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Abstract

Hexylamine (HA) functionalized reduced graphene oxide (RGO-HA) was prepared via the modification of graphene oxide (GO) with HA, followed by reduction with hydrazine hydrate. The structure of RGO-HA was confirmed using various characterization techniques. RGO-HA was easily dispersed in several organic solvents due to its hydrophobic nature. Accordingly, RGO-HA/polyurethane (PU) composites were synthesized using different amounts of RGO-HA for their potential application in the field of barrier materials. Fourier-transform infrared spectroscopy (FTIR), wide angle X-ray diffraction (WAXS) analysis, and field emission

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