

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/052011 A1

(51) International Patent Classification⁷: **C08F 10/00**,
10/14

(21) International Application Number:
PCT/US2004/037784

(22) International Filing Date:
12 November 2004 (12.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/720,024 21 November 2003 (21.11.2003) US

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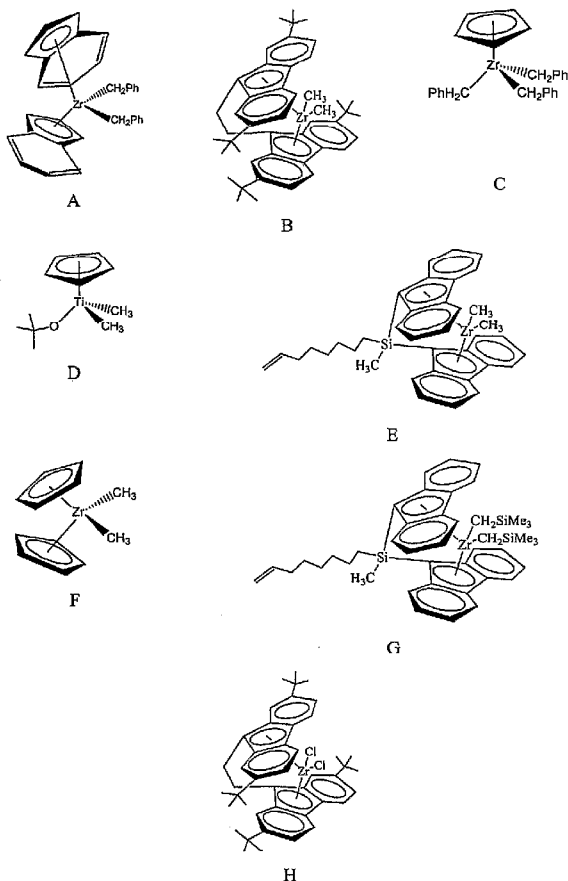
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: CATALYST COMPOSITIONS FOR PRODUCING POLYOLEFINS IN THE ABSENCE OF COCATALYSTS



(57) Abstract: This invention relates to the field of olefin polymerization catalyst compositions, and methods for the polymerization and copolymerization of olefins, including polymerization methods using a supported catalyst composition. One aspect of this invention is the preparation and use of a catalyst composition comprising a hydrocarbyl-substituted metallocene compound and a chemically treated solid oxide for olefin polymerization processes. In another aspect, for example, this invention encompasses the preparation of a catalyst composition comprising (η^5 cycloalkadienyl)₂Zr(hydrocarbyl)₂ complexes and sulfated alumina, but containing no organoaluminum or organoboron cocatalysts, and further the use of this catalyst composition for polymerizing olefins.



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(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, LU, MC, NL, PL, PT, RO, SE,

Published:

— *with international search report*

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