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(54) Title: MULTIPLE CATALYST AND REACTOR SYSTEM FOR OLEFIN POLYMERIZATION AND POLYMERS PRODUCED THEREFROM

(57) Abstract: This invention relates to a continuous process to produce a branched olefin polymer comprising: 1) selecting a first catalyst component capable of producing a polymer having an Mw of 100,000 or less and a crystallinity of 20% or less under selected polymerization conditions; 2) selecting a second catalyst component capable of producing polymer having an Mw of 100,000 or less and a crystallinity of 20% (preferably 40% or more) or more at the selected polymerization conditions; 3) contacting a catalyst component, one or more activators and one or more C2 to C40 olefins in a first reaction zone, at a temperature of greater than 70°C, and at a residence time of 120 minutes or less; and 4) transferring the contents of the first reaction zone to a second reaction zone and further contacting the contents with a catalyst component, an activator and or one or more C2 to C40 olefins, at a temperature of greater than 70°C, and at a residence time of 120 minutes or less; and 5) optionally, transferring the contents of the second reaction zone to a third reaction zone and further contacting the contents with a catalyst compound, an activator and or one or more C2 to C40 olefins, at a temperature of greater than 70°C, and at a residence time of 120 minutes or less; and 6) recovering a branched olefin polymer comprising at least 50 o mole % of one or more C3 to C40 olefins, where the first catalyst component is present in at least one reaction zone and the second catalyst component is present in a second reaction zone and where in at least one reaction zone the C2 to C40 olefin is a C3 to C40 alpha-olefin.

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