

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 November 2005 (03.11.2005)

PCT

(10) International Publication Number
WO 2005/103206 A1

- (51) International Patent Classification⁷: **C10G 45/08**, B01J 23/887, 37/20, 27/051, 27/049
- (21) International Application Number: PCT/EP2005/004265
- (22) International Filing Date: 19 April 2005 (19.04.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/564,409 22 April 2004 (22.04.2004) US
04076994.5 9 July 2004 (09.07.2004) EP
- (71) Applicant (for all designated States except US): **ALBE-MARLE NETHERLANDS B.V.** [NL/NL]; Stationsplein 4, NL-3818 LE Amersfoort (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **EIJSBOUTS, Sonja** [NL/NL]; Goudenregenstraat 1, NL-5253 BE Nieuwkuijk (NL). **SOLED, Stuart, Leon** [US/US]; 21 Cooks Cross Road, Pittstown, NJ 08867 (US). **MISEO, Sabato** [US/US]; 770 County Road 579, Pittstown, NJ 08867 (US).
- (74) Agents: **DERKS, Wilbert, Wilhelmus, Hubertus, Petrus** et al.; c/o Howrey Simon Arnold & White, Rembrandt Tower, Amstelplein 1, 31 st. Floor, NL-1096 HA Amsterdam (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, 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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, 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, 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
- 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: HYDROTREATING CATALYST CONTAINING A GROUP V METAL

(57) Abstract: The present invention pertains to a sulfur-containing catalyst composition suitable for the hydrotreating of hydrocarbon feeds which comprises a Group VIB metal component selected from molybdenum, tungsten, and mixtures thereof, a Group V metal component selected from vanadium, niobium, tantalum, and mixtures thereof, and a Group VIII metal component selected from nickel, cobalt, iron, and mixtures thereof, the metal components (calculated as oxides) making up at least 50 wt.% of the catalyst, wherein the molar ratio between the metal components satisfies the following formula: (Group VIB + Group V):(Group VIII) = 0.5-2:1. This catalyst has been found to show a high activity in sulfur removal in combination with good aromatics removal properties.



WO 2005/103206 A1