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(54) **Title:** MOLECULAR WEIGHT CONTROL OF POLYOLEFINS USING HALOGENATED BIS-PHENYLPHENOXY CATALYSTS

(57) **Abstract:** A process for preparing an olefin homopolymer or copolymer comprises contacting ethylene, an alpha-olefin, or a combination, and a catalytic amount of a metal-ligand complex catalyst of a particular formula that requires at least one halogen atom that is ortho to a bridging moiety. The strategic location of the halogen atom(s) ensures a product having a molecular weight that is predictably and significantly reduced in comparison with that of copolymers produced using otherwise identical metal-ligand complex catalysts that lack halogen atoms at the specified sites.

