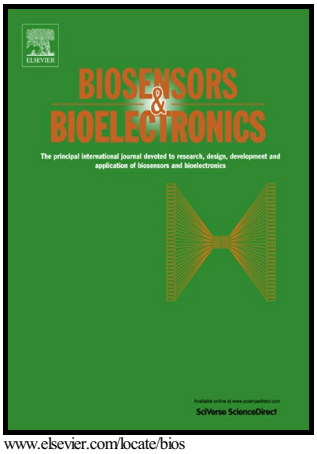

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ABSTRACT

We are reporting a novel biosensing platform based on a hybrid nanomaterial that combines the advantages of Nafion-coated multiwalled carbon nanotubes (MWCNTs) and mesoporous silica MCM41 nanoparticles functionalized with hemoglobin (Hb). MWCNTs-MCM41-Hb hybrid bioconjugate was characterized by scanning electron microscopy (SEM), UV-vis spectroscopy and electrochemical techniques after deposition at glassy carbon electrodes (GCE). The combination of the high surface area, biocompatibility