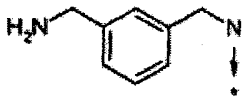
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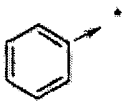


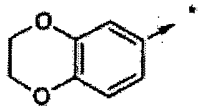
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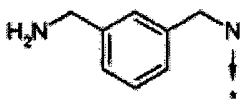


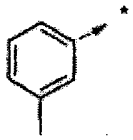
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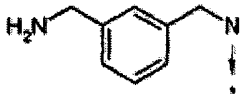
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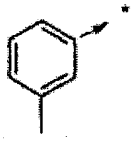


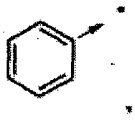
, R2 představuje  , R2 představuje a



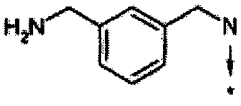
R3 představuje

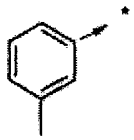


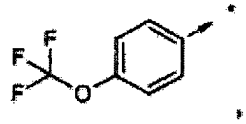
- R10 představuje  , R2 představuje a



R3 představuje

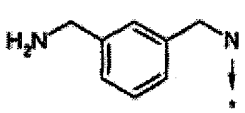


- R10 představuje  , R2 představuje a



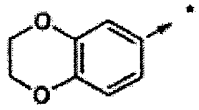
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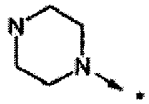
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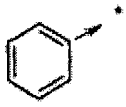




- R10 představuje , R2 představuje a R3 představuje .

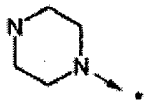


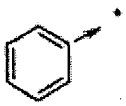




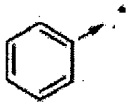
- R10 představuje , R2 představuje a R3 představuje .

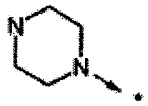
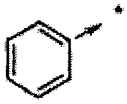
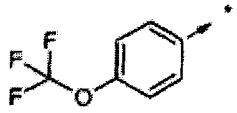


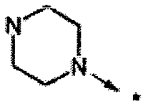
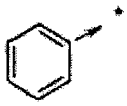
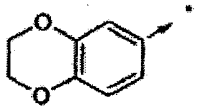


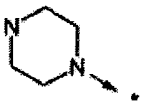
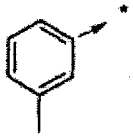


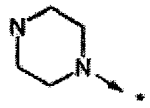
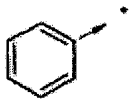
- R10 představuje , R2 představuje a R3 představuje .

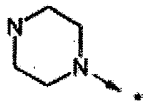
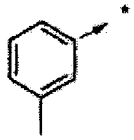
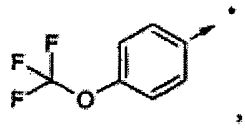


- R10 představuje  , R2 představuje  a R3 představuje  ,

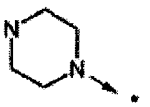
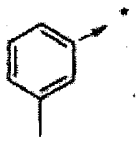
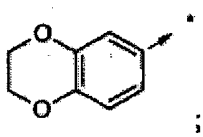
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  .

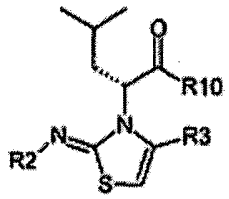
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

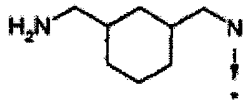
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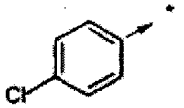
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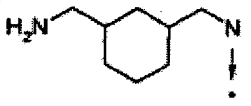
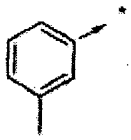


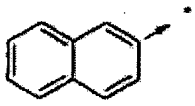
(iii)

ve kterém:

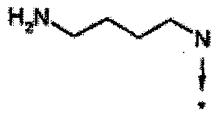
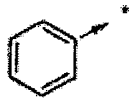
- R10 představuje  , R2 představuje  a

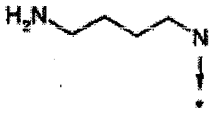
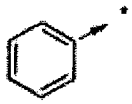
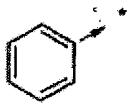
R3 představuje  ,

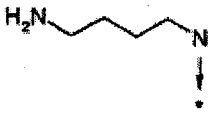
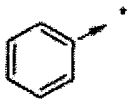
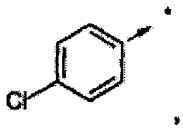
- R10 představuje  , R2 představuje  a

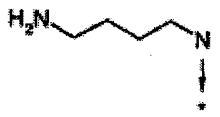
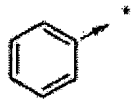
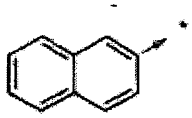
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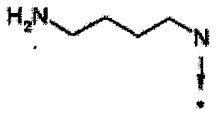
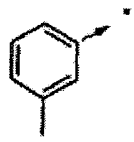
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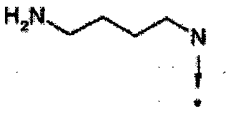
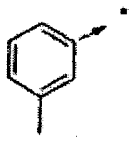
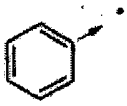
- R10 představuje  , R2 představuje  a R3 představuje  ,

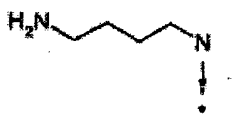
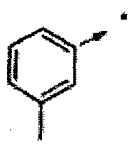
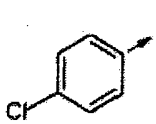
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  R2 představuje  a R3 představuje  ,

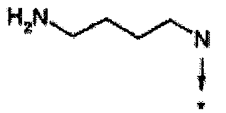
- R10 představuje  R2 představuje  a R3 představuje  ,

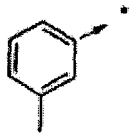
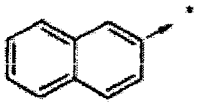
- R10 představuje  R2 představuje  a R3 představuje  ,

- R10 představuje  R2 představuje  a R3 představuje  ,

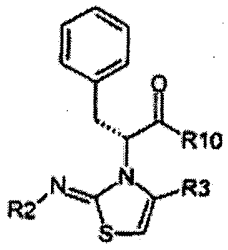
- R10 představuje R2 představuje a R3 představuje ,

nebo nakonec



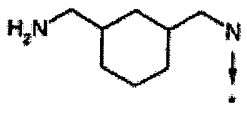
- R10 představuje  R2 představuje a R3 představuje  ,

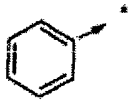
- nebo obecného vzorce

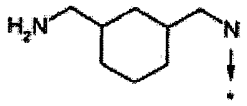


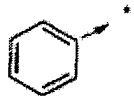
(iv)

