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| <b>(51) International Patent Classification <sup>7</sup> :</b><br><b>C10G 27/04</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 00/37589</b><br><b>(43) International Publication Date:</b> 29 June 2000 (29.06.00)                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>(21) International Application Number:</b> PCT/US99/28792<br><b>(22) International Filing Date:</b> 7 December 1999 (07.12.99)<br><br><b>(30) Priority Data:</b><br>09/216,573 18 December 1998 (18.12.98) US<br><br><b>(71) Applicant:</b> EXXON RESEARCH AND ENGINEERING COMPANY [US/US]; P.O. Box 390, 180 Park Avenue, Florham Park, NJ 07932-0390 (US).<br><br><b>(72) Inventors:</b> GREANEY, Mark, Alan; 1265 River Road, Upper Black Eddy, PA 18972 (US). BEARDEN, Roby, Jr.; 505 Stanford Avenue, Baton Rouge, LA 70808 (US). KERBY, Michael, Charles; 10731 McShay Avenue, Baton Rouge, LA 70810 (US).<br><br><b>(74) Agents:</b> SCUORZO, Linda, M. et al.; Exxon Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US). |           | <b>(81) Designated States:</b> AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i> |
| <b>(54) Title:</b> METHOD FOR DECREASING THE METALS CONTENT OF PETROLEUM STREAMS<br><br><b>(57) Abstract</b><br><br>The invention relates to a process for demetallating a petroleum stream by contacting a metals-containing petroleum feed in the presence of a base selected from Group IA and IIA hydroxides and carbonates and ammonium hydroxide and carbonates and mixtures thereof, an oxygen containing gas and a phase transfer agent at a temperature of up to 180 °C for a time sufficient to produce a treated petroleum feed having a decreased metals content. The invention provides a method for enhancing the value of petroleum feeds that traditionally have limited use in refineries due to their metals, e.g., Ni and V content.           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |