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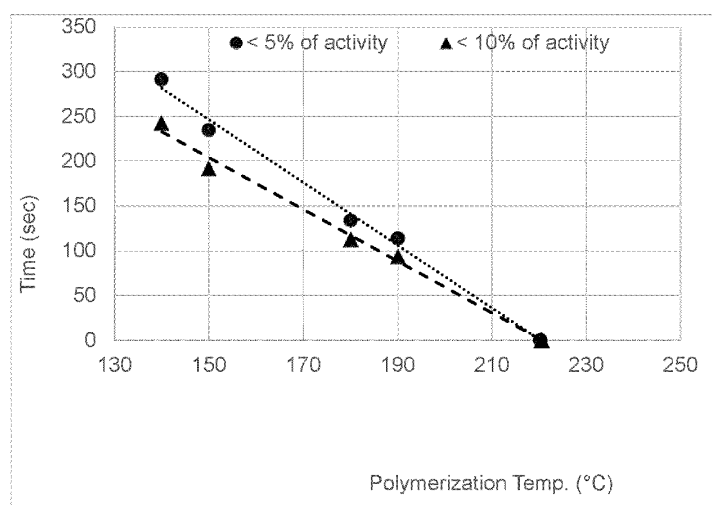
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(54) Title: PROCESS FOR THE POLYMERIZATION OF OLEFINS IN SOLUTION COMPRISING DEACTIVATING THE POLYMERIZATION CATALYST BY HEAT

Figure 1



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(57) Abstract: The present invention relates to a polymerization process, comprising: a) supplying a feed containing ethylene and at least one alpha-olefin having 3 to 12 carbon atoms in a hydrocarbon solvent to a polymerization reactor, b) contacting the feed of step a) in the reactor with a catalyst to form a reaction mixture containing an ethylene-alpha-olefin co-polymer, c) withdrawing the reaction mixture from the polymerization reactor as a reactor outlet stream which comprises the ethylene-alpha-olefin co-polymer, unreacted monomer and comonomer, catalyst, and hydrocarbon solvent, d) heating the reactor outlet stream to a temperature which is at least 5 °C higher than the temperature of the reaction mixture at the outlet of the reactor for a time period of between 1 and 250 seconds in order to de-activate the polymerization catalyst, and e) separating hydrocarbon solvent, monomer and comonomer from the reactor outlet stream and recycling it back to the polymerization reactor without further purification steps.

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