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(21) International Application Number: PCT/EP98/01639 (22) International Filing Date: 20 March 1998 (20.03.98) (30) Priority Data: 08/832,017 2 April 1997 (02.04.97) US (71) Applicant (for all designated States except MN): ARCO CHEMICAL TECHNOLOGY, L.P. [US/US]; Two Greenville Crossing, Suite 238, 4001 Kennett Pike, Greenville, DE 19807 (US). (71) Applicant (for MN only): ARCO CHEMIE TECHNOLOGIE NEDERLAND B.V. [NL/NL]; Theemsweg 14, NL-3197 KM Botlek Rotterdam (NL). (72) Inventor: FARAJ, Mahmoud, K.; 3421 West Chester Pike, Newtown Square, PA 19073 (US). (74) Agent: SMAGGASGALE, Gillian, Helen; Mathys & Squire, 100 Gray's Inn Road, London WC1X 8AL (GB).		(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, GW, 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, 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, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>
(54) Title: TELLURIUM, TITANIUM AND SILICON-CONTAINING MOLECULAR SIEVES (57) Abstract Zeolites containing silicon, titanium and tellurium oxides are prepared by a hydrothermal method which yields materials containing exceptionally high levels of catalytically active Ti species. Following calcination, the molecular sieves are active and selective catalysts for the epoxidation of olefins using hydrogen peroxide or organic hydroperoxide. The zeolites may have framework structures of varying topology, including MFI, MEL, BEA, ZSM-48, MTW or MCM-41.		