عنوان مقاله:

Thermal Stability and Flame-Retardancy of Poly(ethylene terephthalate) in Presence of Phosphorous Based Flame Retardant

محل انتشار:

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

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Commercially available several types of phosphorous flame retardants (FRs) for polyester were compared from the viewpoint of chemical reactivity, reaction mechanism, and byproduct formation that one of those is 3-(Hydroxyphenyl phosphinyl) propanoic acid (HPP). In this research, flame retardant poly(ethylene terephthalate) (FR PET) synthesis is studied in the presence of antimony trioxide (Sb2O3) as catalyst and HPP as flame retardant additive in a PET pilot plant. The effect of HPP on the flame retardancy of final produced FR PET has been investigated. HPP values Utilization (lower than 5%(% mol)), according to limiting oxygen index test (LOI) results, had excellent effect on the flame retardancy properties of final produced FR PET in compared with general PET

کلمات کلیدی:

poly(ethylene terephthalate), copolymerization, flame retardant PET, LOI