



(43) International Publication Date
24 May 2012 (24.05.2012)

(10) International Publication Number
WO 2012/068277 A2

(51) International Patent Classification:

C10G 27/02 (2006.01) C10G 29/12 (2006.01)
C10G 27/14 (2006.01) C10G 27/00 (2006.01)

(21) International Application Number:

PCT/US2011/061035

(22) International Filing Date:

16 November 2011 (16.11.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/950,060 19 November 2010 (19.11.2010) US
12/950,170 19 November 2010 (19.11.2010) US
12/950,637 19 November 2010 (19.11.2010) US

(71) Applicant (for all designated States except US): **CHEVRON U.S.A. INC.** [US/US]; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **YEAN, Sujin** [KR/US]; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US).

(74) Agents: **PHAM, Hahn T.** et al.; Chevron Corporation, Law Department, P.O. Box 6006, San Ramon, California 94583-0806 (US).

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

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: PROCESS, METHOD, AND SYSTEM FOR REMOVING HEAVY METALS FROM FLUIDS

(57) Abstract: Trace amount levels of heavy metals such as mercury, arsenic, etc., in crude oil are reduced by contacting the crude oil with an oxidizing agent, extracting heavy metals into a water phase for subsequent separation from the crude oil. In one embodiment, the oxidizing agent is selected from the group of hydroperoxides, organic peroxides, inorganic peracids and salts thereof, organic peracids and salts thereof, halogens such as iodine (I₂), bromine (Br₂), and ozone. In another embodiment, at least a complexing agent selected from the group of metal halides and/or sulfur compounds can be added to facilitate the removal of heavy metals from crude oil by forming soluble heavy metal complexes in the water phase.



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