

عنوان مقاله:

Comparing the reduction quality of graphene oxide with oxalic acid and sodium borohydride

محل انتشار:

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خلاصه مقاله:

Graphene is a two dimensional material which carbon atoms arranged in hexagonal lattice in it with very strong covalent bond and because of its very specific mechanical, electrical and thermal properties and also low density and vary large surface area attracted many researchers in last decade. In this research graphene oxide (GO) was synthesized by simple Hummer's method and reduced with sodium borohydride (NaBH_4) and oxalic acid and their properties were compared. For characterization of samples X-ray diffraction, Raman spectroscopy, FT-IR spectroscopy, UV-vis spectroscopy and TG analysis were used. The results showed that the quality of reduced graphene oxide with NaBH_4 (rGO- NaBH_4) is better than reduced graphene oxide with oxalic acid (rGO-oxalic acid).

کلمات کلیدی:

graphene, graphene oxide, two dimensional materials, chemical synthesis

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