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(71) Applicant: **DOW GLOBAL TECHNOLOGIES LLC**
[US/US]; 2211 H.H. Dow Way, Midland, Michigan 48674 (US).(72) Inventors: **DO, Hien Q.**; c/o The Dow Chemical Company, 230 Abner Jackson Parkway, Lake Jackson, Texas 77566 (US). **FONTAINE, Philip P.**; c/o The Dow Chemical Company, 230 Abner Jackson Parkway, Lake Jackson, Texas 77566 (US). **DELORBE, Johnathan E.**; c/o The Dow Chemical Company, 230 Abner Jackson Parkway, Lake Jackson, Texas 77566 (US). **MUKHOPADHYAY, Sukrit**; c/o Dow Global Technologies LLC, 2211 H.H. Dow

Way, Midland, Michigan 48674 (US). **COONS, Marc P.**; c/o Dow Global Technologies LLC, 2211 H.H. Dow Way, Midland, Michigan 48674 (US). **JIN, Yi**; c/o The Dow Chemical Company, 230 Abner Jackson Parkway, Lake Jackson, Texas 77566 (US). **VIGIL, JR., Alfred E.**; c/o The Dow Chemical Company, 230 Abner Jackson Parkway, Lake Jackson, Texas 77566 (US).

(74) Agent: **GIBBONS, Michael P.** et al.; Fifth Third Center, One South Main Street, Suite 1300, Dayton, Ohio 45402 (US).

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(54) Title: HETEROATOM-BRIDGED BIS-PHENYL-PHENOXY CATALYSTS AND ETHYLENE COPOLYMERS WITH IMPROVED FEATURES

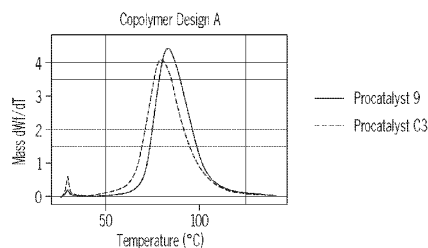
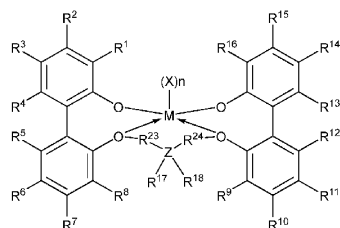


FIG. 1A

(57) Abstract: Embodiments are directed to a catalyst system comprising a metal-ligand complex having the following structure: where R¹⁷ and R¹⁸ are independently (C₅-C₄₀)hydrocarbyl. Embodiments are also directed to an ethylene-based polymer comprising the polymerized reaction product of ethylene monomer and 1-butene comonomer, wherein the ethylene-based polymer has a density from 0.854 g/cm³ to 0.875 g/cm³, a melt index I₂ from 0.1 to 30 dg/min, a melt flow ratio (I₁₀/I₂) from 5 to 15, a molecular weight distribution (MWD) from 1.5 to 5, and an HCC (high comonomer content) value of less than 1.4 wt%.



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