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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 May 2006 (04.05.2006)

PCT

(10) International Publication Number
WO 2006/046952 A1

(51) International Patent Classification[7]: B01J 21/06, 23/10, 23/63, 23/652

(21) International Application Number:
PCT/US2004/035497

(22) International Filing Date: 26 October 2004 (26.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant *(for all designated States except US)*: **UOP LLC** [US/US]; John G. Tolomei, Assistant Secretary-Patent Matters, 25 East Algonquin Road, P.O. Box 5017, Des Plaines, IL 60017-5017 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **GILLESPIE, Ralph, D.** [US/US]; UOP LLC, 25 East Algonquin Road, P.O. Box 5017, Des Plaines, IL 60017-5017 (US).

(74) Common Representative: **UOP LLC**; John G. Tolomei, Assistant Secretary-Patent Matters, 25 East Algonquin Road, P.O. Box 5017, Des Plaines, IL 60017-5017 (US).

(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, 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, 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, IT, 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.

WO 2006/046952 A1

(54) Title: ISOMERIZATION CATALYST AND PROCESSES

(57) Abstract: A catalyst and process is disclosed to selectively upgrade a paraffinic feedstock to obtain an isoparaffin-rich product for blending into gasoline. The catalyst comprises a support of a tungstated oxide or hydroxide of a Group IVB (IUPAC 4) metal, a first component of at least one lanthanide element, yttrium or mixtures thereof, which is preferably ytterbium or holmium, and at least one platinum-group metal component which is preferably platinum.