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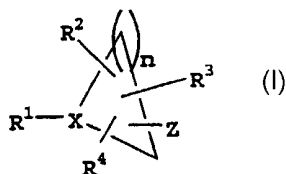
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*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: HETEROCYCLIC SODIUM/PROTON EXCHANGE INHIBITORS AND METHOD



(57) Abstract: Heterocyclic are provided which are sodium/proton exchange (NHE) inhibitors which have the structure (I) wherein n is 1 to 5; X is N or C-R⁵ wherein R⁵ is H, halo, alkenyl, alkynyl, alkoxy, alkyl, aryl or heteroaryl; Z is a heteroaryl group, R¹, R², R³ and R⁴ are as defined herein, and where X is N, R¹ is preferably aryl or heteroaryl, and are useful as antianginal and cardioprotective agents. In addition, a method is provided for preventing or treating angina pectoris, cardiac dysfunction, myocardial necrosis, and arrhythmia employing the above heterocyclic derivatives.

INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07D405/08 C07D413/08 C07D233/88 C07D233/54 C07D239/48 C07D417/08 C07D277/20 C07D401/04 C07D417/04 C07D409/04 C07D403/08 C07D401/14 C07D409/14 C07D403/04 C07D403/06		
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) IPC 7 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, WPI 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.
A	FR 2 765 221 A (SYNTHELABO) 31 December 1998 (1998-12-31) abstract Table page 17, line 1 - line 4 -----	1, 31-36, 42-45, 50
☐ Further documents are listed in the continuation of box C. ☒ Patent family members are listed in annex.		
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Date of the actual completion of the international search	Date of mailing of the international search report	
14 May 2001	28/05/2001	
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 Diederens, J	

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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)

C. 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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- *G* document member of the same patent family

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-27 (partially), 31-61 (partially)

Present claims 1-27, 31-61 relate to an extremely large number of possible compounds/compositions and methods. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds/compositions and methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely all examples described in the description and compounds claimed in claims 28-30.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR 2765221 A	31-12-1998	AU 8220698 A	19-01-1999
		EP 0991639 A	12-04-2000
		WO 9900379 A	07-01-1999
		ZA 9805518 A	28-01-1999
