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High-performance graphene-based carbon nanofiller/polymer composites for piezoresistive sensor applications

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Abstract

Poly(vinylidene fluoride) (PVDF) composites with different carbonaceous nanofillers, prepared by solution casting, were studied their chemical, mechanical, electrical and electro-mechanical properties evaluated. Few-layer graphene (FLG) nanoplatelets (G-NPL), graphene oxide (GO) and reduced graphene oxide (rGO) and single-walled carbon nanohorns (SWCNH)) were found to have a strong influence in the overall properties of the composites prepared with up to 5 wt% nanofiller contents. The mechanical strain of carbonaceous

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