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(54) Title: CRYSTALLINE SOLID FORMS

(57) Abstract: The present invention relates to the new crystalline solid form VI and VIII of tigecycline and processes for the pro-
duction of form VI and VIII. It further relates to a new method for preparing Form I and Form III in high polymorphic purity.

International application No
PCT/EP2008/057848

A. CLASSIFICATION OF SUBJECT MATTER INV. C07C237/26 A61K31/65 A61P31/00		
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) C07C		
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, WPI Data, BEILSTEIN Data, 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,P	WO 2008/066935 A (TEVA PHARMA [IL]; TEVA PHARMA [US]; TSIPERMAN EVGENY [IL]; GORHOVSKY-) 5 June 2008 (2008-06-05) page 4, line 19 - line 22 page 34, line 29 - page 35, line 5 page 35; table 1 figure 7 page 29, line 13 - line 27	1-9
A	WO 2006/128150 A (WYETH CORP [US]; KRISHNAN LALITHA [US]; DESHMUKH SUBODH S [US]; HADFIE) 30 November 2006 (2006-11-30) cited in the application the whole document	1-9

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<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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. "&" document member of the same patent family
Date of the actual completion of the international search <p style="text-align: center;">26 January 2010</p>		Date of mailing of the international search report <p style="text-align: center;">08/06/2010</p>
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 <p style="text-align: center;">Tabanella, Stefania</p>

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2008/057848

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2006/130431 A (WYETH CORP [US]; KRISHNAN LALITHA [US]; SUM PHAIK-ENG [US]; DAIGNEAULT) 7 December 2006 (2006-12-07) the whole document -----	1-9
A,P	WO 2007/127292 A (TEVA PHARMA [IL]; TEVA PHARMA [US]; TSIPERMAN EVGENY [IL]; LEVI SIGALI) 8 November 2007 (2007-11-08) the whole document -----	1-9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2008/057848

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.:

see annex

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-9

Form VIII of Tigecycline, processes for its crystallisation and its use as a medicament.

2. claims: 10-20

Form VI of Tigecycline, processes for its crystallisation and its use as a medicament.

3. claim: 21

Process for the crystallisation of form I of Tigecycline.

4. claims: 22-24

Form III of Tigecycline in essentially pure polymorphic form and process for its crystallisation.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2008/057848

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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