

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 September 2011 (15.09.2011)

PCT

(10) International Publication Number
WO 2011/110550 A1

(51) International Patent Classification:

B01D 71/56 (2006.01) **B01D 67/00** (2006.01)
B01D 71/68 (2006.01) **B01D 69/14** (2006.01)
B01D 71/82 (2006.01) **A61L 2/238** (2006.01)

(21) International Application Number:

PCT/EP2011/053457

(22) International Filing Date:

8 March 2011 (08.03.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10155921.9 9 March 2010 (09.03.2010) EP
10166458.9 18 June 2010 (18.06.2010) EP

(71) Applicant (for all designated States except US): **POLYMERS CRC LTD** [AU/AU]; 8 Redwood Drive, Notting Hill, Victoria 3168 (AU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WEIß, Thomas** [DE/DE]; Pfarrstraße 28, 68549 Ilvesheim (DE). **PFAENDNER, Rudolf** [DE/DE]; Sackgasse 3, 64668 Rimbach (DE). **KOCH, Stefan** [DE/DE]; Die Brückengärten 15, 68623 Lampertheim (DE).

(74) Agent: **LINDNER, Anton**; BASF Schweiz AG, IP Department, P.O. Box, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: PROCESS FOR THE PREPARATION OF AN ANTIMICROBIAL ARTICLE

(57) Abstract: Disclosed is a process for preparing an antimicrobial article, wherein a silver colloid is formed in situ as a result of the components employed. The process comprises the steps of (i) providing a liquid, which contains a soluble polar polymer in a solvent selected from certain polar organic solvents; (ii) adding a silver salt selected from alpha-functionalized silver carboxylates to said liquid; (iii) allowing the mixture to react with formation of a silver colloid; and (iv) separating the solvent from the mixture and forming of the antimicrobial article. The antimicrobial articles thus obtained may be sheets, films, fibres, coating layers, and especially membranes like a semipermeable membrane for ultrafiltration, water separation or gas separation.



WO 2011/110550 A1