

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 June 2001 (14.06.2001)

PCT

(10) International Publication Number
WO 01/42249 A1

- (51) International Patent Classification⁷: C07F 5/02, (74) Agents: RUNYAN, Charles, E. et al.; ExxonMobil Chemical Company, P.O. Box 2149, Baytown, TX 77522-2149 (US).
C08F 10/00, 4/643
- (21) International Application Number: PCT/US00/33590
- (22) International Filing Date: 11 December 2000 (11.12.2000) (81) Designated States (national): BR, CA, CN, JP, KR, MX, SG.
- (25) Filing Language: English (84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- (26) Publication Language: English
- (30) Priority Data:
60/169,768 9 December 1999 (09.12.1999) US
60/169,876 9 December 1999 (09.12.1999) US
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- 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.
- 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.*



WO 01/42249 A1

(54) Title: OLEFIN POLYMERIZATION COCATALYSTS DERIVED FROM GROUP-15 COMPOUNDS AND PROCESSES USING THEM

(57) Abstract: Fluorinated amine compounds, $R'_iArF-ER_2$, where ArF is a fluoroaryl substituent, E is nitrogen or phosphorous, each R is independently a C_1-C_{20} hydrocarbyl substituent, or the two R's may be connected to form an unsubstituted or substituted C_2-C_{20} cycloaliphatic substituent, R' is a C_1-C_{20} hydrocarbyl or halogenated hydrocarbyl, and i is 0, 1 or 2 are disclosed. These compounds may be protonated and complexed with suitable substantially noncoordinating anions to prepare polymerization catalyst components. When these catalyst components are combined with organometallic catalyst precursors, the catalyst precursor is activated to a catalyst. This catalyst is combined with monomer under olefin polymerization conditions to prepare polymer. High number-average molecular weight polymers at high productivity rates were observed from using metallocene catalysts activated with [N-pentafluorophenyl pyrrolidinium] [tetrakis(pentafluorophenyl) borate].