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(54) Title: TOOTH-BLEACHING PREPARATIONS

(57) Abstract: The present invention relates to a tooth bleaching preparation comprising an adduct formulated from starting materials comprising peroxide, urea and an alkali metal polyphosphate, the adduct being provided in the preparation in aqueous conditions and the preparation having a pH in aqueous solution which rises on dilution of the solution.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER INV. A61K8/22 A61K8 A61K8/24 A61K8/42 A61Q11/00 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) A61K A610 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 C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 5 648 064 A (GAFFAR ABDUL [US] ET AL) 1-10,13, 15 July 1997 (1997-07-15) column 2, lines 14-29 example 2 US 6 685 916 B1 (HOLME SAMANTHA K [US] ET χ 1-10,12,AL) 3 February 2004 (2004-02-03) column 2, line 56 - column 3, line 32 examples 2,5 X US 2004/202621 A1 (ORLOWSKI JAN A [US] ET 1-8, AL) 14 October 2004 (2004-10-14) 11 - 14paragraph [0009] examples 1-4,7Further documents are listed in the continuation of Box C. See patent family annex. 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 cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance 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 "Y" document of particular relevance; the claimed invention citation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled *P*\ document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 04/05/2009 21 April 2009 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Briand, Benoit Fax: (+31-70) 340-3016

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2008/050836

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5648064	Α.	15-07-1997	AT	235882 T	15-04-2003
		1	ΑU	699873 B2	17-12-1998
			ΑU	6180396 A	10-02-1997
			BR	9609811 A	06-07-1999
			CA	2226375 A1	30-01-1997
			DE	69627155 D1	08-05-2003
			DE	69627155 T2	29-01-2004
			DK	837670 T3	29-03-2004
4			EP	0837670 A1	29-04-1998
			WO	9702805 A1	30-01-1997
US 6685916	В1	03-02-2004	AU	2003286852 A1	25-05-2004
			BR	0314516 A	09-08-2005
			CA	2493514 A1	13-05-2004
			CN	1691934 A	02-11-2005
			EC	SP034825 A	23-07-2004
			EP	1567230 A2	31-08-2005
			JP	2006504776 T	09-02-2006
			JP	2009024009 A	05-02-2009
			MX	PA05004696 A	03-08-2005
			PA	8587301 A1	26-11-2004
			RU	2290171 C2	27-12-2006
		*	WO	2004039277 A2	13-05-2004
			US	2004136928 A1	15-07-2004
US 2004202621	A1	14-10-2004	NONE	····	