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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.



(54) Title: PHARMACEUTICAL COMPOSITION COMPRISING A 5HT1 RECEPTOR AGONIST

(57) Abstract: The present invention relates to a pharmaceutical composition for oral administration capable of rapid disintegration and dispersion within the gastrointestinal tract comprising a 5HT1 receptor agonist as active ingredient, in particular a composition in solid-dosage form that is intended to be swallowed, and methods of treatment of cephalic pain, especially migraine, using such

onal Application No

PCT/EP 02/13715 a. classification of subject matter IPC 7 A61K9/22 A61K9/46 A61K31/00 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61K 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, BIOSIS, EMBASE C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages WO 01 80822 A (PROD ETHIQUES ETHYPHARM S A 1-26.X LABORATOIRES) 1 November 2001 (2001-11-01) 28 - 38example 8 χ WO 99 43306 A (BANYU PHARMA CO LTD) 1-18.2 September 1999 (1999-09-02) 20-23, 26,28-37 example 14; table 31 χ ANONYMOUS: "Zomig-ZMT(TM) Orally 1-18.26-33 Disintegrating Tablets" INTERNET ARTICLE, 'Online! 12 February 2001 (2001-02-12), XP002241488 Retrieved from the Internet: <URL:http://www.fda.gov/cder/foi/label/200</pre> 1/212311b1.pdf> 'retrieved on 2003-05-15! page 1 page 2, paragraph 3 -page 10, paragraph 1 χ Patent family members are listed in annex. Further documents are listed in the continuation of box C. χ ° Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention "E" earlier document but published on or after the international "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 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) "document of particular relevance; the claimed invention the 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. "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 06/06/2003 16 May 2003 Authorized officer Name and mailing address of the ISA Ruropean 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 Epskamp, S

Interpretional Application No PC 17 EP 02/13715

		PC17EP 02/13/15
	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Helevant to claim No.
X	WO 92 11003 A (GLAXO LAB SA) 9 July 1992 (1992-07-09) cited in the application example 1 claims	1-20,26, 28-33
X	WO 92 15295 A (GLAXO GROUP LTD) 17 September 1992 (1992-09-17) cited in the application examples claims	3-19, 26-33
X	WO 98 42344 A (SCHERER LTD R P) 1 October 1998 (1998-10-01) page 12, line 1 - line 5 examples 9,10	1-19,26, 28-33
X	AHRENS S P ET AL: "Efficacy and safety of rizatriptan wafer for the acute treatment of migraine." CEPHALALGIA, vol. 19, no. 5, June 1999 (1999-06), pages 525-530, XP002241489 ISSN: 0333-1024 abstract page 525, left-hand column, line 17 -right-hand column, paragraph 1 "Results"	1-18,26, 28-33
X	WO 01 39836 A (NATCO PHARMA LTD) 7 June 2001 (2001-06-07) page 4, line 10 - line 12 examples claims	1-18,26, 28-33
X	WO 01 89485 A (HANMI PHARM CO LTD) 29 November 2001 (2001-11-29) examples 6,7	1-18,26, 28-33
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#### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 1-38 relate to a dosage form comprising a compound which is defined by its activity, namely "5HT1 receptor agonist". Such claims, in which an active agent is characterized by its activity, can only be clear if instructions, in the form of experimental tests or any testable criteria, are available from the patent documents or from the general knowledge allowing the skilled person to recognise which active agents fall within the functional definition, i.e. the activity, and accordingly within the scope of the claim. Since such instructions are not provided, the concept "5HT1 receptor agonist" is not clear, and therefore the subject-matter of claims 1-38 is not clear (Article 6 PCT). Furthermore, the claims cover all compounds having this activity, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds.

In the present case, the claims so lack clarity and 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 clear, supported and disclosed, namely those parts relating to the 5HT1 receptor agonists listed on page 1, lines 13-16 of the application. Also the concept of "5HT1 receptor agonist" was included in the search.

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.



