

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 September 2006 (08.09.2006)

PCT

(10) International Publication Number
WO 2006/094006 A3

(51) International Patent Classification:
C07C 2/02 (2006.01)

(21) International Application Number:
PCT/US2006/007168

(22) International Filing Date:
28 February 2006 (28.02.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/656,954 28 February 2005 (28.02.2005) US
11/362,257 27 February 2006 (27.02.2006) US

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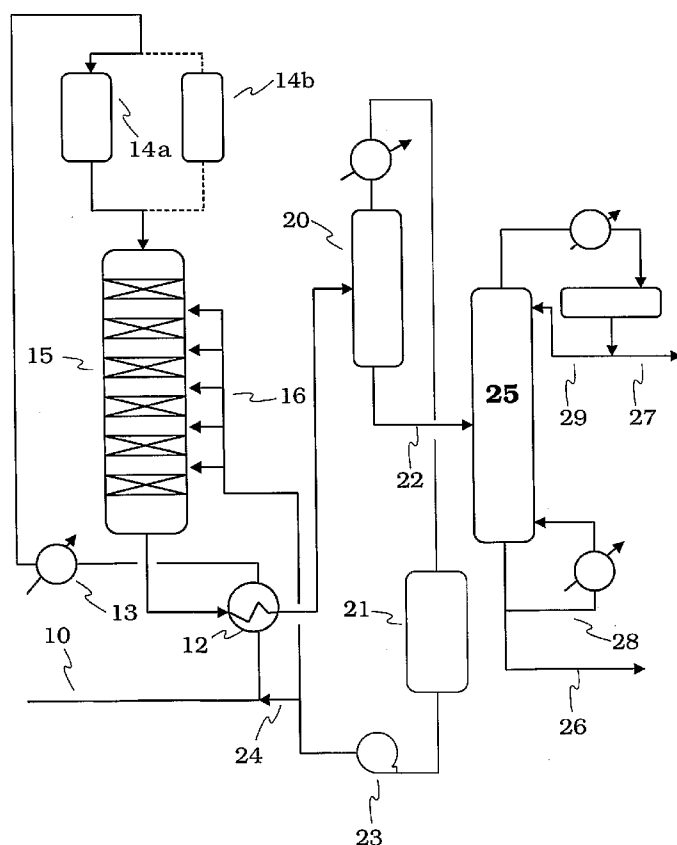
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

[Continued on next page]

(54) Title: GASOLINE PRODUCTION BY OLEFIN POLYMERIZATION



(57) Abstract: Solid phosphoric acid (SPA) olefin oligomerization process units may be converted to operation with a more environmentally favorable solid catalyst. The SPA units in which a light olefin feed is oligomerized to form gasoline boiling range hydrocarbon product, is converted unit to operation with a molecular sieve based olefin oligomerization catalyst comprising an MWW zeolite material. Besides being more environmentally favorable in use, the MWW based zeolites offer advantages in catalyst cycle life, selectivity and product quality. After loading of the catalyst, the converted unit is operated as a fixed-bed unit by passing the C₂-C₄ olefinic feed to a fixed bed of the MWW zeolite condensation catalyst, typically at a temperature from 150 to 250°C, a pressure not greater than 7000 kPag, usually less than 4000 kPag and a space velocity up to 30 WHSV. The gasoline boiling range product is notable for a high level of branched chain octenes resulting in high octane quality.



AT, AU, AZ, BA, BB, BG, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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:

— *with international search report*

- (88) **Date of publication of the international search report:**
21 December 2006

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.