

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/058928 A1

- (51) International Patent Classification⁷: **C07F 17/00**,
C08F 10/00, C07D 215/04, 215/12
- (21) International Application Number:
PCT/EP2004/014226
- (22) International Filing Date:
14 December 2004 (14.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
103 59 341.1 16 December 2003 (16.12.2003) DE
60/543,360 10 February 2004 (10.02.2004) US
- (71) Applicant (for all designated States except US): **BASELL POLYOLEFINE GMBH** [DE/DE]; Brühler Strasse 60, 50389 Wesseling (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MIHAN, Shahram** [IR/DE]; Am Eichwald 18, 65812 Bad Soden (DE). **ENDERS, Markus** [DE/DE]; Waldhofer Str. 52, 69120 Heidelberg (DE). **FERNANDEZ, Pablo** [ES/DE]; Schröderstrasse 48, 69120 Heidelberg (DE).
- (74) Common Representative: **BASELL POLYOLEFINE GMBH**; Intellectual Property -F 206, 67056 Ludwigshafen (DE).
- (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, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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
- 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.

(54) Title: MONOCYCLOPENTADIENYL COMPLEXES

(57) **Abstract:** Monocyclopentadienyl complexes in which the cyclopentadienyl system bears at least one bridged donor and at least one aryl group and a catalyst system comprising at least one of the monocyclopentadienyl complexes, and also processes for preparing them, the use of the catalyst system for the polymerization or copolymerization of olefins and a process for preparing polyolefins by polymerization or copolymerization of olefins in the presence of the catalyst system and the preparation of the associated cyclopentadienyl system.



WO 2005/058928 A1