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ning of each regular issue of the PCT Gazette.*

(54) Title: ENHANCED BIO-ADHERENT POLYMERIC COMPOSITIONS FOR COATING MUCOSAL AND EPIDERMAL EPITHELIUM

(57) Abstract: An enhanced bioadherent polymeric pharmaceutical compositions and a process for preparation of the same. The composition comprises anionic species of saccharides or sugars duly anionic by virtue of covalently bonded polarizable substituents selected from sucralfate, sucrose octasulfate and its salts, emulsified blend of a hygroscopic agent, amyloextrin starch and polyhydroxyl compound in a weight to weight to weight ratio range from 1:1:10 to 1:4:8. ; one or more anti irritants selected from antacid compounds, acid reducers; proton pump inhibitors; phytotherapeutic herbals and anti-neoplastic agents.



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INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

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, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 447 918 A (MCCULLOUGH ET AL) 5 September 1995 (1995-09-05) cited in the application examples 9,10 -----	1-5, 12-15
X	EP 0 431 877 A (LABORATOIRES SMITH KLINE & FRENCH; SMITHKLINE BEECHAM LABORATOIRES PHA) 12 June 1991 (1991-06-12) examples 7,13 -----	2,4,12, 13,15
X	EP 1 000 614 A (CHUGAI SEIYAKU KABUSHIKI KAISHA) 17 May 2000 (2000-05-17) paragraph [0069] paragraph [0047] - paragraph [0050] ----- -/--	2-4,13, 15

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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 00/78307 A (DAEWOONG PHARMACEUTICAL CO., LTD; YOO, YOUNG-HYO; KIM, HAK-HYUNG; LEE,) 28 December 2000 (2000-12-28) page 9, paragraph 2 example 3 claims 1,4,7	2,4,13
A	----- US 5 464 828 A (KATAYAMA ET AL) 7 November 1995 (1995-11-07) example 3	1-16
A	----- EP 0 974 361 A (CHUGAI SEIYAKU KABUSHIKI KAISHA) 26 January 2000 (2000-01-26) example 6	1-16
A	----- US 5 593 696 A (MCNALLY ET AL) 14 January 1997 (1997-01-14) examples 1-6 -----	1-16

INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/IN2006/000112

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5447918	A	05-09-1995	NONE	
EP 0431877	A	12-06-1991	AT 112961 T	15-11-1994
			AU 629071 B2	24-09-1992
			AU 6770490 A	27-06-1991
			CA 2031066 A1	06-06-1991
			DE 69013473 D1	24-11-1994
			DE 69013473 T2	16-03-1995
			DK 431877 T3	03-04-1995
			ES 2062417 T3	16-12-1994
			FR 2655266 A1	07-06-1991
			IE 904364 A1	05-06-1991
			JP 4145016 A	19-05-1992
			NZ 236326 A	26-05-1993
			PT 96078 A	30-09-1991
			US 5229134 A	20-07-1993
			ZA 9009685 A	29-07-1992
EP 1000614	A	17-05-2000	AU 7675198 A	19-01-1999
			WO 9900112 A1	07-01-1999
			US 6555137 B1	29-04-2003
WO 0078307	A	28-12-2000	AU 4655199 A	09-01-2001
			CN 1354660 A	19-06-2002
			KR 2002031342 A	01-05-2002
US 5464828	A	07-11-1995	NONE	
EP 0974361	A	26-01-2000	AU 1619597 A	28-08-1997
			WO 9728823 A1	14-08-1997
US 5593696	A	14-01-1997	AU 4241596 A	17-06-1996
			JP 10509180 T	08-09-1998
			WO 9615775 A1	30-05-1996