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(71) Applicants (for all designated States except US):

CHEVRON PHILLIPS CHEMICAL COMPANY LP [US/US]; 10001 Six Pines Drive, The Woodlands, TX 77380 (US). **KNUDSEN, Ronald D.** [US/US]; 1412 Meadow Lane, Bartlesville, OK 74006 (US). **ABBOTT, Ronald G.** [US/US]; 3923 Laurel Rock Drive, Kingwood, TX 77345 (US). **KREISCHER, Bruce E.** [US/US]; 20443 Crimson Oak Trail, Humble, TX 77346 (US). **BARALT, Eduardo J.** [US/US]; 3822 Wildwood Valley, Kingwood, TX 77345 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SMALL, Brooke L.** [US/US]; 3135 Beaver Glen Drive, Kingwood, TX 77339 (US).

(74) Agents: **CARROLL, Rodney B.** et al.; 5700 Granite Parkway, Suite 330, Plano, TX 75024 (US).

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(54) Title: METHODS OF PREPARATION OF AN OLEFIN OLIGOMERIZATION CATALYST

(57) Abstract: A method of making an olefin oligomerization catalyst, comprising contacting a chromium-containing compound, a heteroatomic ligand, and a metal alkyl, wherein the chromium-containing compound comprises less than about 5 weight percent chromium oligomers. A method of making an olefin oligomerization catalyst comprising a chromium-containing compound, a nitrogen-containing compound, and a metal alkyl, the method comprising adding a composition comprising the chromium-containing compound to a composition comprising the metal alkyl. A method of making an olefin oligomerization catalyst comprising a chromium-containing compound, a nitrogen-containing compound, and a metal alkyl, the method comprising abating all or a portion of water, acidic protons, or both from a composition comprising the chromium-containing compound, a composition comprising the nitrogen-containing compound, or combinations thereof prior to or during the preparation of the catalyst. Methods of oligomerizing olefins by contacting such catalysts with an alpha olefin.

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