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(54) **Title:** OLEFIN-BASED POLYMERS AND DISPERSION POLYMERIZATIONS

(57) **Abstract:** The invention provides a polymerization process comprising polymerizing a reaction mixture comprising one or more monomer types, at least one catalyst, and at least one solvent, to form a polymer dispersion, and wherein the at least one catalyst is soluble in the at least one solvent, and wherein the polymer forms a dispersed phase in the solvent, and wherein the at least one solvent is a hydrocarbon. The invention provides a composition comprising an ethylene-based polymer comprising at least the following properties: a) a weight average molecular weight (Mw(abs)) greater than, or equal to, 60,000 g/mole; and b) a molecular weight distribution (Mw(abs)/Mn(abs)) greater than, or equal to, 2.3.



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