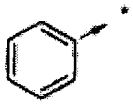
ve kterém



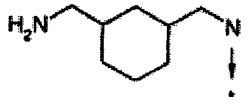
- R10 představuje  R2 představuje a R3 představuje  ,

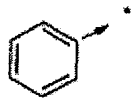


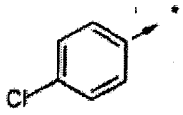
- R10 představuje , R2 představuje  a



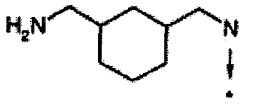
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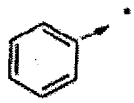


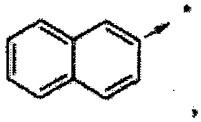
- R10 představuje , R2 představuje  a



R3 představuje ,

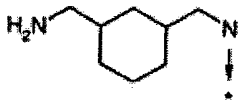


- R10 představuje , R2 představuje  a

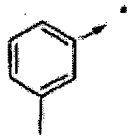


R3 představuje ,

23.01.04



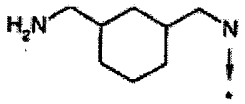
- R10 představuje



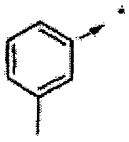
R2 představuje a



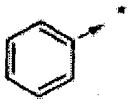
R3 představuje



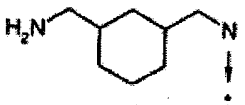
- R10 představuje



R2 představuje a



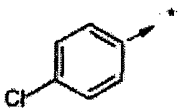
R3 představuje



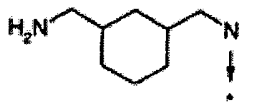
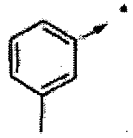
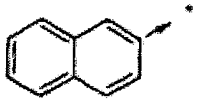
- R10 představuje

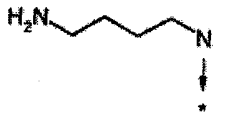
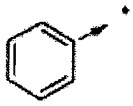


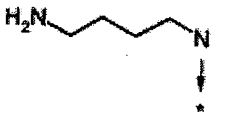
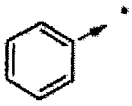
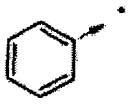
R2 představuje a



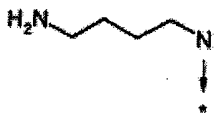
R3 představuje

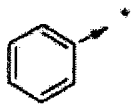
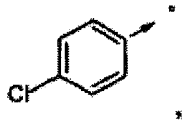
- R10 představuje  R2 představuje  a R3 představuje 

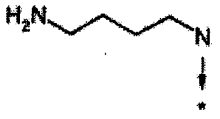
- R10 představuje  R2 představuje  a R3 představuje 

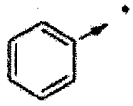
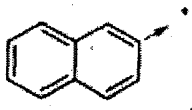
- R10 představuje  R2 představuje  a R3 představuje 

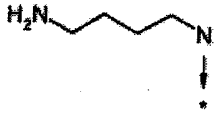
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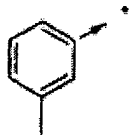


- R10 představuje , R2 představuje  a R3 představuje  ,

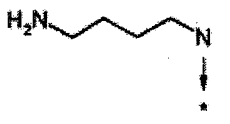


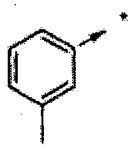
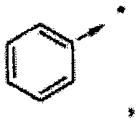
- R10 představuje , R2 představuje  a R3 představuje  ,

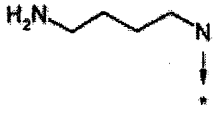


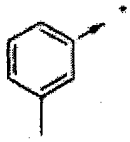
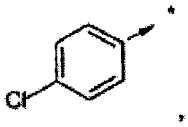
- R10 představuje , R2 představuje  a R3 představuje  .

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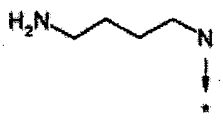


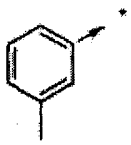
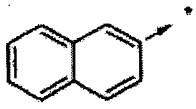
- R10 představuje  R2 představuje a R3 představuje  ,



- R10 představuje  R2 představuje a R3 představuje  ,

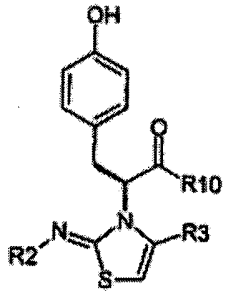
nebo nakonec



- R10 představuje  R2 představuje a R3 představuje  ;

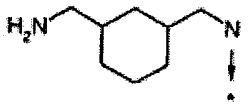
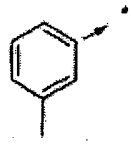
- nebo obecného vzorce

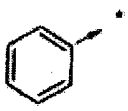
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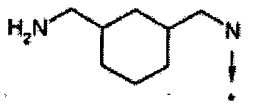
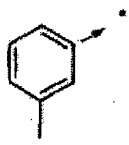


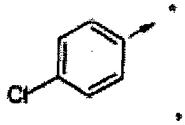
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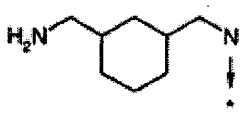
ve kterém

- R10 představuje  R2 představuje  a

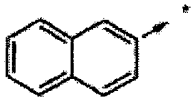
R3 představuje 

- R10 představuje  R2 představuje  a

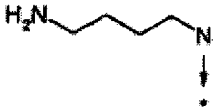
R3 představuje 

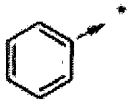


- R10 představuje  R2 představuje a



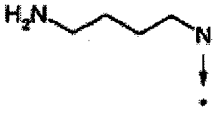
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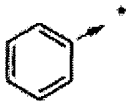


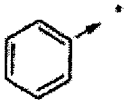
- R10 představuje , R2 představuje  a R3



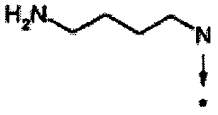
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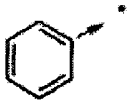


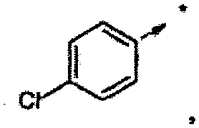
- R10 představuje , R2 představuje  a R3



představuje ,

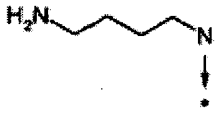


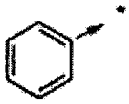
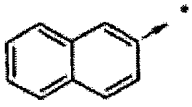
- R10 představuje , R2 představuje  a R3

