



(51) International Patent Classification:

C07C 11/02 (2006.01) *B01J 23/46* (2006.01)
C07C 2/58 (2006.01) *C07C 15/08* (2006.01)
B01J 23/40 (2006.01)

(21) International Application Number:

PCT/US2013/074312

(22) International Filing Date:

11 December 2013 (11.12.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/736,098 12 December 2012 (12.12.2012) US

(71) Applicant: UOP LLC [US/US]; 25 East Algonquin Road,
P. O. Box 5017, Des Plaines, IL 60017-5017 (US).

(72) Inventor: NICHOLAS, Christopher, P.; UOP LLC, 25
East Algonquin Road, P. O. Box 5017, Des Plaines, IL
60017-5017 (US).

(74) Agent: GOLDBERG, Mark; UOP LLC, 25 East Algon-
quin Road, P. O. Box 5017, Des Plaines, IL 60017-5017
(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, IR, 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, SA,
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))
- 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))

(54) Title: PROCESS FOR THE GENERATION OF 2,5-DIMETHYLHEXENE FROM ISOBUTENE

(57) Abstract: A method of making one or more 2,5-dimethylhexenes is described. The method includes reacting isobutene with isobutanol in the presence of a platinum group metal catalyst to form one or more 2,5-dimethylhexenes. A method of making p-xylene using one or more 2,5-dimethylhexenes is also described. The p-xylene can be made from totally renewable sources, if desired.

