Mini Review

Electrochemical detection of neurotransmitter dopamine: a review

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Neurotransmitters monitoring with newly developed tools is a challenge. The quantification and identification of neurotransmitters by electrochemical sensors attracted the attention last years due to the need to provide high sensitivity and selectivity, real-time measurements, and quick response. This review focuses on current advances of different modified sensors used for dopamine (DA) detection. These advances are challenging due to similar redox potentials in real biological samples of high concentration and co-existing interfering species. The different materials description and their role in DA electrochemical detection were evaluated. Therefore, this review opens the door for researchers in neurobiomedical applications.

Keywords: Dopamine; Nanoparticles; Electrochemical sensors

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