



(12) Translation of
European patent specification

(11) NO/EP 3256466 B1

NORWAY

(19) NO
(51) Int Cl.
C07D 405/14 (2006.01)
A61K 31/353 (2006.01)
A61K 31/4025 (2006.01)
A61P 25/00 (2006.01)
C07D 405/04 (2006.01)
C07D 413/14 (2006.01)
C07D 493/04 (2006.01)

Norwegian Industrial Property Office

(45) Translation Published 2022.05.02

(80) Date of The European Patent Office Publication of the Granted Patent 2022.04.06

(86) European Application Nr. 16708262.7

(86) European Filing Date 2016.02.11

(87) The European Application's Publication Date 2017.12.20

(30) Priority 2015.02.11, US, 201562115064 P

(84) Designated Contracting States: AL ; AT ; BE ; BG ; CH ; CY ; CZ ; DE ; DK ; EE ; ES ; FI ; FR ; GB ; GR ; HR ; HU ; IE ; IS ; IT ; LI ; LT ; LU ; LV ; MC ; MK ; MT ; NL ; NO ; PL ; PT ; RO ; RS ; SE ; SI ; SK ; SM ; TR

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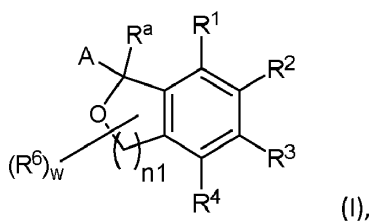
(54) Title **1-HETEROCYCLYL ISOCHROMANYL COMPOUNDS AND ANALOGS FOR TREATING CNS DISORDERS**

(56) References Cited: WO-A1-2014/106238
TOFFANO M ET AL: "Asymmetric routes towards polyfunctionalized pyrrolidines: application to the synthesis of alkaloid analogues", TETRAHEDRON ASYMMETRY, PERGAMON PRESS LTD, OXFORD, GB, vol. 14, no. 21, 31 October 2003 (2003-10-31), pages 3365-3370, XP004468552, ISSN: 0957-4166, DOI: 10.1016/S0957-4166(03)00592-5

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

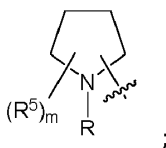
PATENTKRAV

1. Forbindelse med formel I:



eller et farmasøytisk akseptabelt salt derav, hvori:

5 A er



m er 0, 1 eller 2;

n1 er 2;

R er -H eller C₁-C₃alkyl;

10 R^a er -H eller C₁-C₃alkyl;

R¹, R², R³ og R⁴ er uavhengig -H, halogen, -OH, -NH₂, C₁-C₃alkyl, -OR⁷, -NHR⁷, -N(R⁷)R⁷, -CN, fenyl eller 5- eller 6-leddet heteroaryl, hvori:

hver forekomst av R⁷ uavhengig er usubstituert C₁-C₂alkyl eller C₁-C₂alkyl substituert med 1–3 halogen,

15 hver forekomst av C₁-C₃alkyl uavhengig er usubstituert eller substituert med 1–3 halogen,

og

fenylet eller heteroarylet er usubstituert eller substituert med 1 eller 2 grupper uavhengig valgt fra halogen, -OH, -OCH₃, -OCF₃, -NH₂, -NH(CH₃), -N(CH₃)₂, -CH₃, etyl, -CF₃ og -CN,

20

eventuelt hvori

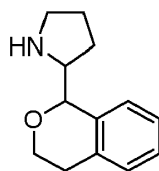
to tilstøtende tilfeller av R¹, R², R³ og R⁴ sammen danner -O-CH₂-O-, -O-CH(CH₃)-O-, -O-C(CH₃)₂-O-, -O-CH₂-CH₂-O- eller -O-C(CH₃)₂-C(CH₃)₂-O-;

hver forekomst av R⁵ uavhengig er halogen, -CH₃ eller etyl;

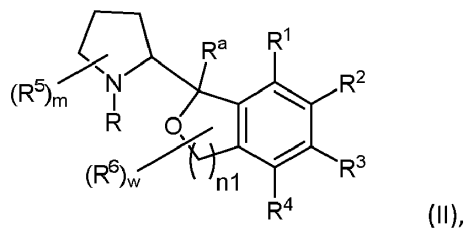
25 hver forekomst av R⁶ uavhengig er halogen, -CH₃, etyl eller -OH; og

w er 0, 1 eller 2;

forutsatt at forbindelsen ikke er:

