



(51) International Patent Classification:

C10M 161/00 (2006.01) *C10N 40/25* (2006.01)
C10N 30/06 (2006.01)

(21) International Application Number:

PCT/US2013/043227

(22) International Filing Date:

30 May 2013 (30.05.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/486,345 1 June 2012 (01.06.2012) US

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

(72) Inventors: TSOU, Andy, Haishung; 3381 Pheasant Hill Drive, Allentown, PA 18104 (US). MINAK-BERNERO, Vera; 945 Papen Road, Bridgewater, NJ 08807 (US). WEBSTER, Martin, N.; 5 Harbourton Ridge Drive, Pennington, NJ 08534 (US). HADJICHRISTIDIS, Nikos; Bizaniou 4, GR-15237 Filothei, Athens (GR).

(74) Agents: MIGLIORINI, Robert, A. et al.; 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, BN, 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, 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, PA, 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.

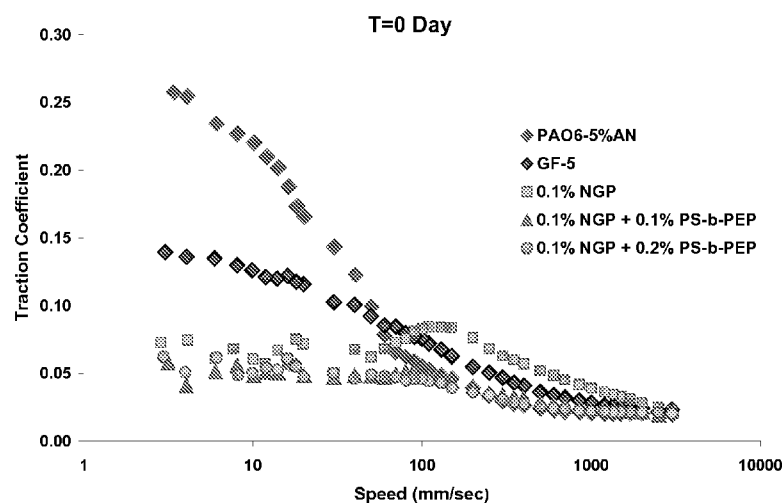
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, 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).

Published:

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

(54) Title: LUBRICANT COMPOSTIONS AND PROCESSES FOR PREPARING SAME

Fig. 1



(57) Abstract: Provided is a method for stabilizing a dispersion of a carbon nanomaterial in a lubricating oil basestock. The method includes providing a lubricating oil basestock; dispersing a carbon nanomaterial in the lubricating oil basestock; and adding at least one block copolymer thereto. The at least one block copolymer has two or more blocks includes at least one alkenylbenzene block and at least one linear alpha olefin block. The at least one block copolymer is present in an amount sufficient to stabilize the dispersion of the carbon nanomaterial in the lubricating oil basestock. Also provided is a lubricating engine oil having a composition including: a lubricating oil base stock; a carbon nanomaterial dispersed in the lubricating oil basestock; and at least one block copolymer.