

ABSTRACT

POLYMERIZATION PROCESS USING ZINC HALIDE INITIATORS

A cationic polymerization process for isoolefins using a zinc halide initiator. The zinc halide initiator is added to a solution of the isoolefin in a suitable solvent, preferably a halocarbon solvent. Polymerization reactions are normally conducted at temperatures high enough to allow the zinc halide initiator to dissolve in the solution. An alkyl halide activator may optionally be used and is preferably added to the solution prior to the zinc halide initiator. A multiolefin may optionally be present in the solution. The process is particularly useful in the formation of isoolefin homopolymers and co-polymers of isoolefins and multiolefins, such as butyl rubber.