

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 June 2006 (08.06.2006)

PCT

(10) International Publication Number
WO 2006/060712 A3

(51) International Patent Classification:
C07D 413/12 (2006.01) *A61P 31/18* (2006.01)
A61K 31/513 (2006.01)

(21) International Application Number:
PCT/US2005/043728

(22) International Filing Date:
2 December 2005 (02.12.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/633,132 3 December 2004 (03.12.2004) US

(71) Applicants (for all designated States except US):
MERCK & CO. INC. [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **ISTITUTO DI RICERCHE DI BIOLOGIA MOLECOLARE P. ANGELETTI S.P.A.** [IT/IT]; Via Pontina Km, 30,600, I-00040 Pomezia (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BELYK, Kevin, M.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **MORRISON, Henry, G.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **JONES, Philip** [GB/IT]; Via Pontina Km, 30,600, I-00040 Pomezia (IT). **SUMMA, Vincenzo** [IT/IT]; Via Pontina Km, 30,600, I-00040 Pomezia (IT).

(74) Common Representative: **MERCK & CO. INC.**; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

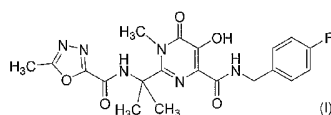
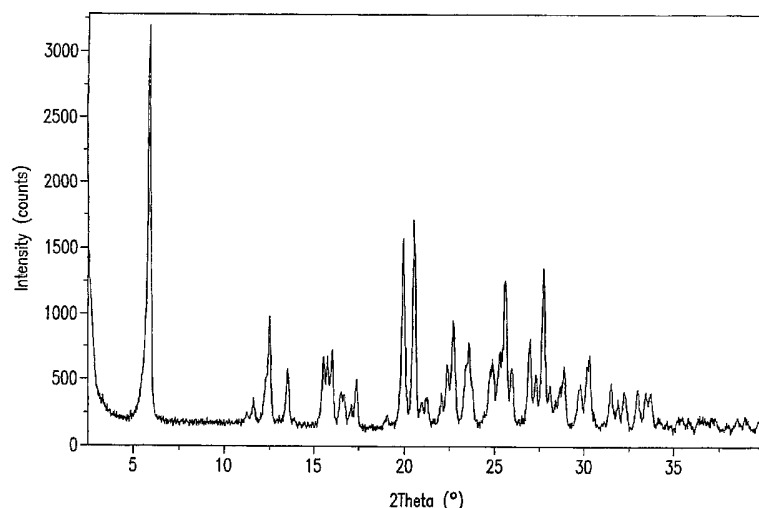
Published:

— with international search report

(88) Date of publication of the international search report:
21 September 2006

[Continued on next page]

(54) Title: POTASSIUM SALT OF AN HIV INTEGRASE INHIBITOR



(57) Abstract: Potassium salts of Compound A disclosed, wherein Compound A is of formula (I). Compound A is an HIV integrase inhibitor useful for treating or prophylaxis of HIV infection, for delaying the onset of AIDS, and for treating or prophylaxis of AIDS.



(15) Information about Correction:

Previous Correction:

see PCT Gazette No. 30/2006 of 27 July 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/043728

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D413/12 A61K31/513 A61P31/18

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 practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI 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 03/035077 A (ISTITUTO DI RICERCHE DI BIOLOGIA MOLECOLARE P. ANGELETTI SPA; CRESCENZ) 1 May 2003 (2003-05-01) cited in the application page 2, line 10 - line 17 page 11, line 25 - line 27 page 49, line 20 - line 21 page 55, line 10 page 161; compound 24 claims 1-33 -----	1-10

☐ 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
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *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
- *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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

11 May 2006

Date of mailing of the international search report

28/06/2006

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Megido, B

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2005/043728

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 03035077	A	01-05-2003	AT 318140 T 15-03-2006
		BR 0213522 A	08-09-2004
		CA 2463976 A1	01-05-2003
		EP 1441735 A1	04-08-2004
		HR 20040373 A2	31-08-2005
		HU 0401740 A2	28-12-2004
		JP 2005511543 T	28-04-2005
		MX PA04003932 A	18-06-2004
		NZ 533057 A	25-11-2005
