
Synthesis, Characterization of Nano Structured Co doped Nickel Oxide for the Application Glucose Biosensor

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ABSTRACT

Glucose oxidase (GOx) has been immobilized onto sol-gel derived nano structured Chitosan (CH)-Co doped nickel oxide deposited on gold plate via physisorption. Characterization of Co doped nickel oxide nanomaterial carried out using X-ray diffraction (XRD), FTIR, UV-Visible spectrometry. Electrochemical studies reveals that nanostructured CH-Co doped NIO provides electro active surface for embedding GOx and enhance electron transfer rate in the GOx/CH-Co doped NiO / Au bioelectrode. The observed results show application of CH-Co doped NiO for biosensing in future without any functionalization.