Short Communication

Graphene-Supported Silver Nanoparticles with High Activities toward Chemical Catalytic Reduction of Methylene Blue and Electrocatalytic Oxidation of Hydrazine

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doi: 10.20964/2016.11.72

Received: 27 June 2016 / Accepted: 7 September 2016 / Published: 10 October 2016

Reduced graphene oxide (RGO)/silver nanoparticle (Ag NP) composites (Ag/RGO) were prepared by a two-step route that involves chelating Ag NPs onto GO in the presence of *N, N*-dimethylformamide, followed by reduction with sodium borohydride. Ag NPs with an average diameter of 5.6 nm were found to be uniformly distributed on the surface of RGO sheets, and the resulting Ag/RGO composite exhibits good chemical catalytic behavior toward reduction of methylene blue and high electrocatalytic activity toward electrooxidation of hydrazine.

Keywords: Reduced graphene oxide, silver nanoparticles, chemical catalysis, electrocatalysis.

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