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(81) **Designated States** (unless otherwise indicated, for every
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AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ,
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ZM, ZW.

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UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
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MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
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(54) **Title:** DIAZIRIDINES FOR TREATING NEURODEGENERATIVE DISORDERS

(57) **Abstract:** The present invention relates to compounds of formula I, use of these compounds to treat mental and neurological disorders, especially depressions and psychoses of different etiology. The compounds provided for the treatment of mental and neurological disorders are presented by a general formula I: wherein R, R', R'', Y are as defined in specification or pharmaceutically acceptable salts thereof, solvates thereof such as hydrates, and pharmaceutical compositions containing such compounds.



INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2013/050681

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D229/02 A61K9/00 A61K9/28 A61K9/48 A61K31/396
A61K31/4188 C07D471/10 C07D487/04 C07D487/10 C07D491/107
A61P25/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, BIOSIS, CHEM ABS Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 2012/042502 A1 (PHARMDISCOVERY LLP [GB]; PETUKHOVA VERA YUR EVNA [RU]; NOVAKOVSKIY VLA) 5 April 2012 (2012-04-05) cited in the application the whole document ----- -/--	1-14



Further documents are listed in the continuation of Box C.



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"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2013/050681

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KOSTOYANOVSKII R G, SHUSTOV G V, NABIEV O G, DENISENKO S N, SUKHANOVA S A, LAVRETSKAYA E F: "Synthesis and psychotropic activity of functionally substituted diaziridines and bisdiaziridines", PHARMACEUTICAL CHEMISTRY JOURNAL, vol. 20, no. 6, June 1986 (1986-06), pages 385-388, XP002700150, Springer New York LLC ISSN: 0091-150X cited in the application the whole document	1-14
X	----- PROKOPOV A A ET AL: "Experimental evaluation of bioavailability of tetramezine from tablets", PHARMACEUTICAL CHEMISTRY JOURNAL 200609 US, vol. 40, no. 9, September 2006 (2006-09), pages 463-464, XP002700151, ISSN: 0091-150X the whole document	1-14
X	----- KAMUF ET AL: "Stereodynamics of tetramezine", CHIRALITY, WILEY-LISS, NEW YORK, US, vol. 23, no. 2, 1 February 2011 (2011-02-01), pages 113-117, XP009154973, ISSN: 0899-0042 [retrieved on 2010-09-15] the whole document	1-14
X	----- CHARLES J. PAGET ET AL: JOURNAL OF MEDICINAL CHEMISTRY, vol. 7, no. 5, 1 September 1964 (1964-09-01), pages 626-628, XP055069240, ISSN: 0022-2623, DOI: 10.1021/jm00335a012 cited in the application the whole document	1-14
X	----- R.G. KOSTYANOVSKY ET AL: "Asymmetrical nonbridgehead nitrogen-XXIII", TETRAHEDRON, vol. 38, no. 7, 1 January 1982 (1982-01-01), pages 949-960, XP055069413, ISSN: 0040-4020, DOI: 10.1016/0040-4020(82)85074-6 compounds 2i, 5a-e and other salts described in the document ----- -/--	2

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2013/050681

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	G.V. SHUSTOV ET AL: "Asymmetric nitrogen-35", TETRAHEDRON, vol. 40, no. 11, 1 January 1984 (1984-01-01), pages 2151-2159, XP055069414, ISSN: 0040-4020, DOI: 10.1016/S0040-4020(01)88458-1 compound 4	2
X	----- ERNST SCHMITZ ET AL: "Diaziridine, II. Synthese von Diaziridinen und ihre Überführung in Alkylhydrazine", CHEMISCHE BERICHTE, vol. 95, no. 3, 1 March 1962 (1962-03-01), pages 680-687, XP055069409, ISSN: 0009-2940, DOI: 10.1002/cber.19620950317 page 686; compounds Ia-Oxalat	2
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
W0 2012042502	A1	05-04-2012	NONE
