Short Communication

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

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doi: 10.20964/2017.01.05

Received: 8 September 2016 / Accepted: 12 October 2016 / Published: 12 December 2016

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

FULL TEXT

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