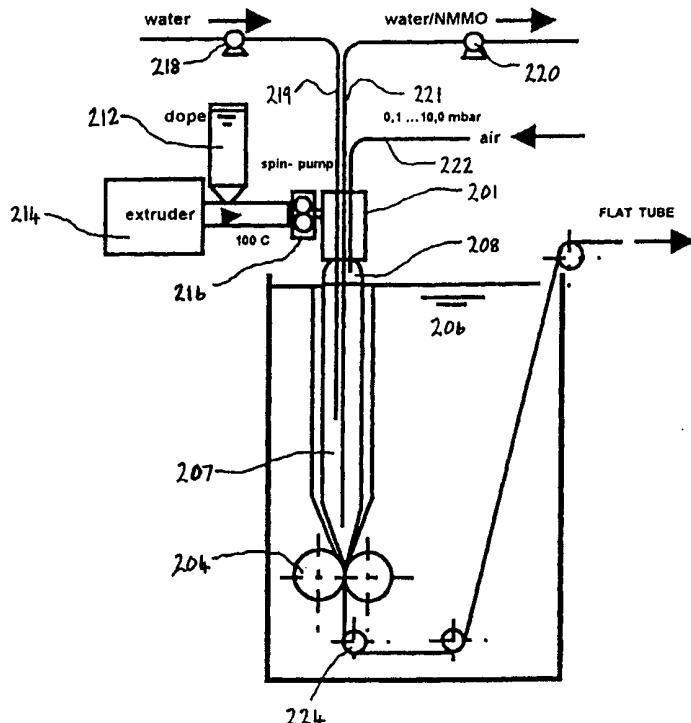




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(72) Inventors; and		
(75) Inventors/Applicants (for US only): BECKERS, Stefan, D. [BE/BE]; Panovenstraat 19, B-3941 Hechtel-Eskel (BE). WEIGEL, Peter [DE/DE]; Seelenbinder 3B, D-14532 Kleinmachnow (DE). FINK, Hans-Peter [DE/DE]; Kiefernweg 7, D-74513 Teltow (DE). DOSZ, Michael [DE/DE]; Hildburghauser Strasse 191A, D-12209 Berlin (DE). PURZ, Hans-Joachim [DE/DE]; Mairenfelder Anger 30, D-14513 Teltow (DE).		
(54) Title: CELLULOSE EXTRUSION		
(57) Abstract		
A process and apparatus used in cellulose extrusion is disclosed. In particular, the process discloses using an inert gas blanket above a cellulose solution wherein the inert gas blanket reduces any undesirable colour variations in the extruded product. Furthermore, the apparatus discloses draw means positioned downstream of the extrusion means to continuously draw the extruded cellulose film from the extrusion means. Apparatus is also disclosed wherein a tubular member is used to receive an extruded blown tube. The product formed using the process and apparatus described herein which has a substantially uniform distribution of fine pores throughout its cross-section is also discussed.		
(74) Agents: MCCALLUM, William, Potter et al.; Cruikshank & Fairweather, 19 Royal Exchange Square, Glasgow G1 3AE (GB).		
(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).		
(88) Date of publication of the international search report: 24 August 2000 (24.08.00)		



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INTERNATIONAL SEARCH REPORT

In: International Application No

PCT/GB 99/03439

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7	B29C47/00	B29C47/10	B29C55/28	B01D71/10	C08B1/00
	C08J5/18		//B29K1:00		

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)

IPC 7 B29C C08B C08J B01D A22C

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)

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X	US 4 196 282 A (FRANKS NEAL E ET AL) 1 April 1980 (1980-04-01) column 8, line 50 - line 65; example 2 ---	1
X	EP 0 822 201 A (DAICEL CHEM) 4 February 1998 (1998-02-04) page 6, line 1 - line 14 ---	1
X	EP 0 807 460 A (AKZO NOBEL NV) 19 November 1997 (1997-11-19) claims 1,36 ---	4,5 -/-



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

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Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

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INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1

storing a solution of cellulose in amine-oxide and water under an inert gas blanket prior to extrusion

2. Claims: 2, 3

Method and apparatus for cellulose film blowing

3. Claims: 4-7

extruded porous cellulose film

INTERNATIONAL SEARCH REPORT

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