Short Communication

Role of rGO on Structural, Optical, and Photocatalytic Properties of Cu₂O/rGO

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The composite photocatalysts composed of Cu₂O and reduced graphene oxide (rGO) were prepared using a simple chemical method. The SEM, XRD and Raman spectrum indicate that graphene is well loaded to the surface of Cu₂O. The UV-vis DRS spectra results reveal that the Cu₂O had absorbed more visible light by recombination with graphene. The PL intensity of pure Cu₂O is decreased by the loading with rGO. The BET of pure Cu₂O is enhanced 3.6 times via the loading with rGO. The obtained Cu₂O/rGO composites exhibit higher photocatalytic activity that is 4.32 times larger than that of Cu₂O. The enhanced photocatalytic property of the rGO/ Cu₂O composites is ascribed to the increasing of charge transfer and specific surface area.

Keywords: Photocatalyst, Cuprous oxide, Graphene, Visible light

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