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CLASSIFICATION OF SUBJECT MATTER CC 7 A01N59/16 A01N ÎPC 7 A01N25/34 //(A01N59/16,25:34) 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 A01N 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) WPI Data, PAJ, EPO-Internal, CHEM ABS Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Category 9 11,14,15 χ DATABASE WPI Section Ch, Week 199425 Derwent Publications Ltd., London, GB; Class CO7. AN 1994-205053 XP002165364 & JP 06 141914 A (MATSUSHITA DENKI SANGYO KK), 24 May 1994 (1994-05-24) cited in the application 1-10.12.Υ abstract 13,16 EP 0 270 129 A (SHINAGAWA FUEL CO LTD 1-10,12,13.16 ;SHINANEN NEW CERAMIC KK (JP)) 8 June 1988 (1988-06-08) page 3, line 1 - line 49 page 4, line 30 - line 45Further documents are listed in the continuation of box C. Patent family members are listed in 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 filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another involve an inventive step when the document is taken alone "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 other means in the art 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 10/07/2001 28 June 2001 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, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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INTERNATIONAL SEARCH REPORT

Inter fonal Application No PC1/US 00/32169

Category 5	Ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
wgury	onanon or goodfield, thin indication, thiere appropriate, or the relevant passages		
,	EP 0 116 865 A (KANEBO LTD ;KANTO KAGAKU (JP)) 29 August 1984 (1984-08-29) page 3, paragraph 3 -page 23 	1-10,12, 13,16	

1

INTERNATIONAL SEARCH REPORT

formation on patent family members

Inter tonal Application No
PCI/US 00/32169

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
JP	6141914	Α	24-05-1994	JP	3091337 B	25-09-2000
EP	0270129	 А	08-06-1988	AT	86068 T	15-03-1993
				AU	602545 B	18-10-1990
				AU	82 0558 7 A	09-06-1988
				CA	13 04 345 A	30-06-1992
				DE	3784455 A	08-04-1993
				DE	3 78445 5 T	09-06-1993
				ES	2053512 T	01-08-1994
				JP	2 05499 7 C	23-05-1996
				JP	4028646 B	14-05-1992
				JP	63265809 A	02-11-1988
				KR	9100401 B	25-01-1991
				US	4938958 A	03-07-1990
EP.	0116865	 А	29-08-1984	JP	1729959 C	29-01-1993
-				JP	59133235 A	31-07-1984
				JP	63054013 B	26-10-1988
				AU	549375 B	23-01-1986
				CA	1253992 A	09-05-1989
				DE	3461240 D	02-01-1987
				US	4775585 A	04-10-1988
				US	4911899 A	27-03-1990
				US	4911898 A	27-03-1990