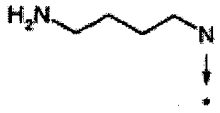


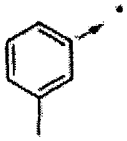
představuje ,

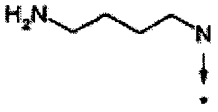
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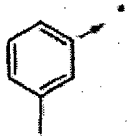
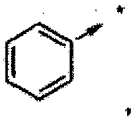


- R10 představuje  R2 představuje a R3 představuje  ,

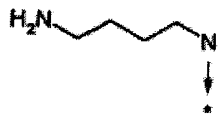
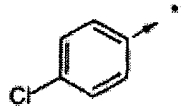


- R10 představuje  R2 představuje a R3 představuje  ,

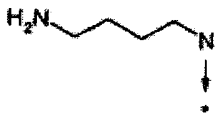
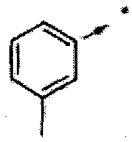
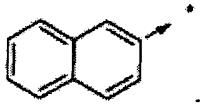


- R10 představuje  R2 představuje a R3 představuje  ,

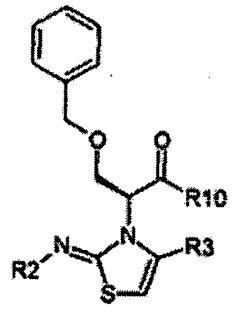
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- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

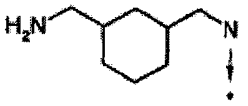
- R10 představuje  , R2 představuje  a R3 představuje  ;

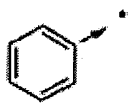
• nebo obecného vzorce



(vi)

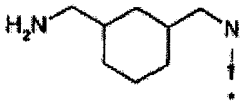
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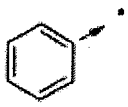


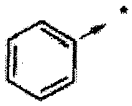
- R10 představuje , R2 představuje  a



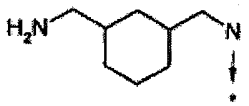
R3 představuje ,

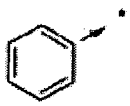


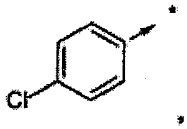
- R10 představuje , R2 představuje  a



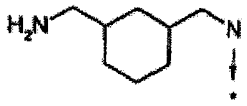
R3 představuje ,

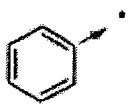


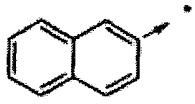
- R10 představuje , R2 představuje  a



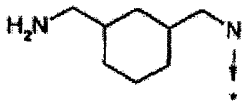
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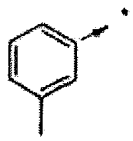


- R10 představuje , R2 představuje  a



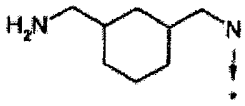
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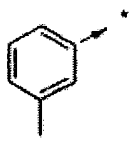


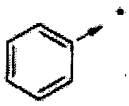
- R10 představuje , R2 představuje  a



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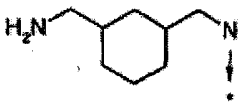
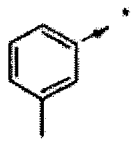
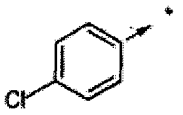


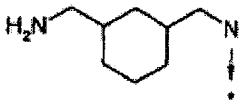
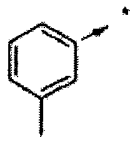
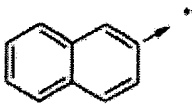
- R10 představuje , R2 představuje  a

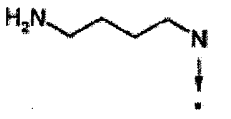
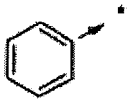


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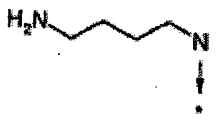
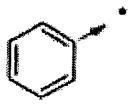
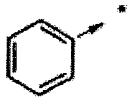
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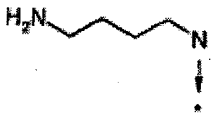
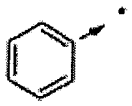
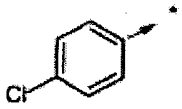
- R10 představuje  R2 představuje  a R3 představuje  ,

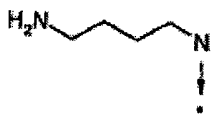
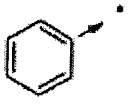
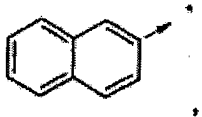
- R10 představuje  R2 představuje  a R3 představuje  ,

-R10 představuje  R2 představuje  a R3 představuje  ,

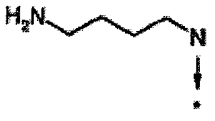
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- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  .

23.01.04



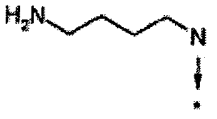
- R10 představuje



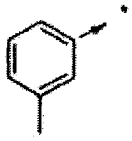
R2 představuje a R3 představuje



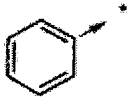
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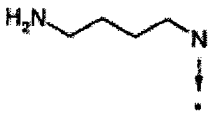
- R10 představuje



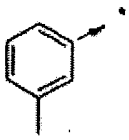
R2 představuje a R3 představuje



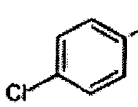
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- R10 představuje



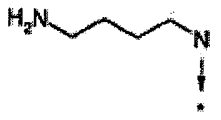
R2 představuje a R3 představuje

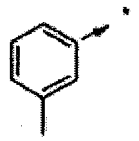
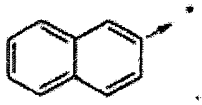


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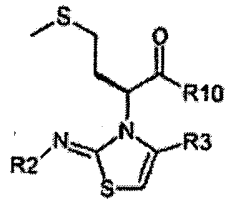
nebo nakonec

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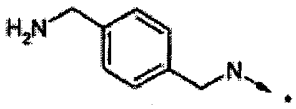
- R10 představuje  R2 představuje a R3 představuje  ;

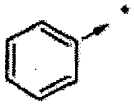
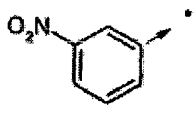
• nebo obecného vzorce



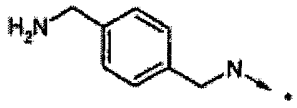
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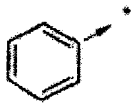
ve kterém

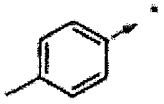


- R10 představuje  R2 představuje a R3 představuje  .

