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(54) Title: PROCESS AND APPARATUS FOR THE POLYMERIZATION OF PROPYLENE

(57) Abstract: A process for preparing heterophasic propylene copolymers by polymerizing propylene in the presence of a polymerization catalyst and hydrogen as a molecular weight regulator, the process comprising the following steps: a) polymerizing in gas- or liquid-phase propylene to prepare a crystalline polymer fraction; b) copolymerizing ethylene with propylene and/or 1 -butene, and optionally one or more alpha-olefin comonomers Cs-C12, in a gas-phase reactor having interconnected polymerization zones, wherein the growing polymer particles flow upward through a first polymerization zone (riser) under fast fluidization or transport conditions, leave said riser and enter a second polymerization zone (downcomer) through which they flow downward under the action of gravity.

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