Graphene Ink Modified Glassy Carbon Electrode as electrochemical sensor for Galantamine Determination

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In this study, commercial graphene ink has been used as a cost-effective modifier for glassy carbon electrode (GCE) surface modification. The excellent conductivity and defects triggered electrocatalytic property of the graphene ink showed a superior performance in electrochemical sensing. Galantamine, an alkaloid isolated from *Lycoris*, has been selected as an analyte for evaluating the graphene ink-modified GCE. A clear signal enhancement with reduction of overpotential was observed using a GCE after a simple graphene ink surface modification process. A linear detection range from 20 μM to 180 μM of galantamine was recorded on the proposed electrode with a low limit of detection of 4.1 μM .

Keywords: Graphene ink; Galantamine; Surface modification; Electrochemical sensor; Glassy carbon electrode

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