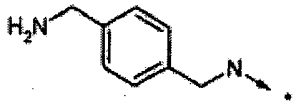
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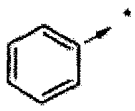


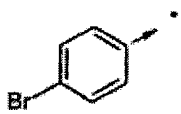
- R10 představuje , R2 představuje  a



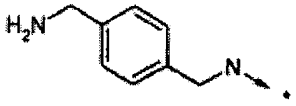
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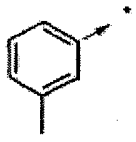


- R10 představuje , R2 představuje  a



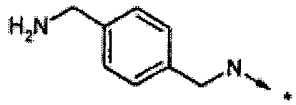
R3 představuje ,

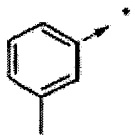


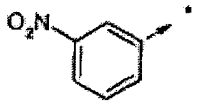
- R10 představuje , R2 představuje  a



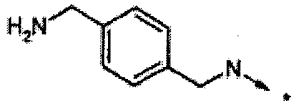
R3 představuje ,



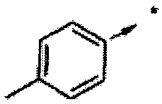
- R10 představuje , R2 představuje  a



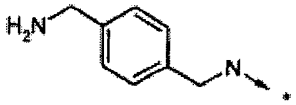
R3 představuje ,

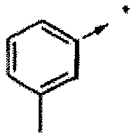


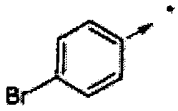
- R10 představuje , R2 představuje  a



R3 představuje ,



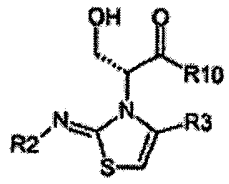
- R10 představuje , R2 představuje  a



R3 představuje ,

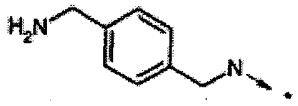
- nebo obecného vzorce

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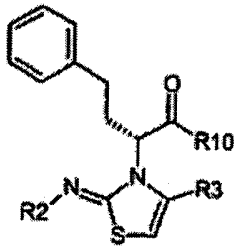
(viii)

ve kterém:

- R10 představuje 

, R2 představuje  a R3 představuje  ;

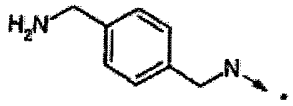
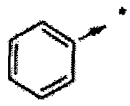
• nebo obecného vzorce

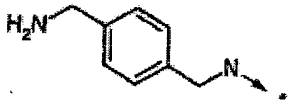
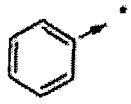
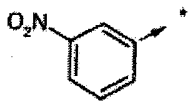


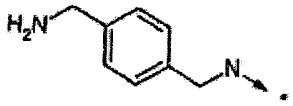
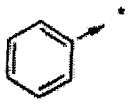
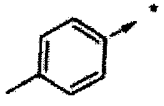
(ix)

ve kterém:

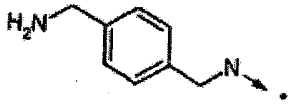
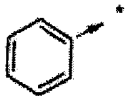
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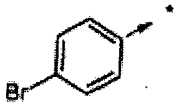
- R10 představuje  , R2 představuje  a R3 představuje  ,

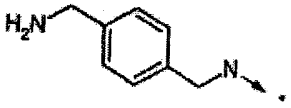
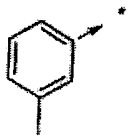
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

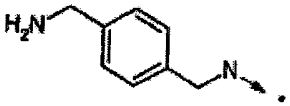
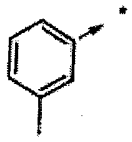
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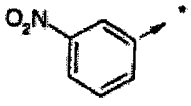
- R10 představuje  , R2 představuje  a

R3 představuje  ,

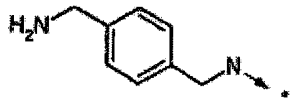
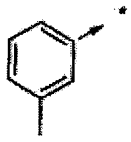
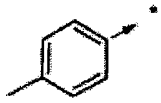
- R10 představuje  , R2 představuje  a

R3 představuje  ,

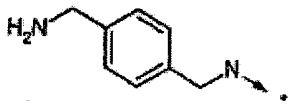
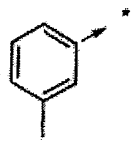
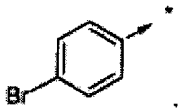
- R10 představuje  , R2 představuje  a

R3 představuje  ,

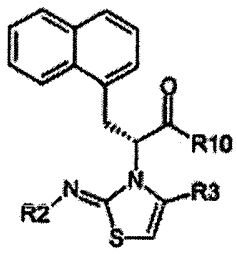
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- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

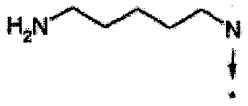
- R10 představuje  , R2 představuje  a R3 představuje  ;

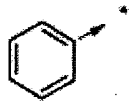
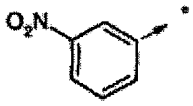
- nebo obecného vzorce

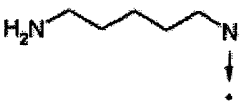


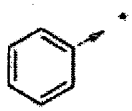
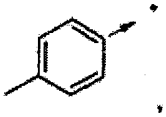
(x)

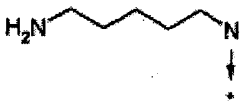
ve kterém

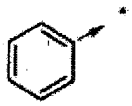
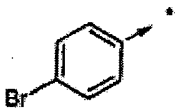


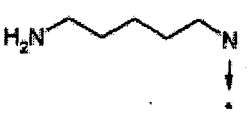
R10 představuje  R2 představuje a R3 představuje  ,

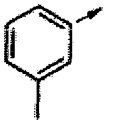
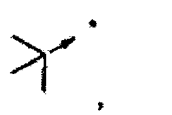


R10 představuje  R2 představuje a R3 představuje  ,



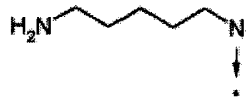
R10 představuje  R2 představuje a R3 představuje  ,

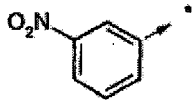


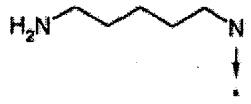
R10 představuje  R2 představuje a R3 představuje  ,

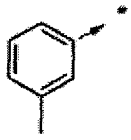
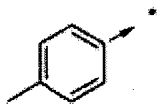
R10 představuje R2 představuje a R3 představuje ,

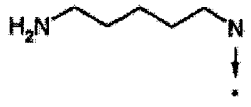
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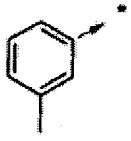
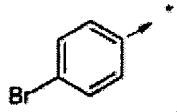


R10 představuje  R2 představuje a R3 představuje  ,

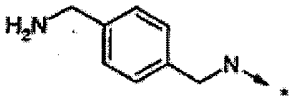
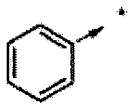


