An Electrochemical DNA-Hybridization Assay for *Acinetobacter baumannii* Detection

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The present paper reported the analysis of the *Acinetobacter baumannii* using an electrochemical biosensor fabricated based on a gold electrode (AuE) with the electroactive label of β -cyclodextrin (β -CD). Due to the formation of an Au–S bond, a thiol decorated single-stranded DNA probe was covalently immobilized onto the electrode surface. For the working mechanism of differential pulse voltammetry (DPV) on the DNA hybridization, the electrochemical signals of the β -CD binding reduction to the double-stranded DNA (ds-DNA) were recorded. Moreover, the as-prepared biosensor has the potential of being used for the analysis of *Acinetobacter baumannii* in excrement specimens.

Keywords: DNA; *Acinetobacter baumannii*; Gold electrode; β -cyclodextrin; Differential pulse voltammetry

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