

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 November 2005 (24.11.2005)

PCT

(10) International Publication Number
WO 2005/111092 A1

(51) International Patent Classification⁷: **C08F 8/20**,
8/24, 12/20, C08C 19/12, 19/16, 19/18

(21) International Application Number:
PCT/US2005/009605

(22) International Filing Date: 22 March 2005 (22.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/838,125 3 May 2004 (03.05.2004) US

(71) Applicant (for all designated States except US): **ENTE-GRIS, INC.** [US/US]; 3500 Lyman Boulevard, Chaska, MN 55318 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BHATT, Sanjiv, M.** [IN/US]; 5894 Red Cherry Lane, Minnetonka, MN 55345 (US).

(74) Agents: **DARDI, Peter, S.** et al.; Patterson, Thunte, Skaar & Christensen, P.A., 4800 IDS Center, 80 South Eighth Street, Minneapolis, MN 55402-2100 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, 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, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

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

(54) Title: FLUORINATED AROMATIC POLYMERS

(57) Abstract: Fluorinated polymers of interest have aromatic groups in their repeat units and at least about 25 % of available aromatic ring positions fluorinated. The aromatic rings can be along the polymer backbone and/or along the side chains of the polymer. In particular, for polymers with the aromatic groups along the polymer backbone generally at least about 55 percent of the aromatic ring positions are fluorinated. Approaches for the fluorination of aromatic polymers can involve a polymer melt that is contacted with an appropriate fluorination reagent. In other approaches, the fluorination is performed in a polymer solution. The fluorination reactions can be performed in a batch operation or a continuous operation.