R10 představuje  R2 představuje a R3 představuje  ,

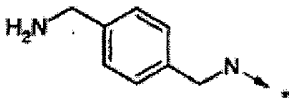
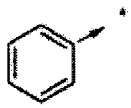


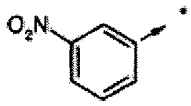
R10 představuje  R2 představuje a R3 představuje  ,

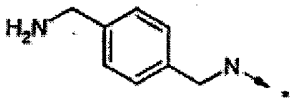
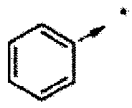
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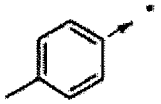
R10 představuje  , R2 představuje  a

R3 představuje  ,

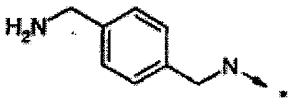
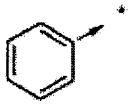
R10 představuje  , R2 představuje  a

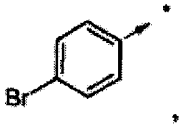
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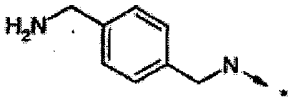
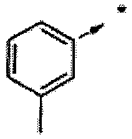
R10 představuje  , R2 představuje  a

R3 představuje  ,

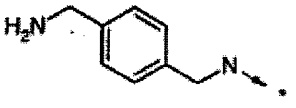
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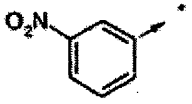
R10 představuje  R2 představuje  a

R3 představuje 

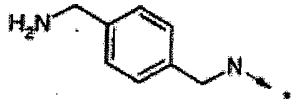
R10 představuje  R2 představuje  a

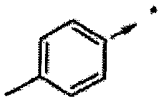
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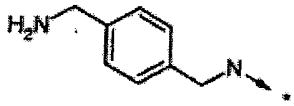
R10 představuje  R2 představuje  a

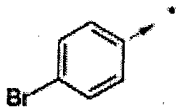
R3 představuje 

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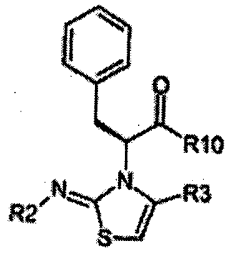
R10 představuje  , R2 představuje  a

R3 představuje  ,

R10 představuje  , R2 představuje  a

R3 představuje  ,

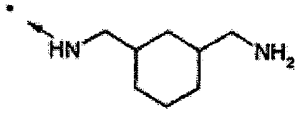
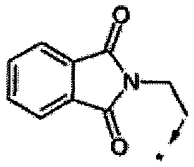
- nebo obecného vzorce

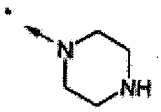
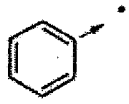
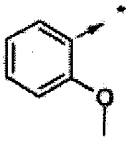


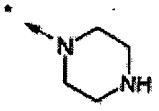
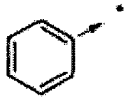
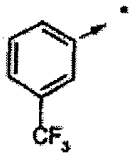
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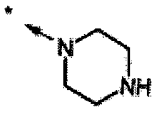
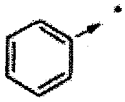
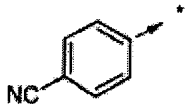
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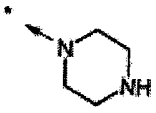
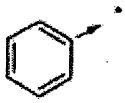
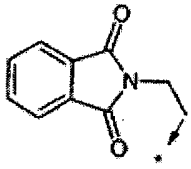
- R10 představuje  , R2 představuje  a R3 představuje  ,

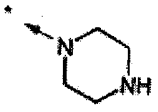
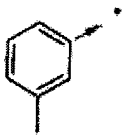
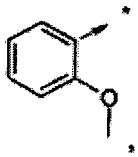
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

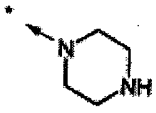
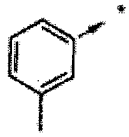
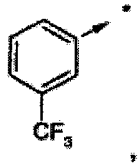
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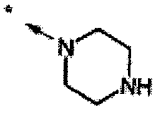
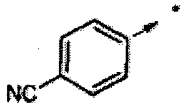
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

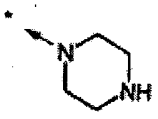
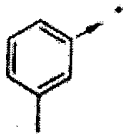
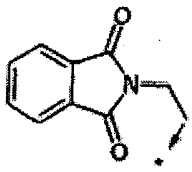
- R10 představuje  , R2 představuje  a R3 představuje  ,

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- R10 představuje  , R2 představuje  * ** a R3 představuje  ,

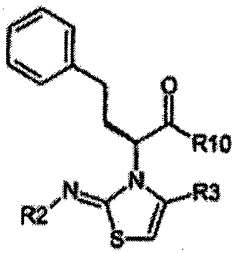
- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ;

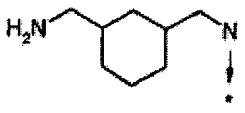
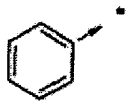
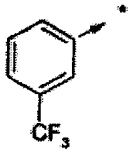
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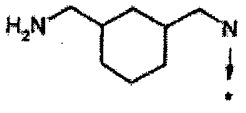
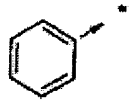
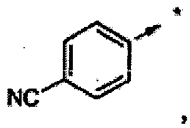
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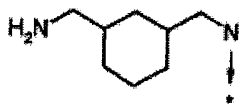


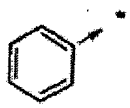
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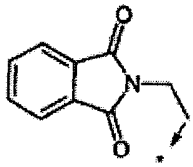
ve kterém:

- R10 představuje  , R2 představuje  a R3 představuje  ,

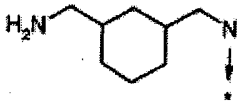
- R10 představuje  , R2 představuje  a R3 představuje  ,

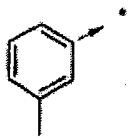


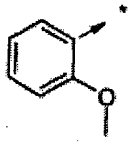
- R10 představuje , R2 představuje  a



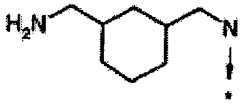
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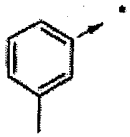


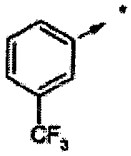
- R10 představuje , R2 představuje  a



R3 představuje ,

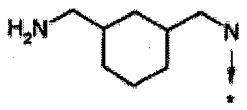
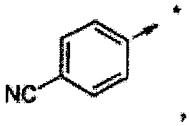


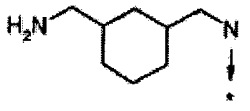
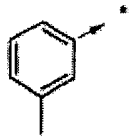
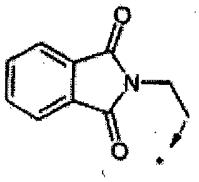
- R10 představuje , R2 představuje  a