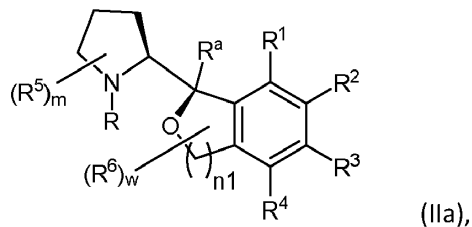


2. Forbindelsen ifølge krav 1 med formel (II):



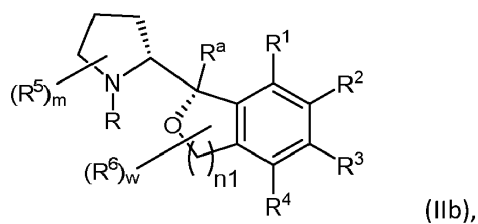
5 eller et farmasøytisk akseptabelt salt derav.

3. Forbindelsen ifølge krav 2 med formel (IIa):



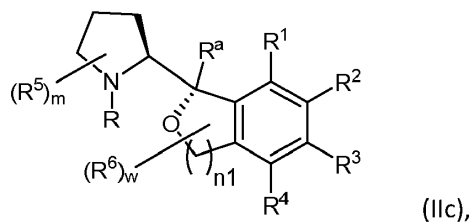
10 eller et farmasøytisk akseptabelt salt derav.

4. Forbindelsen ifølge krav 2 med formel (IIb):



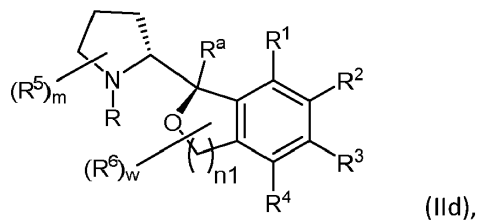
15 eller et farmasøytisk akseptabelt salt derav.

5. Forbindelsen ifølge krav 2 med formel (IIc):



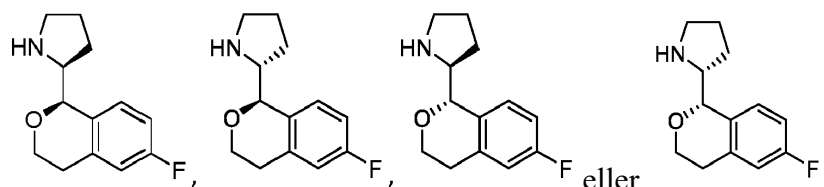
eller et farmasøytisk akseptabelt salt derav.

6. Forbindelsen ifølge krav 2 med formel (IId):

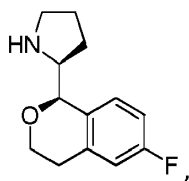


eller et farmasøytisk akseptabelt salt derav.

- 5 7. Forbindelsen ifølge et hvilket som helst av kravene 1–6, eller et farmasøytisk akseptabelt salt derav, hvori minst to av R^1 , R^2 , R^3 og R^4 er -H eller hvori minst tre av R^1 , R^2 , R^3 og R^4 er -H.
8. Forbindelsen ifølge et hvilket som helst av kravene 1–7, eller et farmasøytisk akseptabelt salt derav, hvori R^a er -H.
- 10 9. Forbindelsen ifølge et hvilket som helst av kravene 1–8, eller et farmasøytisk akseptabelt salt derav, hvori R er -H.
- 15 10. Forbindelsen ifølge et hvilket som helst av kravene 1–9, eller et farmasøytisk akseptabelt salt derav, hvori m er 0 og/eller hvori w er 0.
11. Forbindelsen ifølge et hvilket som helst av kravene 1–10, eller et farmasøytisk akseptabelt salt derav, hvori R^1 , R^2 , R^3 og R^4 er uavhengig -H, halogen, C_1 - C_3 alkyl, $-OR^7$ eller -CN.
- 20 12. Forbindelsen ifølge et hvilket som helst av kravene 1–11, eller et farmasøytisk akseptabelt salt derav, hvori R^1 , R^2 , R^3 og R^4 er uavhengig -H, -F, $-CH_3$, $-OCH_3$ eller -CN.
- 25 13. Forbindelsen ifølge krav 1, eller et farmasøytisk akseptabelt salt derav, valgt fra:



