

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/064994 A3

(51) International Patent Classification⁷: **B01J 37/16**,
31/18, 31/30, C07F 15/04, C07C 253/10

(21) International Application Number:
PCT/US2004/001073

(22) International Filing Date: 14 January 2004 (14.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/341,860 14 January 2003 (14.01.2003) US

(71) Applicant (for all designated States except US): **INVISTA TECHNOLOGIES S.à.r.l.** [US/US]; Intellectual Property Record Center, 4417 Lancaster Pike, CRP 722/1032, Wilmington, DE 19805 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JACKSON, Scott, C.** [US/US]; 700 Kilburn Road, Wilmington, Delaware 19803 (US). **MCKINNEY, Ronald, J.** [US/US]; 1243 Lakewood Drive, Wilmington, Delaware 19803 (US).

(74) Agent: **KRUKIEL, Charles, E.**; Invista Technologies S.a.r.l., 4417 Lancaster Pike, CRP 722/1032, Wilmington, DE 19805 (US).

(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, 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, IT, LU, MC, NL, 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

(88) Date of publication of the international search report:
30 September 2004

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: PROCESS FOR THE PREPARATION OF A NICKEL/PHOSPHOROUS LIGAND CATALYST FOR OLEFIN HYDROCYANATION

(57) Abstract: A process for preparing a hydrocyanation catalyst comprising contacting a bidentate phosphorous-containing ligand with nickel chloride in the presence of a nitrile solvent and a reducing metal which is more electropositive than nickel the nickel chloride being introduced as an aqueous solution and the water being removed concurrently with the reduction reaction by azeotropic distillation, or prior to the reduction with NiCl₂ by azeotropic distillation.



WO 2004/064994 A3