Mini review

Design and Applications of Ratiometric Electrochemical Biosensors

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doi: 10.20964/2019.06.74

Received: 9 March 2019 / Accepted: 12 April 2019 / Published: 10 May 2019

Electrochemical biosensors have been used in the fields of disease diagnosis, environmental monitoring, and food safety. However, the traditional electrochemical biosensors have some shortcomings, such as poor stability and reproducibility. Ratiometric electrochemical biosensors can eliminate the potential interference, provide internal self-calibration, and improve detection sensitivity and selectivity. In this paper, the construction strategies for ratiometric electrochemical biosensors and their applications in biochemical analysis of proteins, nucleic acids, small biological molecules and metal ions are summarized.

Keywords: Ratiometric electrochemical biosensors; signal amplification

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