

عنوان مقاله:

In Vitro enzymatic degradation of PLA/layered silicate nanocomposites

محل انتشار:

دهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1391)

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خلاصه مقاله:

Poly (Lactic acid) (PLA) is linear aliphatic thermoplastic polyester which is popular for its biodegradability and biocompatibility. This plant based polymer is synthesized from Lactic acid monomer produced by fermentation of renewable sources such as corn, sugar, beet and other starch rich products. The enzymatic degradation of PLA can be influenced by chain stereochemistry and material crystallinity [1]. Introducing inorganic material such as hydroxyapatite [2] and clay nanopowder can also affect on crystallinity and in turn biodegradability of this plant based polymer. In this research work effects of introducing organically modified layered silicate nanopowder on enzymatic degradation of unirradiated and irradiated PLA is investigated

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