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عنوان مقاله:

Mechanical, Morphological, and Thermal Properties of Graphene-Based PP/NBR Nanocomposites

محل انتشار:

دوازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1395)

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خلاصه مقاله:

Thermoplastic elastomers (TPEs) have received enormous attention for their use in many areas, such as the electrical and automotive industries and medicine, during the past few decades. A thermoplastic elastomer (TPE) nanocomposite based on polypropylene (PP), acrylonitrile–butadiene rubber (NBR), and a graphene (G) was prepared in a laboratory mixer. The effects of graphene on the thermal properties, mechanical properties, and phase morphology of the TPE nanocomposite were studied in this work. TEM images verify that the majority of graphene are basically fully exfoliated into polymeric matrix. Mechanical results showed that, increasing of NBR weight fraction, leads to significant drop in the mechanical strength and Young's modulus. It have been shown that with addition of graphene, Tc would be increased

کلمات کلیدی:

nanocomposites, poly(propylene) (PP), acrylonitrile–butadiene rubber (NBR), graphene

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