عنوان مقاله:

Effect of functionalized and unfunctional SWNT on morphology and mechanical properties of NBR/PVC blends

محل انتشار:

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

تعداد صفحات اصل مقاله: 1

نویسندگان:

Armin Hajibaba - *Isfahan University of technology, P.O. Box: 84156-83111, Isfahan, Iran*

Ghasem Naderi - *Iran polymer and Petrochemical Institute, P.O. Box: 14965- 115, Tehran, Iran*

Mirhamidreza Ghoreishy - *Iran polymer and Petrochemical Institute, P.O. Box: 14965- 115, Tehran, Iran*

خلاصه مقاله:

NBR/PVC blends are physical mixtures with wide commercial importance [1]. The objective of the incorporation of the fillers in polymers is to improve of physical, thermal andmechanical properties, as well as the processing characteristics and also cost reduction of the final product. Carbon nanotubes(CNTs) are nano fillers of choice for the conception of composites because of their exceptional thermal, mechanical and electrical properties [2]. Even if their physical propertiesare impressive, it appears difficult to obtain the expected reinforcement by their incorporation within polymericmatrices. Cassagnau et al. [3] proposed that for improvement the dispersion of CNTs in polymer matrices, differentexperimental methods have been investigated and mainly relyupon two strategies involving either the formation of covalent bonds or establishment of non-covalent interactions betweenthe polymer chains and nanotube surface. Surface and extremity functionalization most of the time enhance thequality of the nanotube dispersion using these physical methods.

کلمات کلیدی: