

عنوان مقاله:

Amine functionalized Graphene/polydimethylsiloxane/polyisoprene nanocomposite

محل انتشار:

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خلاصه مقاله:

The objective of this research is to fabricate amine functionalized graphene composites based on polydimethylsiloxane (PDMS)/polyisoprene (PI) and to characterize the gauge factor of the composites for the use of strain sensors. The fabrication of amine functionalized graphene /PDMS/PI composites can be accomplished by simple sonication and micro molding processes. We found that the measured gauge factors strongly depend on the concentration of amine functionalized graphene in the composites. Obtained gauge factor of the amine functionalized graphene/PDMS/PI composite strain sensor reached about 242 at a amine functionalized graphene concentration of 2.37 vol.%, which was measured within a strain range of 2%.

کلمات کلیدی:

Amine functionalized graphene; polydimethylsiloxane; nanocomposite; gauge factor; strain sensor

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