Graphene-TiO₂ Nanocomposite-Modified Screen-Printed Electrode for Sensitive Nitrite Determination in Hot Spring Water

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In the present work, a TiO₂/reduced graphene oxide (RGO) nanocomposite-modified glassy carbon electrode (GCE) served as a highly sensitive electrochemical platform for the determination of nitrite. A simple wet chemical method was used for the synthesis of RGO-TiO₂. The electrocatalytic behavior of our proposed sensor for the oxidation of nitrite was studied using cyclic voltammetry (CV) and amperometric methods. Furthermore, our proposed sensor has been successfully applied for the determination of nitrite in real hot spring water samples.

Keywords: Reduced graphene oxide; Nanocomposite; Sensor; Hot spring; Nitrite

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