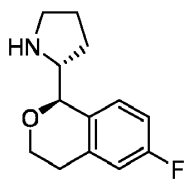
14. Forbindelsen ifølge et hvilket som helst av kravene 1–3, eller 7–13, hvori forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

5

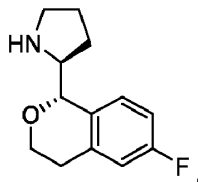
15. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 6 eller 7–13, hvori forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

10

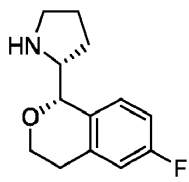
16. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 5 eller 7–13, hvori forbindelsen er:



eller et farmasøytisk akseptabelt salt derav.

15

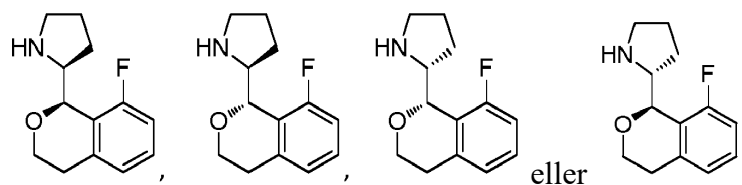
17. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 4 eller 7–13, hvori forbindelsen er:



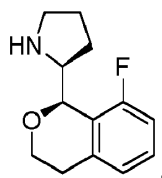
eller et farmasøytisk akseptabelt salt derav.

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18. Forbindelsen ifølge krav 1, eller et farmasøytisk akseptabelt salt derav, valgt fra:



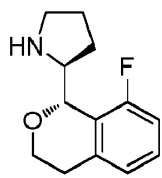
19. Forbindelsen ifølge et hvilket som helst av kravene 1–3, eller 7–12, hvori forbindelsen er:



5

eller et farmasøytisk akseptabelt salt derav.

20. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 5 eller 7–12, hvori forbindelsen er:



10

eller et farmasøytisk akseptabelt salt derav.

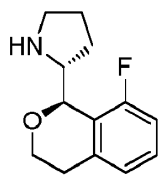
21. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 4 eller 7–12, hvori forbindelsen er:



15

eller et farmasøytisk akseptabelt salt derav.