Box I Observations where certain claims were found unsearchable (Continuation of item 1 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. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  Although claims 30-33 are directed to a method of treatment of the
human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. A Claims Nos.:  Decause 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:  See FURTHER INFORMATION sheet PCT/ISA/210
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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This international Searching Authority found multiple inventions in this international application, as follows:
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 fee, this Authority did not invite payment of any additional fee.
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.:
A. 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.  No protest accompanied the payment of additional search fees.

Information on patent family members

International Application No PC 1/EP 02/13715

				107	EP 02/13715
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 0180822	Α	01-11-2001	AU WO EP NO	5482601 A 0180822 A2 1274398 A2 20024947 A'	07-11-2001 01-11-2001 15-01-2003 12-12-2002
WO 9943306	Α	02-09-1999	AU JP JP WO	2640599 A 3228335 B2 11310539 A 9943306 A1	15-09-1999 12-11-2001 09-11-1999 02-09-1999
WO 9211003	A	09-07-1992	ATU AU BEA CH CZ DE C C DE C C C C C C C C C C C C C C C	127688 T 654313 B2 9066591 A 1004182 A3 2099585 A1 684161 A5 9301225 A3 69113062 D1 69113062 T2 563094 T3 9211003 A1 0563094 A1 2078727 T3 2670674 A1 2250917 A 3017701 T3 18795 A 914482 A1 100452 A 1252599 B 6503826 T 188172 B1 9102733 A1 241098 A 2110992 C1 169594 G 5468504 A 9110052 A	15-09-1995 03-11-1994 22-07-1992 06-10-1992 22-06-1992 22-06-1994 16-02-1994 19-10-1995 01-02-1996 04-12-1995 09-07-1992 06-10-1993 16-12-1995 26-06-1992 31-01-1996 17-02-1995 01-07-1992 18-02-1997 19-06-1995 28-04-1994 01-06-1999 01-09-1992 27-07-1993 20-05-1998 28-04-1995 21-11-1995 28-10-1992
WO 9215295	A	17-09-1992	AT AU BE CH CZ CY DE DK WO P S R B K IE IL	165973 T 663303 B2 1326492 A 1005086 A5 2105180 A1 684242 A5 9301849 A3 2011 A 69225421 D1 69225421 T2 503440 T3 9215295 A1 0503440 A1 2117015 T3 2673538 A1 2254784 A 19395 A 920726 A1 101162 A	15-05-1998 05-10-1995 06-10-1992 13-04-1993 09-09-1992 15-08-1994 15-06-1994 20-02-1998 18-06-1998 18-01-1998 18-01-1999 17-09-1992 16-09-1992 01-08-1998 11-09-1992 01-08-1998 11-09-1992 21-10-1992 17-02-1995 09-09-1992 20-11-1997

formation on patent family members

Interestional Application No
PCI/EP 02/13715

				101/11	02/13/13
Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9215295	A		JP JP KR MX NL NZ OA RU SG US US	1271495 B 2986546 B2 6505020 T 202042 B1 9200992 A1 9200423 A 241873 A 9812 A 2098093 C1 169294 G 2002197318 A1 6020001 A 5863559 A 6368627 B1	30-05-1997 06-12-1999 09-06-1994 15-06-1999 01-09-1992 01-10-1992 27-06-1994 15-04-1994 10-12-1997 28-04-1995 26-12-2002 01-02-2000 26-01-1999 09-04-2002
WO 9842344	Α	01-10-1998	ZA AU EP WO JP	9201690 A 	02-08-1993 
WO 0139836	Α	07-06-2001	AU CA EP WO	2023401 A 2392810 A1 1246668 A1 0139836 A1	12-06-2001 07-06-2001 09-10-2002 07-06-2001
WO 0189485	Α	29-11-2001	CN EP WO US	1380829 T 1283703 A1 0189485 A1 2002001617 A1	20-11-2002 19-02-2003 29-11-2001 03-01-2002