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(21) International Application Number: PCT/US98/19314 (22) International Filing Date: 16 September 1998 (16.09.98) (30) Priority Data: 60/059,572 19 September 1997 (19.09.97) US 60/059,573 19 September 1997 (19.09.97) US 60/059,574 19 September 1997 (19.09.97) US (71) Applicant (for all designated States except US): THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Mid- land, MI 48674 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): CARNAHAN, Edmund, M. [US/US]; 4619 Twin Elm Drive, Fresno, TX 77545 (US). CHEN, Eugene, Y. [CN/US]; 2500 Abbott Road M-4, Midland, MI 48642 (US). JACOBSEN, Grant, B. [GB/US]; 5454 Newcastle Drive #1845, Houston, TX 77081 (US). STEVENS, James, C. [US/US]; 2026 Pecan Trail Drive, Richmond, TX 77469 (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, 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, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, 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 <i>With international search report.</i>
(54) Title: MODIFIED ALUMOXANE CATALYST ACTIVATOR (57) Abstract A catalyst activator particularly adapted for use in the activation of metal complexes of metals of Group 3-10 for polymerization of ethylenically unsaturated polymerizable monomers, especially olefins, comprising: a composition comprising a mixture of aluminum containing Lewis acids said mixture corresponding to the formula: $[(-AlQ^1-O-)_z (-AlAr^f-O-)_z] (Ar^f)_z (Al_2Q^{1-z-z'})$ where Q^1 independently each occurrence is selected from C_{1-20} alkyl; Ar^f is a fluorinated aromatic hydrocarbyl moiety of from 6 to 30 carbon atoms; z is a number from 1 to 50, preferably from 1.5 to 40, more preferably from 2 to 30, and the moiety $(-AlQ^1-O-)$ is a cyclic or linear oligomer with a repeat unit of 2-30; z' is a number from 1 to 50, preferably from 1.5 to 40, more preferably from 2 to 30, and the moiety $(-AlAr^f-O-)$ is a cyclic or linear oligomer with a repeat unit of 2-30; and z'' is a number from 0 to 6, and the moiety $(Ar^f)_z (Al_2Q^{1-z-z'})$ is either tri(fluoroarylaluminum), trialkylaluminum, or an adduct of tri(fluoroarylaluminum) with a sub-stoichiometric to super-stoichiometric amount of a trialkylaluminum.		