



(51) International Patent Classification:

C08C 19/22 (2006.01) C08C 19/44 (2006.01)
C08C 19/25 (2006.01) C08L 9/06 (2006.01)
C08C 19/26 (2006.01)

(21) International Application Number:

PCT/EP2010/007804

(22) International Filing Date:

20 December 2010 (20.12.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/288,519 21 December 2009 (21.12.2009) US

(71) Applicant (for all designated States except US): **STYRON EUROPE GMBH** [CH/CH]; Bachtobelstrasse 3, CH-8810 Horgen (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **THIELE, Sven** [DE/DE]; Käuzchenweg 2, 06120 Halle (DE). **RULHOFF, Sascha** [DE/DE]; Rathenauplatz 5, 06114 Halle (DE).(74) Agent: **HAMMER, Jens**; Grünecker, Kinkeldey, Stockmair & Schwanhäusser, Leopoldstrasse 4, 80802 München (DE).

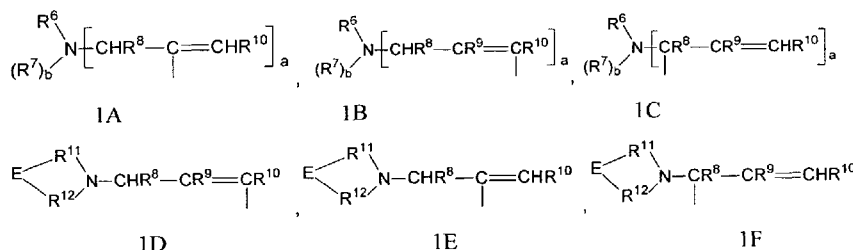
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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))
- 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))

(54) Title: MODIFIED POLYMER COMPOSITIONS



(57) Abstract: The invention provides a first composition comprising at least the following: i) a modified polymer comprising at least one branched modified polymer macromolecule (b1) and at least one linear modified polymer macromolecule (a1), and wherein the at least one branched modified polymer macromolecule and the at least one linear modified polymer macromolecule each, independently, comprises at least one amine group selected from the group consisting of formulas (1 A-1F), each as described above Formula 1A, Formula 1B, Formula 1C, Formula 1D, Formula 1E, Formula 1F, and combinations thereof; and wherein the at least one branched modified polymer macromolecule further comprises one of the structures (ib1 -ib4) as described above, and the at least one linear modified polymer macromolecule further comprises one of the structures (iib1-iib2) as described above.