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- (81) **Designated States (unless otherwise indicated, for every
kind of national protection available):** AE, AG, AL, AM,

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,
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ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
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RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ,
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ZM, ZW.

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GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
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EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
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TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
— *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))*

- (88) **Date of publication of the international search report:**
5 December 2013



WO 2013/134534 A3

(54) **Title:** SOLID STATE FORMS OF CABAZITAXEL AND PROCESSES FOR PREPARATION THEREOF

(57) **Abstract:** The invention relates to solid state forms of Cabazitaxel and processes for preparing the solid state forms. The invention further relates to pharmaceutical compositions and formulations comprising one or more of the solid state forms.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/029664

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D305/14 A61K31/337 A61P35/00
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, 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 2009/115655 A2 (AVENTIS PHARMA SA [FR]; BILLOT PASCAL [FR]; DUFRAIGNE MARIELLE [FR]; E) 24 September 2009 (2009-09-24) cited in the application the whole document	1,3-7, 12,13, 18-35
X	US 7 241 907 B2 (DIDIER ERIC [FR] ET AL) 10 July 2007 (2007-07-10) cited in the application the whole document	1,4-7, 18-23, 28-35
X	WO 2005/028462 A1 (AVENTIS PHARMA SA [FR]) 31 March 2005 (2005-03-31) cited in the application the whole document	1,4-7, 28-35
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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</p> <p>"&" document member of the same patent family</p>
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Date of the actual completion of the international search 11 September 2013	Date of mailing of the international search report 01/10/2013
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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 Seitner, Irmgard
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/029664

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.:

1, 4-7, 12, 13, 18-27(completely); 3, 28-35(partially)

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.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2013/029664

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 2012/142117 A1 (PLUS CHEMICALS SA [CH]; TEVA PHARMA [US]; SIMO ONDREJ [SK]; VRASPIR PA) 18 October 2012 (2012-10-18) cited in the application claims 1-28	1,3-7, 12,13, 24-35
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/029664

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2013/088335 A1 (AVENTIS PHARMA SA [FR]) 20 June 2013 (2013-06-20) claims 1-9 -----	1,4-7, 18-35
E	WO 2013/080217 A2 (FRESENIUS KABI ONCOLOGY LTD [IN]) 6 June 2013 (2013-06-06) claims 1-80 -----	24-35
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Information on patent family members

International application No

PCT/US2013/029664

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1, 4-7, 18-23(completely); 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel alkyl acetate solvate according to claim 1

2. claims: 8, 9(completely); 2, 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel methyl ethyl ketone ("MEK") solvate designated as Form IX according to claim 2

3. claims: 10, 11(completely); 2, 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel methyl isobutyl ketone solvate designated as Form X according to claim 2

4. claims: 12, 13(completely); 3, 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel 2-butanol solvate designated as Form XI according to claim 3

5. claims: 14, 15(completely); 3, 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel isobutanol solvate designated as Form XII according to claim 3

6. claims: 16, 17(completely); 3, 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel amyl alcohol solvate designated as Form XIII according to claim 3

7. claims: 24-27(completely); 28-35(partially)

Subject-matter relating to the crystalline Cabazitaxel designated as Form XVI according to claim 24
