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Rapid and Sensitive Electrochemical Monitoring of Tyrosine Using NiO Nanoparticles Modified Graphite Screen Printed Electrode

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NiO nanoparticles was employed for the sensitive determination of tyrosine. The electrochemical response characteristics of the modified electrode toward the tyrosine was investigated by cyclic voltammetry (CV), chronoamperometry (CHA) and differential pulse voltammetry (DPV). The response of the electrochemical sensor for the tyrosine was found to be improved significantly in comparison with those obtained at graphite screen printed electrode (SPE). The oxidation peak current increased linearly in the range of 0.15-450.0 µM, with the detection limits of 0.1 µM.

Keywords: Tyrosine, NiO nanoparticles, Voltammetric sensor, Graphite screen printed electrode

FULL TEXT