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(21) International Application Number: PCT/EP98/02681 (22) International Filing Date: 4 May 1998 (04.05.98) (30) Priority Data: <table border="0"> <tr> <td>08/851,105</td> <td>5 May 1997 (05.05.97)</td> <td>US</td> </tr> <tr> <td>08/900,794</td> <td>25 July 1997 (25.07.97)</td> <td>US</td> </tr> <tr> <td>09/060,375</td> <td>15 April 1998 (15.04.98)</td> <td>US</td> </tr> </table> (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) Inventors: HAN, Yuan-Zhang; 235 Oxford Road, West Chester, PA 19380 (US). CARROLL, Kevin, M.; 511 Kathmere Road, Havertown, PA 19083 (US). MORALES, Edrick; B-39, 1518 Manley Road, West Chester, PA 19382 (US). GASTINGER, Robert, G.; 904 Thistle Lane, West Chester, PA 19380 (US).		08/851,105	5 May 1997 (05.05.97)	US	08/900,794	25 July 1997 (25.07.97)	US	09/060,375	15 April 1998 (15.04.98)	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, 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, ML, MR, NE, SN, TD, TG). Published Without international search report and to be republished upon receipt of that report.
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(54) Title: EPOXIDATION PROCESS USING IMPROVED HETEROGENEOUS CATALYST COMPOSITION (57) Abstract Highly active and selective epoxidation catalysts are prepared by combining silica or the like with a non-oxygenated hydrocarbon solution of titanium halide, removing solvent, calcining at an elevated temperature (preferably, in a substantially oxygen-free atmosphere), and, optionally, reacting with water and silylating. The resulting materials are useful heterogeneous catalysts for transforming olefins to epoxides using organic hydroperoxides.											