

(51) International Patent Classification:
B01J 21/04 (2006.01)(21) International Application Number:
PCT/US2010/031025(22) International Filing Date:
14 April 2010 (14.04.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/171,209 21 April 2009 (21.04.2009) US(71) Applicant (for all designated States except US): **DOW TECHNOLOGY INVESTMENTS LLC** [US/US]; 2020 Dow Center, Midland, Michigan 48674 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LIU, Albert, C.** [US/US]; 1534 Quarrier Street, Charleston, West Virginia 25311 (US). **SOO, Hwailli** [US/US]; 116 East Ridge Road, Charleston, West Virginia 25314 (US).(74) Agent: **JORDAHL, Kimberly, S.**; KSJLaw, LLC, PO Box 59, Marine on St. Croix, Minnesota 55047 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

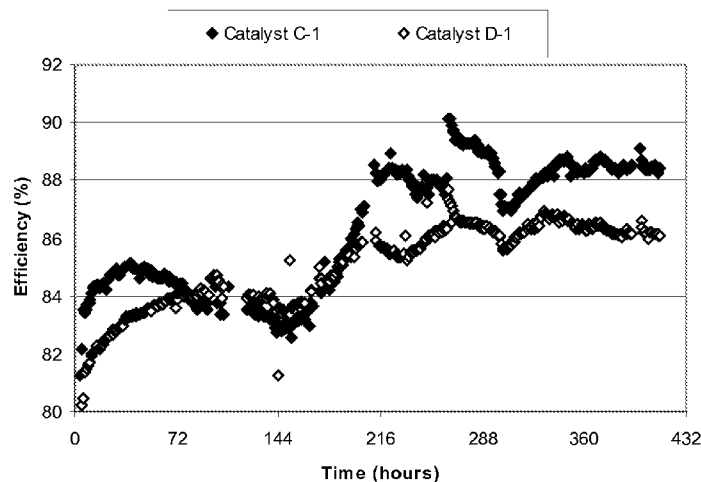
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: RHENIUM-PROMOTED EPOXIDATION CATALYSTS AND METHODS OF MAKING AND USING THEM

FIGURE 9

(57) Abstract: The present invention provides rhenium-promoted epoxidation catalysts based upon shaped porous bodies comprising a minimized percentage of their total pore volume being present in pores having diameters of less than one micron, and a surface area of at least about 1.0 m²/g. Processes of making the catalysts and using them in epoxidation processes are also provided.