

عنوان مقاله:

Preparation of Graphene-Zinc oxide Nanocomposite and investigation of its photocatalytic properties

محل انتشار:

همایش ملی نانو فناوری و شیمی سبز (سال: 1391)

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خلاصه مقاله:

In this study, graphene/ zinc oxide nanocomposite was prepared via a chemical functionalization method by using graphene oxide (GO) as a precursor of graphene and $\text{Zn}(\text{NH}_3)_4\text{CO}_3$ as a precursor of zinc oxide. Thermogravimetric analysis, X-ray diffraction (XRD), fourier transform infrared spectroscopy (FT-IR) and scanning electron microscope (SEM) were used to characterize crystal structure and morphology of the functionalized graphene sheets FGS/ZnO nanocomposites. It was shown that the well-dispersed ZnO nanoparticles were deposited on FGS homogeneously. The composites exhibited photocatalytic activity efficiently under low-power ultraviolet (UV) light. This facile and low-cost method makes the composite a perfect candidate in applications of catalysis and other areas.

کلمات کلیدی:

Graphene; ZnO Nanocomposites; photocatalytic property

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