22. Forbindelsen ifølge et hvilket som helst av kravene 1, 2, 6 eller 7–12, hvori forbindelsen er:

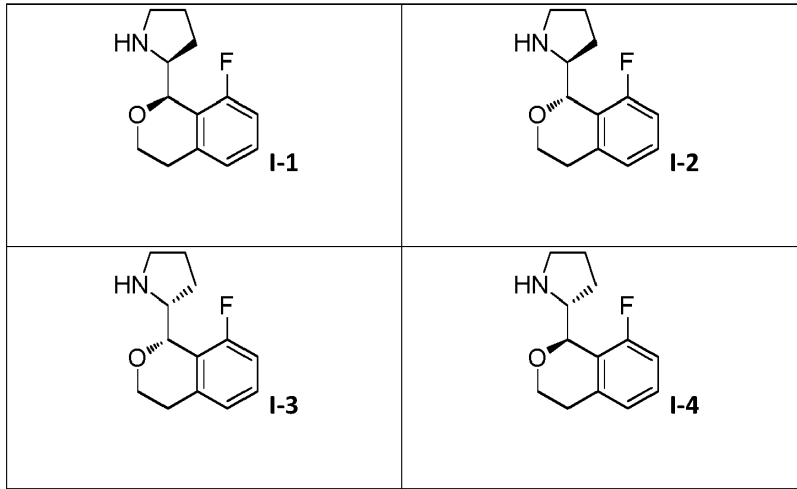


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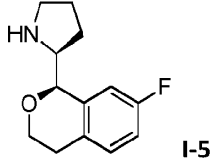
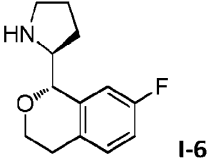
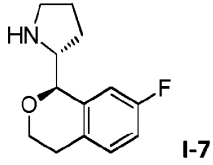
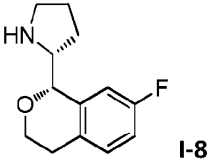
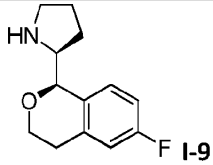
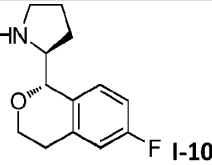
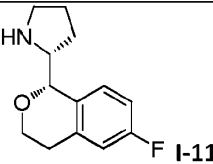
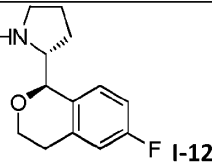
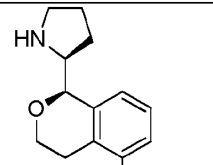
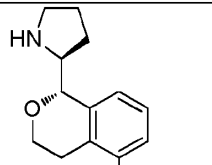
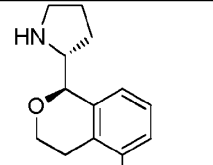
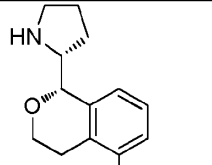
eller et farmasøytisk akseptabelt salt derav.

23. Forbindelsen ifølge et hvilket som helst av kravene 1–12, valgt fra de følgende forbindelsene, eller et farmasøytisk akseptabelt salt derav:

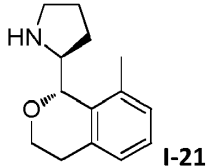
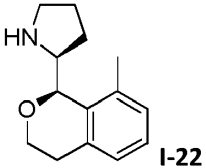
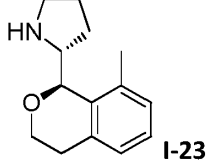
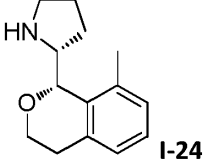
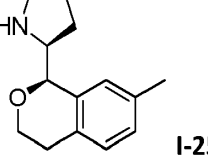
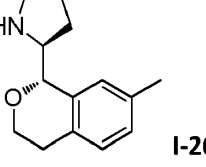
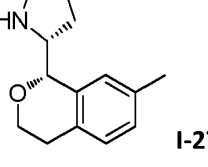
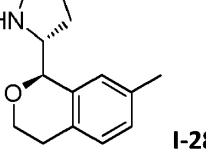
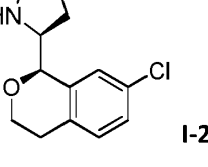
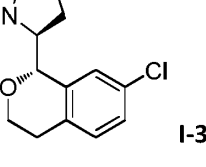
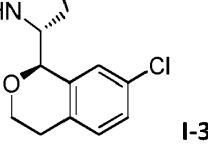
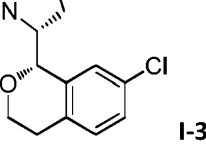
TABELL 1



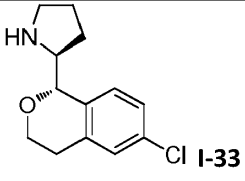
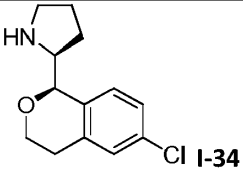
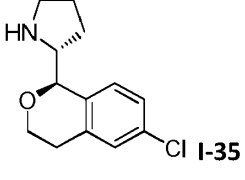
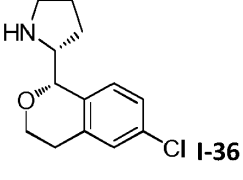
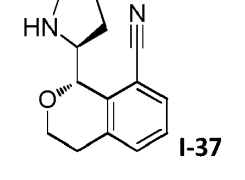
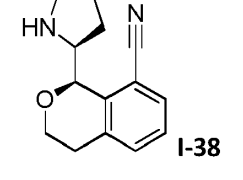
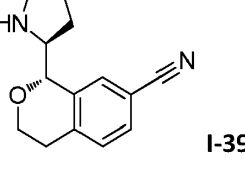
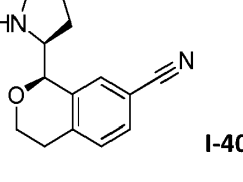
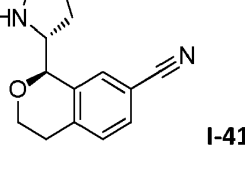
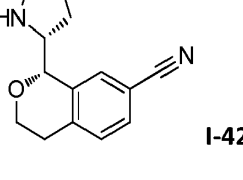
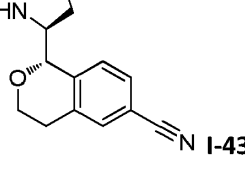
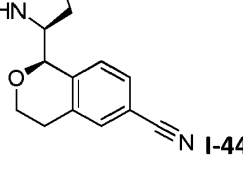
TABELL 1

