

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 August 2011 (04.08.2011)

(10) International Publication Number
WO 2011/094571 A1

PCT

(51) International Patent Classification:

C10M 111/04 (2006.01) *C10N 40/25* (2006.01)
C10N 30/06 (2006.01) *C10N 40/26* (2006.01)

(21) International Application Number:

PCT/US2011/022965

(22) International Filing Date:

28 January 2011 (28.01.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/337,182	1 February 2010 (01.02.2010)	US
61/337,205	1 February 2010 (01.02.2010)	US
61/337,213	1 February 2010 (01.02.2010)	US
61/337,215	1 February 2010 (01.02.2010)	US
61/337,204	1 February 2010 (01.02.2010)	US

(71) Applicant (*for all designated States except US*):
EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **TELLIER, Kathleen, H.** [US/US]; 26 Robin Lake Drive, Cherry Hill, NJ 08003 (US). **CAREY, Vincent, Mark** [US/US]; 132 Lipizzan Road, Sewell, NJ 08080 (US). **CROUTHAMEL, Kevin, Louis** [US/US]; 52 Galloway Road, Richboro, PA 18904 (US).

(74) Agent: **BAKUN, Estelle, C.**; Exxonmobil Research and Engineering Company, 1545 Route 22 East, P.O. Box 900, Annandale, NJ 08801-0900 (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, RO, RS, RU, 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, 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).

Published:

— *with international search report (Art. 21(3))*

(54) Title: METHOD FOR IMPROVING THE FUEL EFFICIENCY OF ENGINE OIL COMPOSITIONS FOR LARGE LOW AND MEDIUM SPEED ENGINES BY REDUCING THE TRACTION COEFFICIENT

(57) Abstract: The present invention is directed to a method for improving the fuel efficiency of low and medium speed engine oil compositions by reducing the traction coefficient of the oil by formulating the oil using at least two base stocks of different kinematic viscosity wherein the differences in kinematic viscosity between the base stocks is at least 30 mm²/s.



WO 2011/094571 A1