

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 November 2007 (01.11.2007)

PCT

(10) International Publication Number
WO 2007/124343 A2

(51) International Patent Classification:
B01J 38/00 (2006.01)

(21) International Application Number:
PCT/US2007/066934

(22) International Filing Date: 19 April 2007 (19.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/408,336 21 April 2006 (21.04.2006) US

(71) Applicant (for all designated States except US):
CHEVRON U.S.A. INC. [US/US]; 6001 Bollinger Canyon Road, 3rd Floor, San Ramon, California 94583 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ELOMARI, Saleh** [US/US]; 4460 Rolling Meadows Court, Fairfield, CA 94534 (US). **HARRIS, Thomas V.** [US/US]; 183 W. Seaview Drive, Benicia, CA 94510 (US). **TIMKEN, Hye Kyung C.** [US/US]; 710 Pomona Avenue, Albany, CA 94706 (US). **TRUMBULL, Steven E.** [US/US]; 398 Breed Avenue, San Leandro, CA 94577 (US).

(74) Agents: **ROTH, Steven H.** et al.; Chevron Corporation, Law Department, P.O. Box 6006, San Ramon, California 94583 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, 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

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: REGENERATION OF IONIC LIQUID CATALYST USING A METAL IN THE ABSENCE OF ADDED HYDROGEN

(57) Abstract: A process for regenerating a used acidic ionic liquid catalyst comprising contacting the used ionic liquid catalyst with at least one metal in a regeneration zone in the absence of added hydrogen under regeneration conditions for a time sufficient to increase the activity of the ionic liquid catalyst is described. In one embodiment, regeneration is conducted in the presence of a hydrocarbon solvent.



WO 2007/124343 A2