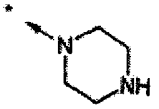
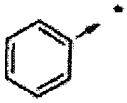
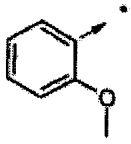


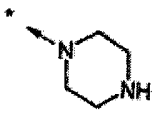
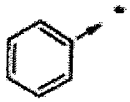
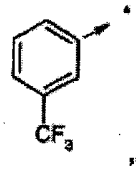
R3 představuje ,

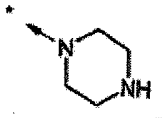
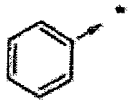
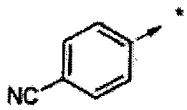
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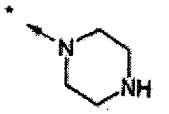
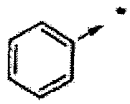
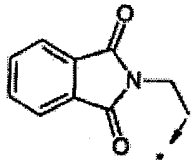
- R10 představuje  R2 představuje  a R3 představuje  ,

- R10 představuje  R2 představuje  a R3 představuje  ,

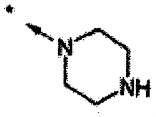
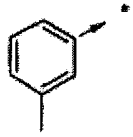
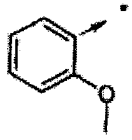
-R10 představuje  R2 představuje  a R3 představuje  ,

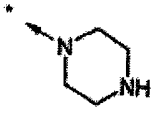
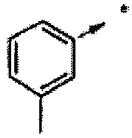
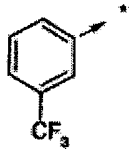
- R10 představuje  , R2 představuje  a R3 představuje  ,

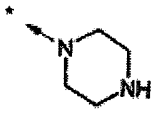
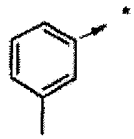
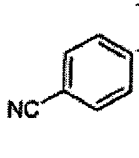
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

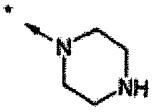
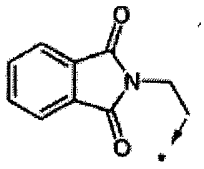
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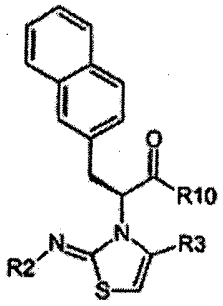
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

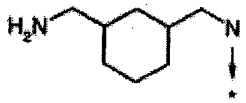
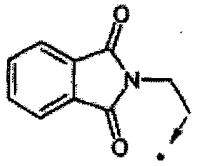
- R10 představuje  , R2 představuje  a R3 představuje  ;

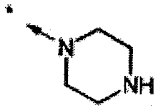
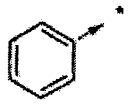
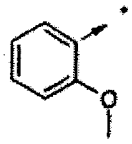
• nebo obecného vzorce

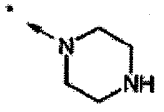
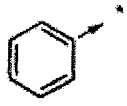
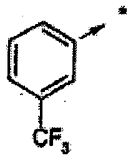


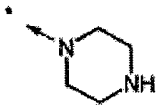
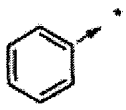
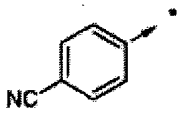
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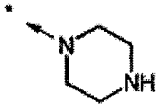
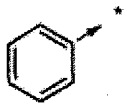
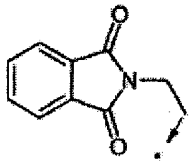
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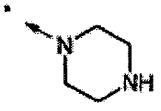
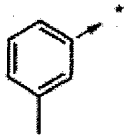
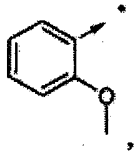
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

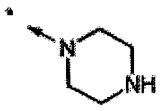
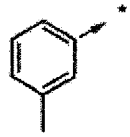
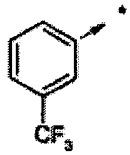
- R10 představuje  , R2 představuje  a R3 představuje  ,

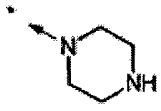
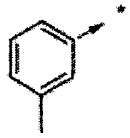
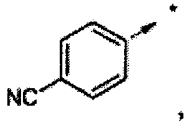
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

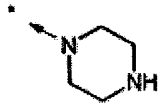
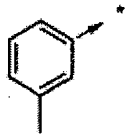
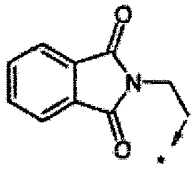
- R10 představuje  , R2 představuje  a R3 představuje  ,

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- R10 představuje  , R2 představuje  a R3 představuje  ,

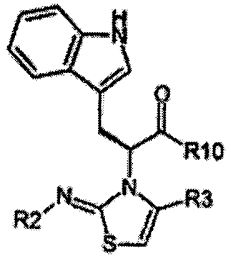
- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

- R10 představuje  , R2 představuje  a R3 představuje  ;

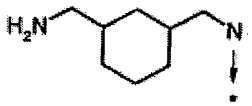
- nebo obecného vzorce

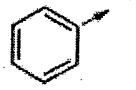
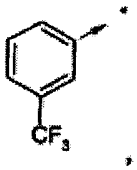
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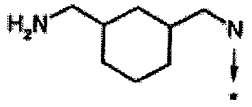
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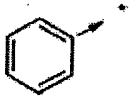
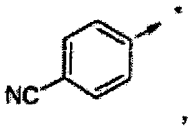
ve kterém:

- R10 představuje 

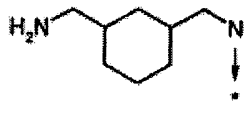
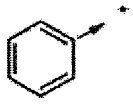
, R2 představuje  a R3 představuje 

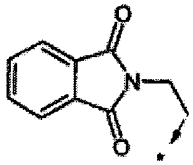
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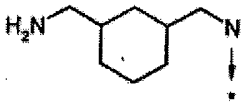
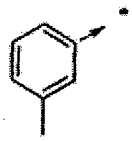
- R10 představuje 

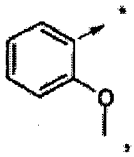
, R2 představuje  a R3 představuje 
,

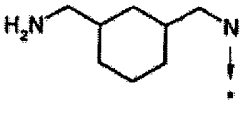
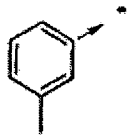
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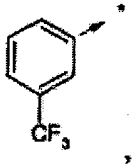
- R10 představuje  , R2 představuje  a

