

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 May 2001 (17.05.2001)

PCT

(10) International Publication Number
WO 01/34909 A1

(51) International Patent Classification⁷: D21H 23/76
// 17:42, 17:44, 17:66, 17:67, 17:68

(21) International Application Number: PCT/EP00/10821

(22) International Filing Date:
2 November 2000 (02.11.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/164,230 8 November 1999 (08.11.1999) US

(71) Applicant: CIBA SPECIALTY CHEMICALS WATER
TREATMENTS LIMITED [GB/GB]; Cleckheaton Road,
Low Moor, Bradford, West Yorkshire BD12 0JZ (GB).

(72) Inventors: CHEN, Gordon, Cheng, I; 1533 Lauren Ash-
leigh Drive, Chesapeake, VA 23321 (US). RICHARD-
SON, Gary, Peter; 10 Penfield Grove, Clayton, Bradford,
West Yorkshire BD14 6LJ (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, 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, MD, MG, MK, MN, MW, MX, MZ, NO,
NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, 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, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: MANUFACTURE OF PAPER AND PAPERBOARD

(57) Abstract: A process of making paper or paper board comprising forming a cellulosic suspension, flocculating the suspension, draining the suspension on a screen to form a sheet and then drying the sheet, characterised in that the suspension is flocculated using a flocculation system comprising a siliceous material and an anionic branched water soluble polymer that has been formed from water soluble ethylenically unsaturated anionic monomer or monomer blend and branching agent and wherein the polymer has (a) intrinsic viscosity above 1.5 dl/g and/or saline Brookfield viscosity of above about 2.0 mPa.s and (b) rheological oscillation value of tan delta at 0.005 Hz of above 0.7 and/or (c) deionised SLV viscosity number which is at least three times the salted SLV viscosity number of the corresponding unbranched polymer made in the absence of branching agent.



WO 01/34909 A1