

Short Communication

Graphene Ink Fabricated Screen Printed Electrode for Cd²⁺ and Pd²⁺ Determination in Xiangjiang River

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doi: 10.20964/2016.09.38

Received: 16 June 2016 / Accepted: 11 July 2016 / Published: 7 August 2016

A disposable and sensitive screen-printed electrode constructed with an ink containing graphene was successfully prepared. Owing to the combination of the disposable characteristic of electrode and specific advantages of graphene, the as-prepared electrode demonstrated low background current, fast electron transfer kinetics and wide potential window. Screen-printed graphene electrode (SPG) exhibited excellent electrocatalytic activity in the simultaneous determination of Cd²⁺ and Pb²⁺. Moreover, the proposed SPG was also successfully employed for the determination of concentrations of Pb²⁺ and Cd²⁺ in Xiangjiang river in China.

Keywords: Graphene ink; Screen-printed electrode; Cd²⁺; Pd²⁺; Electrochemical sensor; Xiangjiang river

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