

عنوان مقاله:

Synthesis and Characterization of GAP-PCL-GAP Copolymers as for energetic binder

محل انتشار:

یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

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خلاصه مقاله:

The poly caprolactone(PCL) was synthesized used as macro- initiator in cationic ring opening polymerization of epichlorohydrin(ECH) in the presence of Stannous octanoate [Sn(Oct)₂] as catalyst. In first step of PECH- PCL-PECH triblock copolymer was synthesis and verified by IR, ¹HNMR, ¹³CNMR and GPC, then in the second step conversion of CH₂Cl groups to CH₂N₃ give the corresponding GAP-PCL-GAP energetic triblock copolymer. This new triblock copolymer was characterized by, IR, ¹HNMR, and ¹³CNMR spectroscopy. Thermal behavior of corresponding polymer was characterized by differential scanning calorimetry (DSC) and thermogravimetric analysis (TGA results showed that GAP-PCL-GAP copolymers has lower glass transition temperature (-65 °C), high degradation (temperature (205 °C) and narrow degradation temperature than glycidyl azide polymer (GAP

کلمات کلیدی:

Energetic copolymer; Copolymer GAP-PCL-GAP; Triblock; Binder

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