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(54) Title: CARBOXYMETHYLCELLULOSE HAVING IMPROVED SOLUBILITY IN WATER

(57) Abstract: The present invention relates to a procedure for the preparation of granulated carboxymethylcellulose which dissolves rapidly in water; the procedure consists in granulating carboxymethylcellulose in the form of powder in the presence of an aqueous solution of low viscosity carboxymethylcellulose.



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INTERNATIONAL SEARCH REPORT

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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)

IPC 7 C08J C08B C08L B01J

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, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 0020, no. 85 (C-017), 12 July 1978 (1978-07-12) -& JP 53 045357 A (DAICEL CHEM IND LTD), 24 April 1978 (1978-04-24) abstract -& DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 1984, XP002298338 retrieved from STN Database accession no. 1978:460679 abstract	1-5
A	----- US 4 507 473 A (NAEDER REINHARD ET AL) 26 March 1985 (1985-03-26) column 1, line 6 - line 12; claim 1; examples 1-3 ----- -/-	1-5

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☒ Patent family members are listed in annex.

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G document member of the same patent family

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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.
A	PATENT ABSTRACTS OF JAPAN vol. 0183, no. 17 (M-1622), 16 June 1994 (1994-06-16) & JP 6 071643 A (NIPPON PAPER IND CO LTD), 15 March 1994 (1994-03-15) abstract -----	1,6

INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/EP2004/050964

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 53045357	A	24-04-1978	JP 1268239 C	10-06-1985
			JP 59036940 B	06-09-1984
US 4507473	A	26-03-1985	DE 3308420 A1	13-09-1984
			DE 3467582 D1	23-12-1987
			EP 0123056 A2	31-10-1984
			FI 840911 A ,B,	10-09-1984
			JP 1673753 C	26-06-1992
			JP 3033183 B	16-05-1991
			JP 59187028 A	24-10-1984
JP 6071643	A	15-03-1994	JP 2097242 C	02-10-1996
			JP 8002967 B	17-01-1996