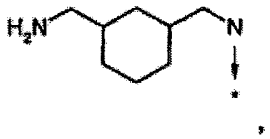
R3 představuje  ,

- R10 představuje  , R2 představuje  a

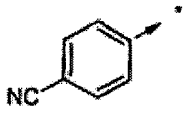
R3 představuje  ,

- R10 představuje  , R2 představuje  a

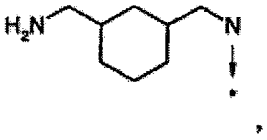
R3 představuje  ,



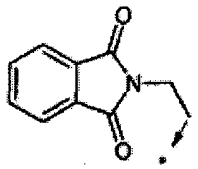
- R10 představuje  R2 představuje a



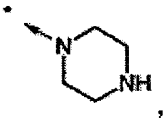
R3 představuje

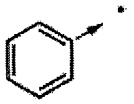


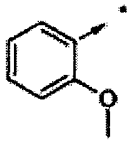
- R10 představuje  R2 představuje a



R3 představuje

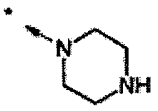
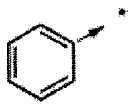
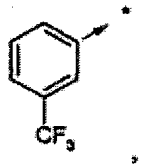


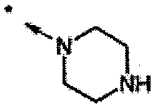
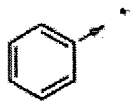
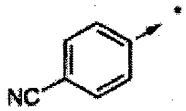
- R10 představuje R2 představuje  a R3

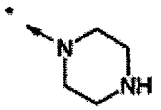
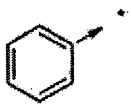
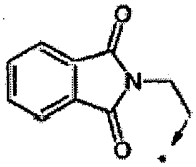


představuje

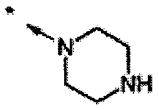
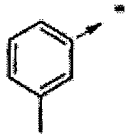
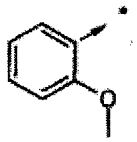
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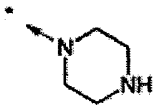
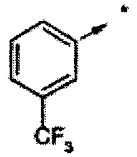
- R10 představuje  , R2 představuje  a R3 představuje  ,

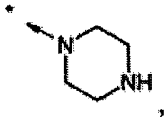
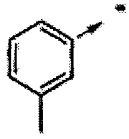
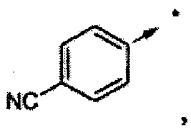
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

23.01.04

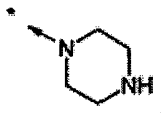
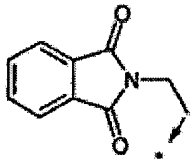
- R10 představuje  , R2 představuje  a R3 představuje  ,

- R10 představuje  , R2 představuje  a R3 představuje  ,

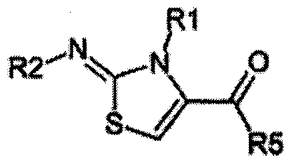
- R10 představuje  , R2 představuje  a R3 představuje  ,

nebo nakonec

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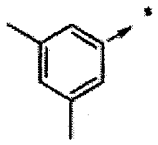
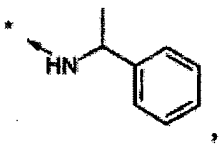
- R10 představuje  , R2 představuje  a R3 představuje  ;

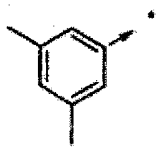
nebo konečně obecného vzorce

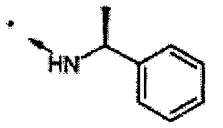


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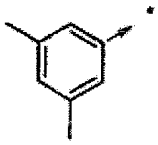
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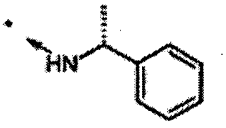
- R1 představuje  , R2 představuje  a R5 představuje  ,

- R1 představuje  R2 představuje  a

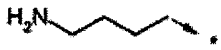
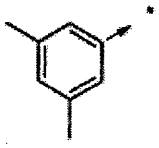


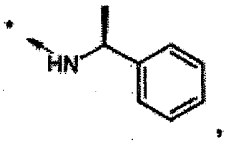
R5 představuje

- R1 představuje  R2 představuje  a



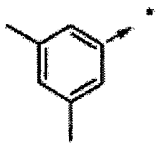
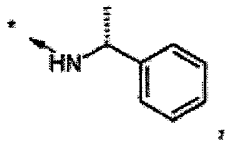
R5 představuje

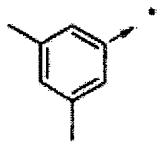
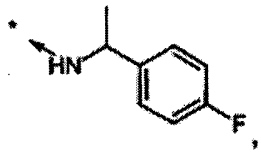
- R1 představuje  R2 představuje  a R5

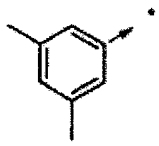
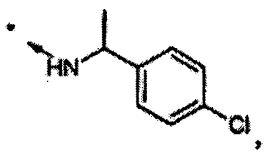


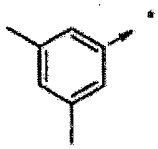
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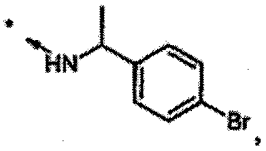
23.01.04

- R1 představuje  R2 představuje  a R5 představuje  ,

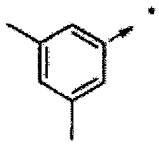
- R1 představuje  R2 představuje  a R5 představuje  ,

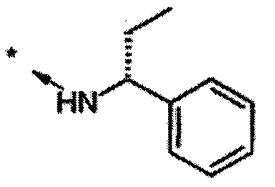
- R1 představuje  R2 představuje  a R5 představuje  ,

- R1 představuje  R2 představuje  a



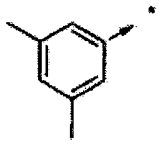
R5 představuje

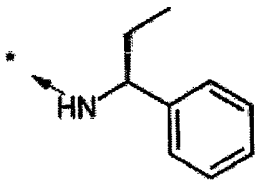
- R1 představuje  R2 představuje  a



R5 představuje

nebo nakonec

- R1 představuje  R2 představuje  a

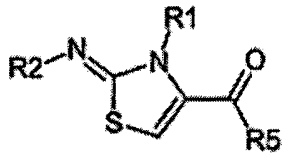


R5 představuje

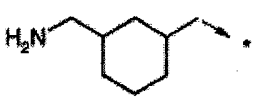
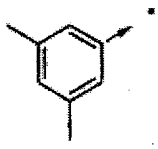
nebo sůl jedné z těchto sloučenin.

