



(51) International Patent Classification:

C07C 2/58 (2006.01) *B01J 19/18* (2006.01)
C10M 171/00 (2006.01) *B01J 8/02* (2006.01)
C10M 105/04 (2006.01)

(21) International Application Number:

PCT/US2011/053853

(22) International Filing Date:

29 September 2011 (29.09.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/966,638 13 December 2010 (13.12.2010) US

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(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))

[Continued on next page]

(54) Title: PROCESS TO MAKE BASE OIL BY OLIGOMERIZING LOW BOILING OLEFINS

STATIC MIXER LOOP REACTOR

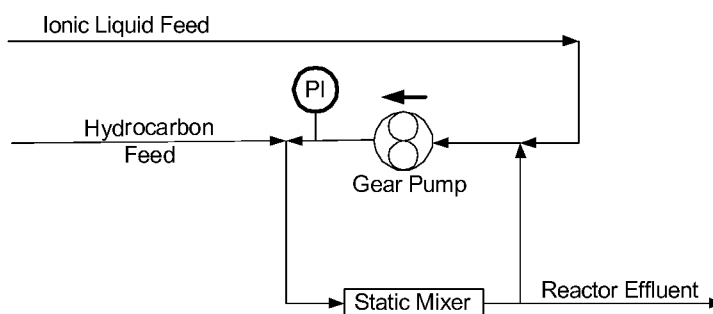


FIG. 1

(57) Abstract: A process for making base oil, comprising: oligomerizing one or more olefins having a boiling point less than 82°C in the presence of an ionic liquid catalyst to produce the base oil having a kinematic viscosity at 40°C of 1100 mm²/s or higher. Also, a process, comprising: oligomerizing the olefins in the presence of an ionic liquid catalyst to produce the base oil having a kinematic viscosity at 40°C of 300 mm²/s or higher and a low cloud point, wherein a wt% yield of products boiling at 482°C+ (900°F+) is at least 65 wt% of a total yield of products from the oligomerizing. Additionally, a process, comprising: oligomerizing the olefins in the presence of an ionic liquid catalyst to produce the base oil having a kinematic viscosity at 40°C greater than 1100 mm²/s and a low cloud point.



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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) — before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

Published:

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