 I-5	 I-6
 I-7	 I-8
 I-9	 I-10
 I-11	 I-12
 I-13	 I-14
 I-15	 I-16

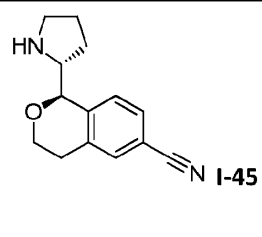
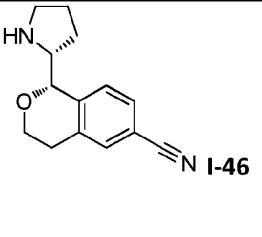
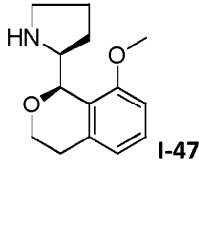
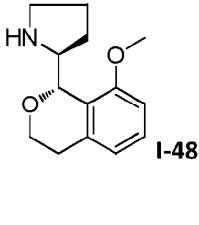
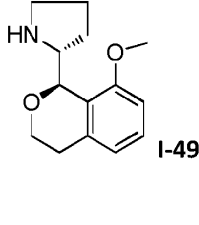
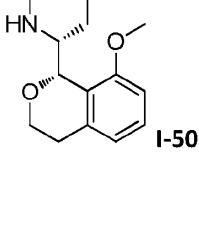
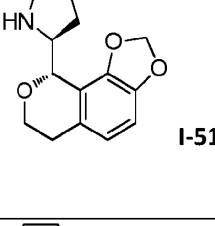
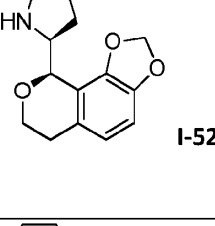
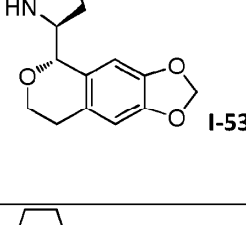
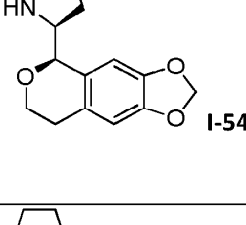
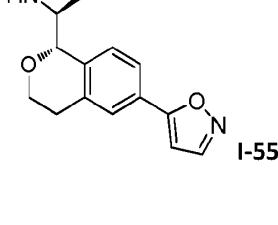
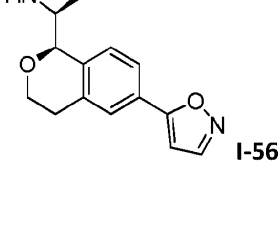
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 I-31	 I-32

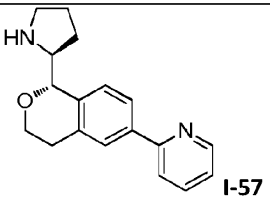
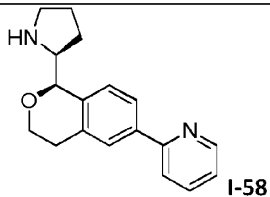
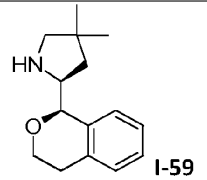
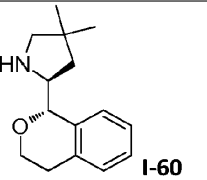
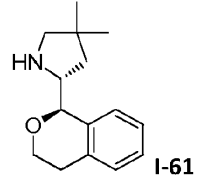
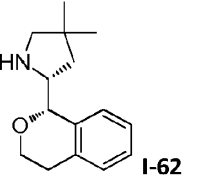
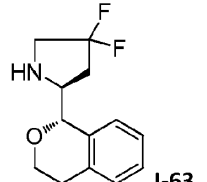
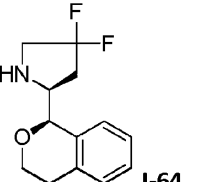
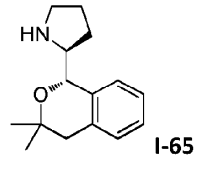
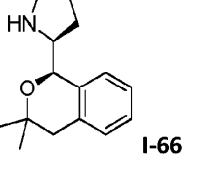
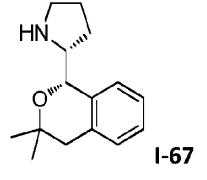
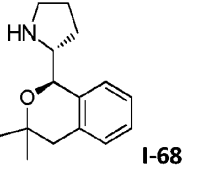
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 I-43	 I-44

