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(54) **Shrink-proof treatment of cellulosic fiber textile**

(57) A method for the shrink-proof treatment of a cellulosic fiber textile comprising the steps of treating a cellulosic fiber textile with liquid ammonia and subsequently treating it with steam.

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EUROPEAN SEARCH REPORT

Application Number
EP 98 12 0411

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	K. BREDERECK: "Grundlagen und Anwendung der Flüssigammoniak-Behandlung von Zellulosefasern." TEXTILVEREDLUNG., vol. 20, no. 1, January 1985 (1985-01), pages 12-19, XP002149402 THURGAUER TAGBLATT, WEINFELDEN., CH ISSN: 0040-5310 * page 15, column 2, paragraph 3 * * page 17, paragraph 4.1 * ---	1,2	D06M11/61 //D06M101:06
X	GB 1 084 612 A (SENTRALINSTITUUT FOR INDUSTRIELL FORSKNING ET AL.) * page 1, line 13 - line 19 * * page 2, line 118 - line 121 * ---	1,2	
X	DATABASE WPI Section Ch, Week 199011 Derwent Publications Ltd., London, GB; Class F06, AN 1990-082286 XP002149403 & SU 1 484 846 A (BAST FIBRES IND RES), 7 June 1989 (1989-06-07) * abstract * ---	1	TECHNICAL FIELDS SEARCHED (Int.Cl.6) D06M
X	US 3 980 429 A (LAWRENCE JACKSON ET AL) 14 September 1976 (1976-09-14) * column 9, line 32 - line 50 * -----	1	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 October 2000	Examiner Blas, V
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 12 0411

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05-10-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 1084612 A		NO 118847 B	23-02-1970
		BE 662980 A	17-08-1965
		CH 458277 A	
		DE 1469477 A	02-01-1969
		DK 114614 B	21-07-1969
		FI 43865 B	31-03-1971
		FR 1433022 A	10-06-1966
		JP 51031320 B	06-09-1976
		NL 6505206 A	26-10-1965
		SE 7614625 A	28-12-1976
		US 3406006 A	15-10-1968
SU 1484846 A	07-06-1989	NONE	
US 3980429 A	14-09-1976	US 3915632 A	28-10-1975
		AT 317129 B	12-08-1974
		AU 465072 B	18-09-1975
		AU 3716071 A	28-06-1973
		BE 777960 A	02-05-1972
		BG 21616 A	20-07-1976
		CA 995864 A	31-08-1976
		CH 566416 B	15-09-1975
		CH 54572 B	14-02-1975
		CH 551226 B	15-07-1974
		CH 572770 B	27-02-1976
		CH 596373 B	15-03-1978
		CH 979274 A	15-04-1977
		CS 158574 B	25-11-1974
		DD 95828 A	20-02-1973
		DE 2200519 A	03-08-1972
		DE 2420812 A	06-02-1975
		DK 132129 B	27-10-1975
		EG 11243 A	31-01-1977
		ES 398835 A	16-06-1975
		FI 54340 B	31-07-1978
		FR 2121866 A	25-08-1972
		FR 2238006 A	14-02-1975
		GB 1419922 A	31-12-1975
		GB 1365706 A	04-09-1974
		IE 35961 B	07-07-1976
		IT 948194 B	30-05-1973
		JP 57001627 B	12-01-1982
		JP 50048298 A	30-04-1975
		NL 7317252 A	20-01-1975
		NO 130979 B	09-12-1974
		PH 9536 A	09-01-1976

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 12 0411

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-10-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3980429 A		PH 9936 A	14-06-1976
		RO 61936 A	15-11-1977
		SE 402937 B	24-07-1978
		SE 7405819 A	17-01-1975
		SU 476758 A	05-07-1975
		SU 563929 A	30-06-1977
		TR 17802 A	01-09-1976
		YU 326371 A	28-02-1982
		ZA 7108647 A	27-09-1972
		CS 7403244 A	16-07-1985
		DD 112485 A	12-04-1975
		FI 178774 A	17-01-1975
		IT 1008981 B	30-11-1976
		NO 481273 A,B,	10-02-1975

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82