



- (51) International Patent Classification:
C07C 1/213 (2006.01)
- (21) International Application Number:
PCT/SG2013/000123
- (22) International Filing Date:
28 March 2013 (28.03.2013)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
201202262-0 28 March 2012 (28.03.2012) SG
- (71) Applicant: AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH [SG/SG]; 1 Fusionopolis Way, #20-10 Connexis, Singapore 138632 (SG).
- (72) Inventors: STUBBS, Ludger; c/o Institute of Chemical and Engineering Sciences, 1 Pesek Road, Jurong Island, Singapore 627833 (SG). LI, Chuanzhao; c/- Institute of Chemical and Engineering Sciences, 1 Pesek Rd, Jurong Island, Singapore 627833 (SG).
- (72) Inventor: WONG, Pui Kwan (deceased).
- (72) Inventor: MEURS, Martin van; c/o Institute of Chemical and Engineering Sciences, 1 Pesek Road, Jurong Island, Singapore 627833 (SG).
- (74) Agent: SPRUSON & FERGUSON (ASIA) PTE LTD; P.O. Box 1531, ROBINSON ROAD POST OFFICE, Singapore 903031 (SG).

(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, 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, 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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: A PROCESS TO PRODUCE A DIENE FROM A LACTONE

(57) Abstract: The invention provides a process for the production of a diene. In the process, a lactone is heated in the presence of a first catalyst system to produce an alkene and carbon dioxide and the alkene is contacted with a second catalyst system to produce an alkylidene.

