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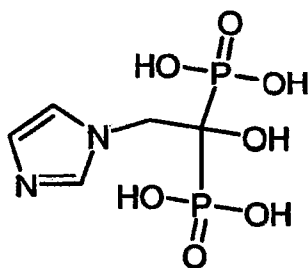
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(54) Title: POLYMORPHIC FORM OF ZOLEDRONIC ACID AND PROCESSES FOR THEIR PREPARATION



(1)

(57) Abstract: The present invention provides Form A and amorphous form of zoledronic acid. The present invention further provides processes for preparation of Form A, Form I and amorphous zoledronic acid. In addition the present invention provides pharmaceutical compositions comprising the polymorphic form and amorphous zoledronic acid.

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**INTERNATIONAL SEARCH REPORT**

International application No

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**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. C07F9/6506

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)  
 C07F

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, PAJ, 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	US 2005/054616 A1 (ARONHIME JUDITH [IL] ET AL) 10 March 2005 (2005-03-10) paragraphs [0225] - [0259]; figures 1-9, 24-30	1-11
X	paragraph [0010] page 11, column 2, line 38 - line 39 page 12, column 2, line 7 - line 8 page 13, column 1, line 11 - line 12 page 13, column 1, line 34 page 13, column 1, line 50	12, 13
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Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

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- \*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
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Date of the actual completion of the international search

2 November 2007

Date of mailing of the international search report

09/11/2007

Name and mailing address of the ISA/

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/066188 A (SUN PHARMACEUTICAL IND LTD [IN]; PATEL VIJAYKUMAR MULJIBHAI [IN]; CHIT) 21 July 2005 (2005-07-21) example 4	1-13
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## INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	SANDERS, JOHN M. ET AL: "3-D QSAR Investigations of the Inhibition of Leishmania major Farnesyl Pyrophosphate Synthase by Bisphosphonates" JOURNAL OF MEDICINAL CHEMISTRY , 46(24), 5171-5183 CODEN: JMCMAR; ISSN: 0022-2623, 2003, XP002447558 page 5181, line 4 - line 9	1-13
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E	WO 2007/069049 A (WOCKHARDT LTD [IN]; YADAV RAM PRASAD [IN]; SHAIKH ZAKIR GAFOOR [IN]; M) 21 June 2007 (2007-06-21) the whole document	1-13

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2007/051644

## 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 allsearchable 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.:  
  
1-13
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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-11

Crystalline Form A of zoledronic acid and a process for its preparation.

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2. claims: 12, 13

Amorphous form of zoledronic acid and a process for its preparation.

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3. claims: 14-16

A process for the preparation of Form I of zoledronic acid.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2007/051644

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Information on patent family members

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