



(43) International Publication Date  
20 June 2013 (20.06.2013)

(10) International Publication Number  
**WO 2013/089962 A1**

(51) International Patent Classification:

**B01J 31/04** (2006.01) **B01J 31/18** (2006.01)  
**B01J 31/14** (2006.01) **B01J 31/22** (2006.01)

(21) International Application Number:

PCT/US2012/065285

(22) International Filing Date:

15 November 2012 (15.11.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/323,328 12 December 2011 (12.12.2011) US

(71) Applicant (for all designated States except US): **CHEVRON PHILLIPS CHEMICAL COMPANY LP** [US/US]; 10001 Six Pines Drive, The Woodlands, Texas 77380 (US).

(72) Inventors; and

(71) Applicants (for US only): **SYDORA, Orson** [CA/US]; 2518 Oakdale Street, Houston, Texas 77004 (US). **KNUDSEN, Ronald** [US/US]; 1412 Meadow Lane, Bartlesville, Oklahoma 74006 (US). **BARALT, Eduardo** [US/US]; 3615 Spruce Park Circle, Kingwood, Texas 77345 (US).

(74) Agent: **CONLEY ROSE, P.C.**; 5601 Granite Parkway, Suite 750, Piano, TX 75024-6608 (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, 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).

Published:

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

(54) Title: PREPARATION OF AN OLEFIN OLIGOMERIZATION CATALYST

(57) Abstract: This disclosure provides for new catalyst systems and new methods for preparing and using the catalyst systems for generating a trimerization product. In an aspect, the new catalyst systems comprise a chromium carboxylate that is prepared by anhydrous metathesis. In another aspect, the catalyst system comprise a chromium carboxylate that is prepared by anhydrous metathesis and a metal pyrrolide compound. The catalyst systems imparts improved performance and/or reduced catalyst system cost to an olefin trimerization process.



WO 2013/089962 A1