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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 July 2009 (09.07.2009)

PCT

(10) International Publication Number
WO 2009/085290 A1

(51) International Patent Classification:
C01B 39/00 (2006.01)

(21) International Application Number:
PCT/US2008/014055

(22) International Filing Date:
24 December 2008 (24.12.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/009,376 28 December 2007 (28.12.2007) US

(71) Applicant *(for all designated States except US)*: **EXXONMOBIL RESEARCH AND ENGINEERING COMPANY** [US/US]; 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KOWALSKI, Jocelyn, A.** [US/US]; 113 Brookside Way, Mullica Hill, NJ 08062 (US). **ELIA, Christine, N.** [US/US]; 437 Garretson Road, Bridgewater, NJ 08807 (US). **SANTIESTEBAN, Jose, G.** [US/US]; 1874 Viola Lane, Hellerton, PA 18055 (US). **ACHARYA, Madhav** [US/US]; 7939 Tyson Oaks Circle, Vienna, VA 22182 (US). **DAAGE, Michel, A.** [FR/US]; 1847 Viola Lane, Hellertown, PA 18055 (US). **DANDEKAR, Ajit, B.** [US/US]; 315 Hannah Way, Bridgewater, NJ 08807 (US). **SINCLAIR, Darden** [US/US]; 6555 Westgate Drive, Beaumont, TX 77706 (US). **KALYANARAMAN, Mohan** [US/US]; 732 Iris Lane, Media, PA 19063 (US). **ZHANG, Lei** [CN/US]; 4239 Hunt Club Circle, Apt. 1321, Fairfax, VA 22033 (US).

(74) Agents: **BAKUN, Estelle, C.** et al.; Exxonmobil Research And Engineering Company, 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (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, ST, 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,

[Continued on next page]

(54) Title: HYDROPROCESSING CATALYSTS WITH LOW SURFACE AREA BINDERS

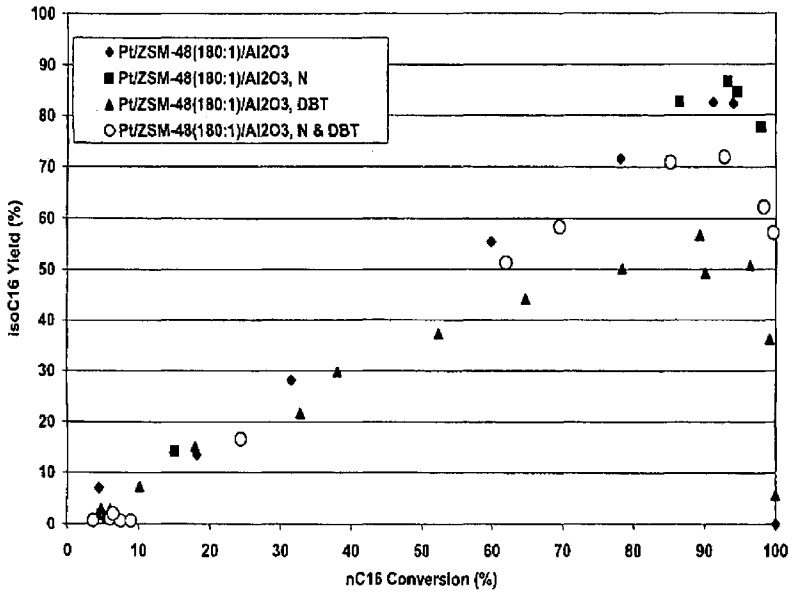


FIG. 1

(57) Abstract: Catalysts for dewaxing of hydrocarbon feeds, particularly feeds with elevated sulfur and nitrogen levels, are provided. The dewaxing catalysts include a zeolite with a low silica to alumina ratio combined with a low surface binder, or alternatively the formulated catalyst has a high ratio of zeolite surface area to external surface area.

WO 2009/085290 A1

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).

Published:
— *with international search report*