(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 December 2008 (18.12.2008)

PCT

(10) International Publication Number
WO 2008/153758 A3

(51) International Patent Classification:
B01J 29/04 (2006.01)

(21) International Application Number:
PCT/US2008/006630

(22) International Filing Date:
23 May 2008 (23.05.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/931,610	24 May 2007 (24.05.2007)	US
12/125,868	22 May 2008 (22.05.2008)	US

(71) Applicant *(for all designated States except US)*: **SAUDI BASIC INDUSTRIES CORPORATION** [SA/SA]; P.O. Box 5101, Riyadh, 11422 (SA).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **STEVENSON, Scott, A.** [US/US]; 19106 Waverdale Court, Houston, TX 77094 (US). **KHANMAMEDOVA, Alla, K.** [US/US]; 2006 Summerfield Pl., Sugar Land, TX 77478 (US). **FARMER, Dustin, B.** [US/US]; 2219 Briarwest Blvd., Houston, TX 77077 (US). **MITCHELL, Scott, F.** [US/US]; 7 Valcourt Place, The Woodlands, TX 77382 (US). **VARTULI, Jim** [US/US]; 1212 Princeton Lane, West Chester, PA 19380 (US).

(74) Agent: **WHEELINGTON, Jimmy**; SABIC Americas, Inc., SABIC Technology Center, 1600 Industrial Blvd., Sugar Land, TX 77478 (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, 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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

[Continued on next page]

(54) Title: CATALYST FOR CONVERSION OF HYDROCARBONS, PROCESS OF MAKING AND PROCESS OF USING THEREOF - GE ZEOLITE

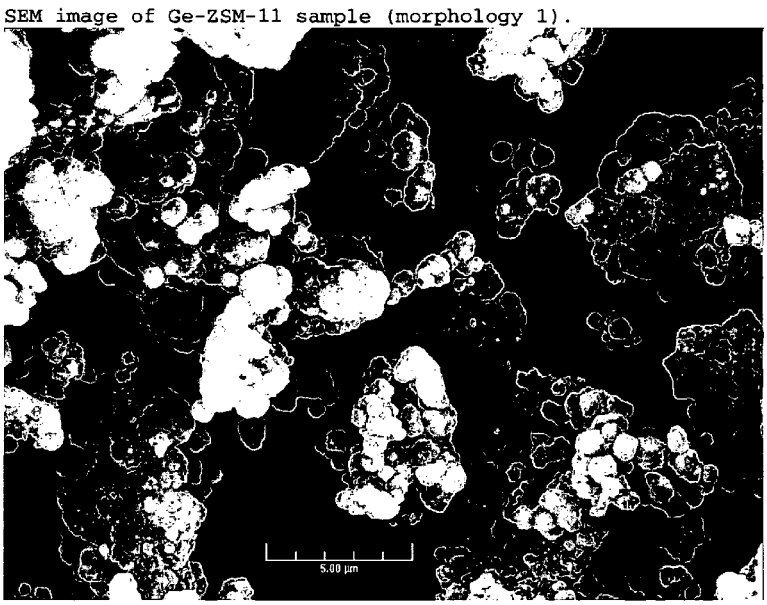

Figure 2

(57) Abstract: This invention is for a catalyst for conversion of hydrocarbons. The catalyst is a medium pore germanium zeolite, a germanium aluminophosphate (AIPO) or a germanium silicoaluminophosphate (SAPO). At least one metal selected from Group 10 is deposited on the medium pore zeolite and, optionally on the germanium aluminophosphate (AIPO) or a germanium silicoaluminophosphate (SAPO). The catalyst is prepared by synthesizing a medium pore zeolite, an aluminophosphate (AIPO) or a silicoaluminophosphate (SAPO) with germanium incorporated into the framework and calcining medium pore germanium zeolite, germanium aluminophosphate (AIPO) or germanium silicoaluminophosphate (SAPO). At least one metal may be deposited on the germanium zeolite, germanium aluminophosphate (AIPO) or germanium silicoaluminophosphate (SAPO).

WO 2008/153758 A3

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

(88) Date of publication of the international search report:
30 December 2009

Published:

— *with international search report (Art. 21(3))*