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Morphology and thermal behavior of blends and nano blends based on poly (styrene-co-allyl alcohol) / Cellulose acetate butyrate and an organically modified Magnhia bentonite.

Blends and nano blends based on an organically modified bentonite, from Maghnia Algeria (OBT) (1,5 and 3 % by weight) and poly (styrene-co-allyl alcohol) (PSAA) containing 40 mol % of allyl alcohol and of Cellulose Acetate Butyrate (CAB), were elaborated via solution intercalation method and characterized by several techniques such as Fourier transform infrared spectroscopy (FTIR) and Scanning Electron Microscopy (SEM). The miscibility of these blends was studied by Fourier transform infrared spectroscopy (FTIR) and differential scanning calorimetry DSC. Thermal analyses (TGA) confirmed a significant improvement of thermal stability of these nanocomposites compared to the virgin blend.

Preferred topic

Biopolymers

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