

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 March 2007 (29.03.2007)

PCT

(10) International Publication Number
WO 2007/035485 A1

(51) International Patent Classification:
C08F 297/08 (2006.01)

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(21) International Application Number:
PCT/US2006/036038

(22) International Filing Date:
14 September 2006 (14.09.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/717,545 15 September 2005 (15.09.2005) US

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(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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

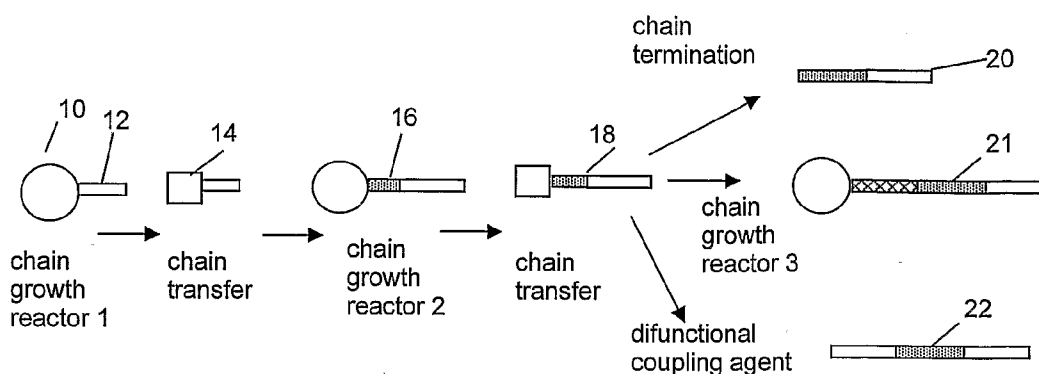
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: CATALYTIC OLEFIN BLOCK COPOLYMERS WITH CONTROLLED BLOCK SEQUENCE DISTRIBUTION



(57) Abstract: A process for the polymerization of one or more addition polymerizable monomers and the resulting polymer products, said process comprising: 1) contacting an addition polymerizable monomer or mixture of monomers under addition polymerization conditions in a reactor or reactor zone with a composition comprising at least one olefin polymerization catalyst and a cocatalyst and characterized by the formation of polymer chains from said monomer or monomers; 2) transferring the reaction mixture to a second reactor or reactor zone and optionally adding one or more additional reactants, catalysts, monomers or other compounds prior to, commensurate with, or after said transfer; and 3) causing polymerization to occur in said second reactor or reactor zone to form polymer chains that are differentiated from the polymer chains formed in step 1); said process being characterized by addition of a chain shuttling agent to the reaction mixture prior to, during, or subsequent to step 1) such that at least some of the resulting polymer molecules from step 3) comprise two or more chemically or physically distinguishable blocks or segments.

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