

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
17 November 2022 (17.11.2022)



(10) International Publication Number
WO 2022/240932 A1

(51) International Patent Classification:
C08J 3/28 (2006.01) C08J 3/24 (2006.01)

(21) International Application Number:
PCT/US2022/028687

(22) International Filing Date:
11 May 2022 (11.05.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/187,860 12 May 2021 (12.05.2021) US

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(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, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH,
KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA,
MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, ST, 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,
KM, ML, MR, NE, SN, TD, TG).

Published:

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



WO 2022/240932 A1

(54) Title: RHEOLOGY MODIFIED OLEFIN-BASED POLYMER COMPOSITION AND METHOD FOR MAKING IT

(57) Abstract: A process to form a rheology modified composition, the process comprising applying radiation, and optionally heat, to a composition that comprises at least the following component: a) an olefin-based polymer comprising a total unsaturation ≥ 0.20 /1000C; and wherein the radiation is applied using an electron beam (e-beam) at a dosage selected from 0.1 MRad to 1.5 MRad; and wherein component a is selected from a telechelic polyolefin of the formula $A^1L^1L^2A^2$, an unsaturated polyolefin of the formula A^1L^1 , or an ethylene/alpha-olefin interpolymers. A process to form a rheology modified composition, the process comprising applying heat, and optionally radiation, to a composition that comprises at least the following components: a) an olefin-based polymer, as described above, comprising a total unsaturation ≥ 0.20 /1000C; b) from 1.0 to 100 ppm of a peroxide, based on the weight of the composition.