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Electrochemical sensing of methyl parathion on magnetic molecularly imprinted polymer

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Abstract

The electrochemical detection of methyl parathion in fish was performed by preconcentrating the pesticide on magnetic molecularly imprinted polymer and further readout on magneto-actuated electrode by square wave voltammetry. The magnetic molecularly imprinted polymer was synthesized by a magnetic core-shell strategy, using methacrylic acid as a functional monomer, and selected by theoretical calculation using the density functional theory (DFT). The characterization of this material was performed by SEM, TEM and XRD. Moreover, the binding capacity and selectivity towards methyl parathion was studied and compared with the corresponding magnetic Download English Version:

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