

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C10G 17/00, 17/08, C07C 7/148, 7/152	A1	(11) International Publication Number: WO 98/14534
		(43) International Publication Date: 9 April 1998 (09.04.98)

(21) International Application Number: **PCT/US97/18048**(22) International Filing Date: **3 October 1997 (03.10.97)**(30) Priority Data:
08/726,014 **4 October 1996 (04.10.96)** **US**(71) Applicant: **EXXON RESEARCH AND ENGINEERING COMPANY [US/US]; 180 Park Avenue, P.O. Box 390, Florham Park, NJ 07932-0390 (US).**(72) Inventors: **BLUM, Saul, C.; 4 Watson Court East, Edison, NJ 08820 (US). SARTORI, Guido; 73 Meadowview Drive, Annandale, NJ 08801 (US). SAVAGE, David, W.; 5 Fieldstone Drive, Lebanon, NJ 08833 (US). BALLINGER, Bruce, H.; 18 Overlook Road, Bloomsbury, NJ 08804 (US).**(74) Agents: **HANTMAN, Ronald, D. et al.; Exxon Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US).**(81) Designated States: **AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).****Published***With international search report.**Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*(54) Title: **CO₂ TREATMENT TO REMOVE CALCIUM FROM CRUDE**

(57) Abstract

The present invention is a process to remove a +2 ionic charged metal from a petroleum feed. The process includes contacting feed with carbon dioxide at a temperature between 40 °C and 200 °C and autogenous pressure. In a preferred embodiment the metal is a Group II metal. In particular, the metal is calcium.