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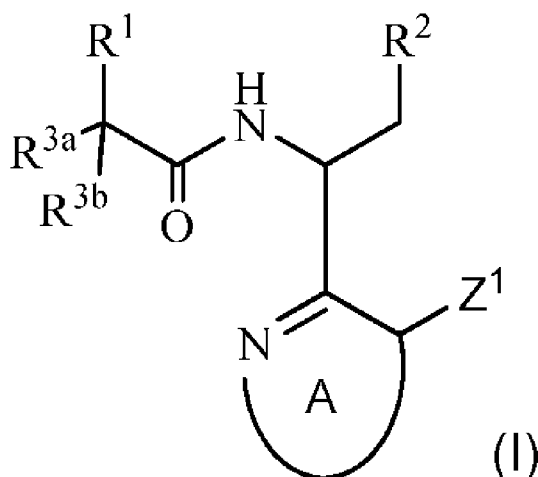
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AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
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KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,

[Continued on next page]

(54) Title: AMIDE COMPOUNDS FOR THE TREATMENT OF HIV



(57) Abstract: Compounds of formula (I) or salts thereof are disclosed. Also disclosed are pharmaceutical compositions comprising a compound of formula I, processes for preparing compounds of formula I, intermediates useful for preparing compounds of formula I and therapeutic methods for treating a Retroviridae viral infection including an infection caused by the HIV virus.

SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D401/14 C07D403/14 C07D471/04 A61K31/496 A61P31/14
ADD.
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 A61P
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, WPI Data, BEILSTEIN Data, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2013/006738 A1 (GILEAD SCIENCES INC [US]; BONDY STEVEN S [US]; CANNIZZARO CARINA E [US]) 10 January 2013 (2013-01-10) cited in the application claims; compounds 262G, 301B -----	1-54
A	WO 2013/006792 A1 (PHARMARESOURCE SHANGHAI CO LTD [CN]; CHEN PING [US]; ZHOU DING [CN];) 10 January 2013 (2013-01-10) cited in the application claims; examples ----- -/--	1-54

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 25 September 2014	Date of mailing of the international search report 15/10/2014
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Stroeter, Thomas

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/019663

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JEONG J U ET AL: "Synthesis of tetrasubstituted pyrazines and pyrazine N-oxides", TETRAHEDRON LETTERS, PERGAMON, GB, vol. 51, no. 6, 10 February 2010 (2010-02-10), pages 974-976, XP026827002, ISSN: 0040-4039 [retrieved on 2009-12-16] compounds 97-99 -----	1-54
A	RYOICHI TANAKA ET AL: "One-Pot Synthesis of Metalated Pyridines from Two Acetylenes, a Nitrile, and a Titanium(II) Alkoxide", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 127, no. 21, 1 June 2005 (2005-06-01) , pages 7774-7780, XP055142515, ISSN: 0002-7863, DOI: 10.1021/ja050261e compounds 7a, 7b, 16 -----	1-54

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2014/019663

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013006738	A1 10-01-2013	AU 2012278976 A1	23-01-2014
		CA 2840095 A1	10-01-2013
		EP 2729448 A1	14-05-2014
		US 2014142085 A1	22-05-2014
		WO 2013006738 A1	10-01-2013

WO 2013006792	A1 10-01-2013	CN 102863512 A	09-01-2013
		WO 2013006792 A1	10-01-2013

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 38-43(completely); 1-37, 44-54(partially)

Compounds of formulas I, III and IIIId (and subject-matter referring to these compounds) wherein
Z2 = unsaturated aliphatic group, i.e. Z2 = alkenyl, alkynyl

2. claims: 1-37, 44-54(all partially)

Compounds of formulas I, III and IIIId (and subject-matter referring to these compounds)
wherein Z2 = cyclic group, i.e. Z2 = aryl, heteroaryl,
heterocycle

3. claims: 1-37, 44-54(all partially)

Compounds of formulas I, III and IIIId (and subject-matter referring to these compounds)
wherein Z2 = carbonyl group, i.e. Z2 = -C(=O)R, -C(=O)NRR

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/019663

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.