عنوان مقاله:

Effects of comonomer content on thermal stability of insitu polymerized POM

محل انتشار:

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

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Polyoxymethylene (POM) is an engineering plastic with unique properties such as chemical resistance that has poor thermal stability. Therefore by using comonomer the thermal stability of POM will be improved. In this study insitu cationic copolymerization of 1, 3, 5-trioxane (TOX) as monomer and 1, 3-dioxolane (DOX) as a comonomer in presence of phosphotungstic acid as a catalyst during reactive melt blending toward POM was investigated. POM samples were characterized by FTIR to study the chemical structure, DSC for investigation of the crystallinity and, TGA to study the thermal degradation were carried out. Test results shows that copolymer sample (TOX / DOX: 95/5 composition) had greater thermal stability than the others

کلمات کلیدی:

Polyoxymethylene,reactive blending ,1,3,5-trioxane(TOX), 1,3-dioxolane(DOX), phosphotungstic acid