

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 May 2022 (05.05.2022)



(10) International Publication Number
WO 2022/090946 A1

(51) International Patent Classification:

C10M 169/04 (2006.01) *C10N 30/02* (2006.01)
C10N 10/06 (2006.01) *C10N 30/08* (2006.01)
C10N 10/12 (2006.01) *C10N 30/10* (2006.01)
C10N 20/00 (2006.01) *C10N 40/25* (2006.01)
C10N 30/00 (2006.01) *C10N 60/14* (2006.01)

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))

(21) International Application Number:

PCT/IB2021/059908

Published:

- with international search report (Art. 21(3))

(22) International Filing Date:

27 October 2021 (27.10.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/106,538 28 October 2020 (28.10.2020) US

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

(72) Inventors: **VAN DAM, Willem**; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US). **PATEL, Mihir K.**; 6001 Bollinger Canyon Road, San Ramon, California 94583 (US).

(74) Agent: **OWENS, Howard V.** et al.; 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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, ML, MR, NE, SN, TD, TG).

(54) Title: LUBRICATING OIL COMPOSITION WITH RENEWABLE BASE OIL, HAVING LOW SULFUR AND SULFATED ASH CONTENT AND CONTAINING MOLYBDENUM AND BORON COMPOUNDS

(57) Abstract: A lubricant composition and method for improving engine performance using a renewable base oil composition comprising hydrocarbon mixtures and a lubricant additive having a sulfur content of up to about 0.4 wt.% and a sulphated ash content of up to about 0.5 wt. % is described herein.

WO 2022/090946 A1