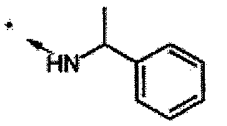
23.01.04

2. Sloučenina podle nároku 1 obecného vzorce

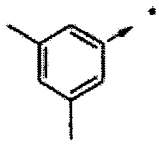


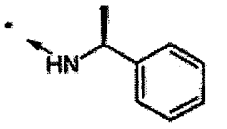
(xv)

-R1 představuje  , R2 představuje  a



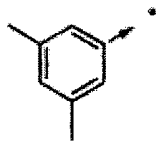
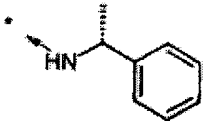
R5 představuje

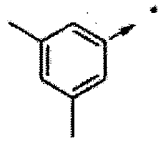
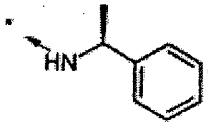
- R1 představuje  , R2 představuje  a

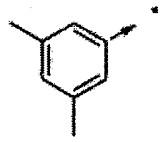
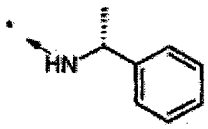


R5 představuje

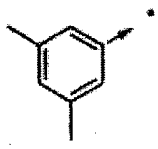
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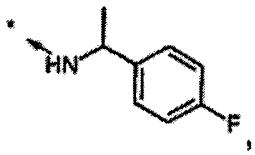
- R1 představuje  , R2 představuje  a R5 představuje  ,

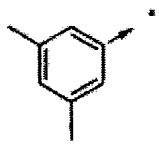
- R1 představuje  , R2 představuje  a R5 představuje  ,

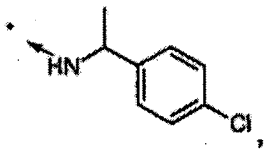
- R1 představuje  , R2 představuje  a R5 představuje  ,

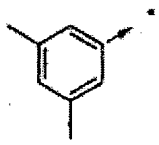
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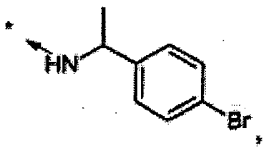
- R1 představuje  , R2 představuje  a

R5 představuje  ,

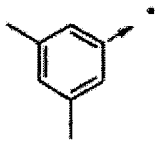
- R1 představuje  , R2 představuje  a

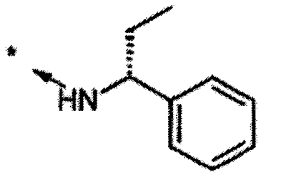
R5 představuje  ,

- R1 představuje  , R2 představuje  a

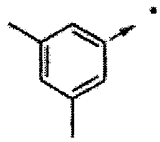
R5 představuje  .

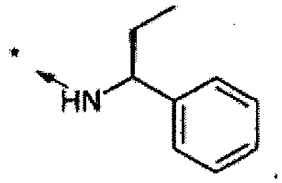
23.01.04

- R1 představuje  , R2 představuje  a

R5 představuje  ,

nebo nakonec

- R1 představuje  , R2 představuje  a

R5 představuje  ;

nebo sůl jedné z těchto sloučenin.

3. Sloučenina podle nároku 1 nebo 2 nebo farmaceuticky přijatelná sůl uvedené sloučeniny jako léčivo.

4. Farmaceutická kompozice, ***vyznačující se tím***, že obsahuje jako účinnou látku sloučeninu podle nároku 1 nebo 2 nebo farmaceuticky přijatelnou sůl uvedené sloučeniny.

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5. Použití sloučeniny podle nároku 1 nebo 2 nebo farmaceuticky přijatelné soli uvedené sloučeniny pro přípravu léčiva, určeného pro léčbu patologických stavů nebo onemocnění, na kterých se podílí jeden nebo více receptorů somatostatinu.

6. Použití podle nároku 5, ***vyznačující se tím***, že patologické stavy nebo onemocnění jsou zvoleny ze souboru, zahrnujícího následující patologické stavy nebo onemocnění: akromegalie, adenomy hypofýzy, Cushingova nemoc, gonadotrofinomy a prolaktinomy, sekundární katabolické účinky glukokortikoidů, na insulinu závislý diabetes, diabetické retinopatie, diabetické nefropatie, syndrom X, Dawnův fenomen, angiopatie, angioplastika, hyperthyroidie, gigantismus, endokrinní gastroenteropankreatické nádory včetně karcinoidního syndromu, VIPom, insulinom, nesidioblastóza, hyperinsulinemie, glukagonom, gastrinom a Zollinger-Ellisonův syndrom, GRFom, stejně tak jako akutní krvácení esofageálních varixů, vředy, gastroesofageální reflux, gastroduodenální reflux, pankreatitida, enterokutánní a pankreatické píštěle, ale také průjmy, refrakční průjmy při syndromu získané imunitní nedostatečnosti, chronický sekreční průjem, průjem související se syndromem střevního podráždění, průjmy indukované chemoterapií, poruchy související s peptidem uvolňujícím gastrin, sekundární patologie intestinálních štěpů, portální hypertenze, stejně tak jako krvácení varixů pacientů trpících cirhózou, gastro-intestinální krvácení, krvácení gastroduodenálních vředů, krvácení cévních štěpů, Crohnova nemoc, systémové sklerózy, dumping syndrom,

syndrom tenkého střeva, hypotenze, sklerodermie a medulární karcinom štítné žlázy, onemocnění související s buněčnou hyperproliferací jako jsou rakoviny a obzvláště rakovina prsu, rakovina prostaty, rakovina štítné žlázy, rakovina slinivky břišní a kolorektální rakovina, fibrózy a obzvláště fibróza ledvin, fibróza jater, fibróza plic, fibróza kůže, také fibróza centrálního nervového systému, stejně tak jako fibróza nosu a fibróza indukovaná chemoterapií, a v dalších terapeutických oblastech, cefalea (bolest hlavy) včetně cefaley související s nádory hypofýzy, bolest, zánětlivé poruchy jako je artritida, panické ataky, chemoterapie, jizvení poranění, renální nedostatečnost způsobená opožděním růstu, hyperlipidemie, obezita a opoždění růstu související s obezitou, opoždění růstu v děloze, dysplasie kostry, Noonanův syndrom, syndrom zástavy dechu ve spánku, Gravesova nemoc, polycystické onemocnění vaječníků, pankreatické polycysty a vodnatelnosti, leukémie, meningiom, kachexie při rakovině, inhibice H. pylori, psoriáza, chronické odmítání alloštěpů, stejně tak jako Alzheimerova nemoc a nakonec osteoporóza.

7. Použití podle nároku 6, ***vyznačující se tím,*** že patologické stavy nebo onemocnění jsou zvoleny ze souboru, zahrnujícího následující patologické stavy nebo onemocnění: akromegalie, adenomy hypofýzy nebo endokrinní gastroenteropankreatické nádory včetně karcinoidního syndromu a gastro-intestinální krvácení.

Zastupuje:
Dr. Otakar Švorčík