Mini Review

Graphene Nanoribbons in Electrochemical Sensors and Biosensors: A Review

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Recently, graphene nanoribbons (GNRs) are narrow strips of graphene sheets with width in nanometers (<50 nm) and they are becoming attractive material in a variety of electrochemical applications owing to their outstanding electronic and catalytic properties. The most fascinating property of GNRs that distinguish them from other members of graphene family is their higher area-normalized edge-plane structures. In addition, GNRs have large surface area, high conductivity, residual oxygen functionalities, and accessible sites for catalysis, biocompatibility and good stability. Therefore, GNRs based nanomaterials are recently getting much popularity in electrochemically sensing and biosensing applications. In this review, we are presenting a summary of recent reports on GNRs based nanomaterials for electrochemical sensors and biosensors.

Keywords: Graphene, Layered nanomaterials, Electroanalytical chemistry, Electrochemical sensors and biosensors, Modified electrodes

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