PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6: B01J 21/14, 37/30, C08F 10/00 — A1

(11) International Publication Number: WO 99/48605

(43) International Publication Date: 30 September 1999 (30.09.99)

(21) International Application Number: PCT/US99/04565

(22) International Filing Date: 2 March 1999 (02.03.99)

(30) Priority Data:
60/079,442 26 March 1998 (26.03.98) US

(71) Applicant: THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US).

(72) Inventors: SUN, Tao; 600 Foxboro Court, Midland, MI 48640 (US). WILSON, David, R.; 1220 West Stewart Road, Midland, MI 48640 (US). GARCES, Juan, M.; 1106 West Sugnet Street, Midland, MI 48640 (US).

(74) Agent: DELINE, Douglas, N.; Patent Dept., P.O. Box 1967, Midland, MI 48641–1967 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, 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 the receipt of amendments.

(54) Title: ION EXCHANGED ALUMINIUM–MAGNESIUM OR FLUORINATED MAGNESIUM SILICATE AEROGELS AND CATALYST SUPPORTS THEREFROM

(57) Abstract

Aluminum–magnesium silicate– or fluorinated magnesium silicate– aerogels which may be calcined, chemically modified, ion–exchanged, agglomerated, used as a component of a catalyst composition for an addition polymerization; supported versions thereof; and processes for polymerization are disclosed.