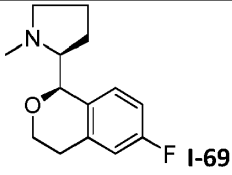
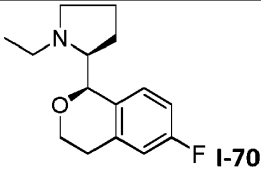
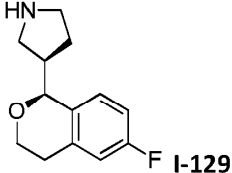
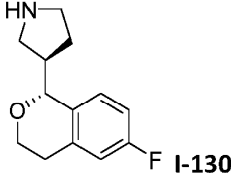
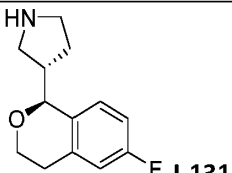
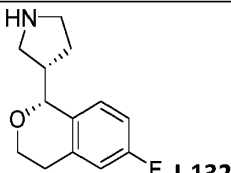
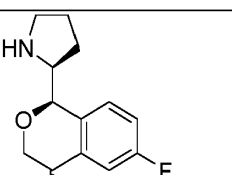
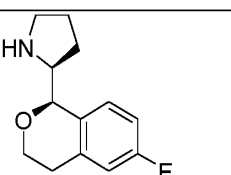
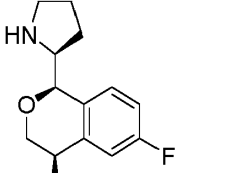
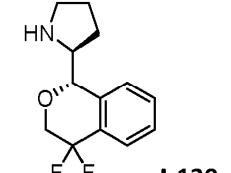
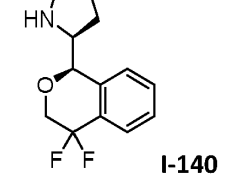
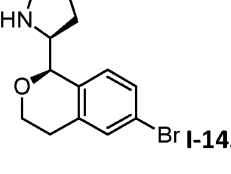
TABELL 1

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 I-47	 I-48
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 I-51	 I-52
 I-53	 I-54
 I-55	 I-56

TABELL 1

 I-57	 I-58
 I-59	 I-60
 I-61	 I-62
 I-63	 I-64
 I-65	 I-66
 I-67	 I-68

TABELL 1

 I-69	 I-70
 I-129	 I-130
 I-131	 I-132
 I-134	 I-137
 I-138	 I-139
 I-140	 I-145

24. Sammensetning omfattende en forbindelse ifølge et hvilket som helst av kravene 1–23, eller et farmasøytisk akseptabelt salt derav, og en farmasøytisk akseptabel bærer, adjuvans eller vehikkel.

- 25.** Forbindelsen ifølge et hvilket som helst av kravene 1–23, eller et farmasøytisk akseptabelt salt derav, for anvendelse ved behandling av en nevrologisk eller psykiatrisk lidelse.
- 5 **26.** Forbindelsen for anvendelse ifølge krav 25, hvori den nevrologiske eller psykiatriske lidelsen er alvorlig depresjon, schizofreni, bipolar lidelse, obsessiv-kompulsiv lidelse (OCD), panikkelidelse eller posttraumatisk stresslidelse (PTSD).
- 10 **27.** Forbindelsen for anvendelse ifølge krav 26, hvori den nevrologiske eller psykiatriske lidelsen er bipolar lidelse, mani, psykose eller schizofreni.
- 28.** Forbindelsen for anvendelse ifølge krav 27, hvori den nevrologiske eller psykiatriske lidelsen er bipolar lidelse.