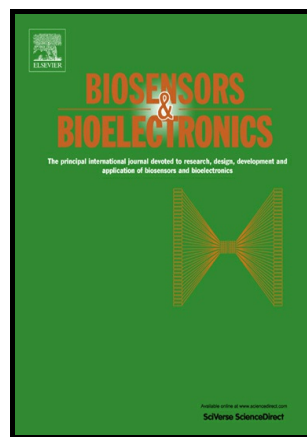


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# One-pot loading high-content thionine on polydopamine-functionalized mesoporous silica nanosphere for ultrasensitive electrochemical immunoassay

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## Abstract

A thionine (TH)-doped mesoporous silica nanosphere (MSN)/polydopamine (PDA) nanocomposite was synthesized for developing a new signal transduction strategy of electrochemical immunoassay. This nanocomposite was synthesized through one-pot loading of TH and in situ formation of PDA-coating on MSN. After antibody labeling, the obtained nanoprobe was used for the signal tracing of sandwich immunoassay at a magnetic bead-assay platform. Based on the specific capture of the MSN-TH/PDA nanoprobe through sandwich immunoreaction to form a magnetic immunocomplex and

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