

(51) International Patent Classification:
C08J 5/22 (2006.01)(21) International Application Number:
PCT/US2012/053770(22) International Filing Date:
5 September 2012 (05.09.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13/253,227 5 October 2011 (05.10.2011) US(71) Applicant (for all designated States except US): **GENERAL ELECTRIC COMPANY** [US/US]; 1 River Road, Schenectady, NY 12345 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MACDONALD, Russell, James** [US/US]; 135 Flanders Road, Westborough, MA 01581 (US). **GUDIPATI, Chakravarthy** [IN/SG]; 16 Simei Street, Unit 04-01, Melville Park, Singapore 529942 (SG). **ZHANG, Kai** [CN/SG]; WS2-4-4, 1 Engineering Drive 1, Singapore 117580 (SG).(74) Agents: **WINTER, Catherine, J.** et al.; GENERAL ELECTRIC COMPANY, Global Patent Operation, 2 Corporate Drive, Suite 648, Shelton, CT 06484 (US).

(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, BN, 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, QA, RO, RS, RU, RW, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

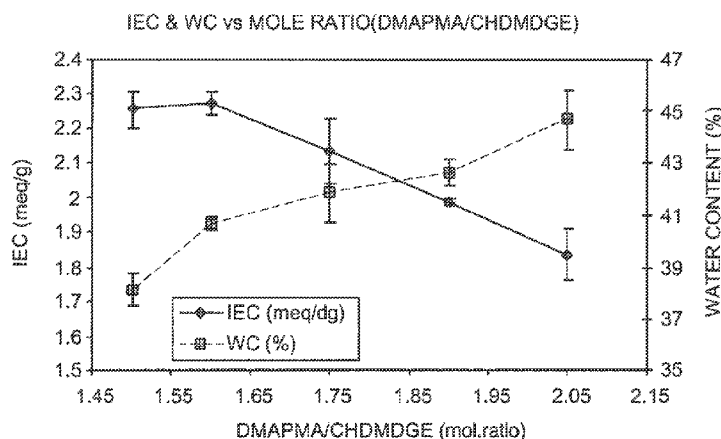
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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

[Continued on next page]

(54) Title: ION EXCHANGE COMPOSITIONS, METHODS FOR MAKING AND MATERIALS PREPARED THEREFROM



FIGURE

(57) Abstract: An ion exchange polymer composition is provided, which includes a primary crosslinker and a secondary crosslinker. The primary crosslinker includes a crosslinked ionic monomer including a quaternary ammonium group. A method for making the ion exchange polymer composition and materials prepared from the ion exchange polymer composition are also provided.



-
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*