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(54) Title: POLYMERIZATION PROCESS FOR PREPARING POLYOLEFINS

(57) **Abstract:** A solution process for polymerizing one or more α -olefins of formula $\text{CH}_2=\text{CHR}$, where R is H or an alkyl radical C_{1-12} , to produce a polymer that is soluble in the reaction medium, the process comprising: (a) polymerization in a solution phase of one or more α -olefins in the presence of an organo-aluminum compound and a catalyst system comprising a transition metal compound as the catalyst component; (b) the polymeric solution obtained from step a) is then pressurized and transferred by means of a screw pump to a successive step for removing the unreacted monomers from the polymer; wherein the pumping capacity of said screw pump is kept constant by adding the polymeric solution with water at a feeding point upstream the screw pump.



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