عنوان مقاله:

Effect of Organoclay on the Abiotic Degradation of LDPE/ EVA Film containing Calcium Stearate

محل انتشار:

پنجمین کنگره بین المللی نانو و فناوری نانو (ICNN2014) (سال: 1393)

تعداد صفحات اصل مقاله: 3

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خلاصه مقاله:

Conventional polymeric materials accumulate in the environment due to their low degradability. The effectof organoclay (OC) on the abiotic degradation of low density polyethylene (LDPE)/ ethylene-vinyl acetate (EVA)containing calcium stearate (LDPE/EVA/oxo) film has been studied. The films were subjected under ambient conditions,ultraviolet light irradiation and air-oven aging tests (at 70°C) for extended time periods. The progress of degradation wasfollowed by monitoring the chemical changes of the samples using fourier transform infrared spectroscopy (FTIR) andcalculating carbonyl index. FTIR and carbonyl index results have shown that the presence of clay which is used toenhance mechanical, thermal and barrier properties of LDPE/EVA/oxo film does not influence the abiotic oxidationmechanism, significantly.

کلمات کلیدی:

Low Density Polyethylene (LDPE) ; Ethylene-Vinyl Acetate (EVA) ; Pro-oxidant ; Abioticoxidation ; Organoclay