Mini review

Progress in Nanomaterials-based Electrochemical Biosensors for Beta-amyloid Peptides as the Biomarkers of Alzheimer's Disease

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Alzheimer's disease (AD) have affected the older population worldwide through the rapid decline in cognitive impairment. Mounting evidence suggest that beta-amyloid peptide (A β) and its derivatives are closely related to the emergence and growth of AD. Thus, the specific and sensitive detection of A β species have an important role in the early diagnosis of AD. Electrochemical method is a promising candidate for bioassays. The current review mainly focuses on the development of nanomaterials-based electrochemical biosensors for A β species in the past decades. We cover the comprehensive utilization of nanomaterials in biosensor construction as the electrode substrate and signal reporters.

Keywords: Alzheimer's disease; beta-amyloid peptide; electrochemical biosensor; nanomaterials

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