

Title (en)

GEL-FREE PROCESS FOR MAKING FUNCTIONALIZED ANIONICALLY POLYMERIZED POLYMERS

Title (de)

GELFREIE VERFAHREN FÜR DIE HERSTELLUNG VON ANIONISCH POLYMERISIERTEN POLYMEREN MIT FUNKTIONELLEN GRUPPEN

Title (fr)

PROCEDE EXEMPT DE GEL POUR LA PREPARATION DE POLYMERES FONCTIONNALISES A POLYMERISATION ANIONIQUE

Publication

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Application

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Abstract (en)

[origin: WO9940121A1] The present invention relates to a process for making gel-free functionalized anionic polymers using multi-alkali metal initiators which comprises: anionically polymerizing at least one monomer with a multi-alkali metal initiator in a hydrocarbon solvent, capping the polymer by adding to the polymer a capping agent that reacts with the ends of the polymer chains such that strongly associating chain ends are formed wherein a strongly associating gel is formed, and adding a trialkyl aluminum compound to the gel. According to a further embodiment, the invention relates to a gel-free process for making functionalized anionic polymers using multi-alkali metal initiators which comprises: anionically polymerizing at least one monomer with a multi-alkali metal initiator in a hydrocarbon solvent, adding a trialkylaluminum compound before or during polymerization or before or at the same time as the capping agent, and capping the polymer by adding to the polymer a capping agent which, in the absence of the trialkylaluminum compound, would react with the polymer chain ends to form strongly associating chain ends wherein a strongly associating gel would be formed. Further aspects of the invention relate to a process for making functionalised polymer from unfunctionalised polymer; to a process for making functionalised polymer from polymers that are functionalised with a different functionality; and to a process for hydrogenating the polymers prepared by the above processes.

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