

Living Cationic Polymerization of Isobutylene

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This study concerns the truly living cationic polymerization of isobutylene, initiated by 2,5-diacetoxy-2,5-dimethyl-3-hexene/ BCl_3 combination in methylene chloride at -30°C .

The living nature was demonstrated by linear \overline{M}_n versus g polymer yielded plots. The molecular weight of resulting polymer obeys the ratio of monomer and acetate- BCl_3 concentrations. Thus, it has been concluded that termination and chain transfer are absent and the initiation is quantitative and faster than the propagation.