Co$_2$P/rGO Nanoybrids as Advanced Electrocatalysts for Hydrogen Evolution Reaction

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doi: 10.20964/2016.10.44

Received: 10 May 2016 / Accepted: 12 August 2016 / Published: 6 September 2016

We herein report a simple and efficient hydrothermal method to prepare Co$_2$P nanoparticles loading on reduced graphene oxide composites (Co$_2$P/rGO). The morphology and structure of Co$_2$P/rGO composites were characterized by a variety of techniques, including X-ray diffractometer (XRD), scanning electron microscopy (SEM), transmission electron microscopy (TEM) and Brunauer-Emmett-Teller (BET). The Co$_2$P/rGO composites were investigated as electrocatalysts for hydrogen evolution reaction (HER), which show an outstanding electrocatalytic performance for HER with a low over-potential and a small Tafel slope.

Keywords: Co$_2$P, graphene, electrocatalyst, Hydrogen evolution reaction

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