

(43) International Publication Date
25 November 2010 (25.11.2010)(10) International Publication Number
WO 2010/135064 A2

(51) International Patent Classification:

C07C 2/60 (2006.01) *C07B 61/00* (2006.01)
C07C 1/30 (2006.01)

(21) International Application Number:

PCT/US2010/032980

(22) International Filing Date:

29 April 2010 (29.04.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/468,750 19 May 2009 (19.05.2009) 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, 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 (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

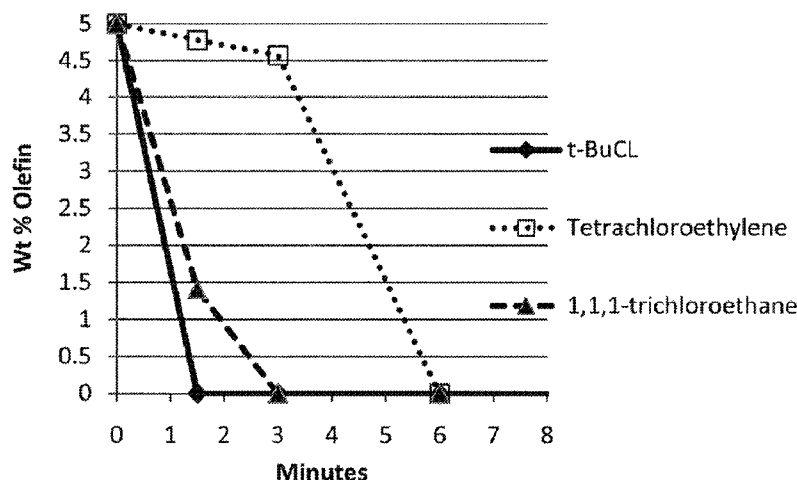
Declarations under Rule 4.17:

- 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: HYDROCONVERSION PROCESS WITH ALKYL HALIDE COMPRISING AT LEAST 55 WT% HALIDE

FIGURE 1

(57) Abstract: A process comprising: contacting a blend of hydrocarbons under hydroconversion conditions in a hydroconversion zone with a mixture of an acidic ionic liquid catalyst and at least one alkyl halide comprising at least 55 wt% halide and having a boiling point of 70°C or higher. An alkylation process comprising: contacting a blend of hydrocarbons under alkylation conditions with a mixture of an acidic ionic liquid catalyst that is a chloroaluminate and at least one alkyl halide comprising 1,1,1 trichloroethane, tetrachloroethylene, or a mixture thereof; wherein greater than 99.9 wt% of an at least one olefin in the blend of hydrocarbons is alkylated. Also, a hydroconversion process comprising drying the alkyl halide.