Tentative Outline

Special Issue for Current Medicinal Chemistry

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Carbon nanomaterials based electrochemical sensor platforms in medical research areas

Aims & Scope:

Carbon nanomaterial based electrochemical sensors and biosensors have attracted considerable attention for the sensitive detection of a variety of organic compounds. Since the discovery of carbon-based nanomaterials, including carbon nanotubes and graphene, they have garnered tremendous interest for their potential in the design of high-performance electrochemical sensor platforms. Carbon nanomaterial-based electrochemical sensors have been generally employed for the determination of various analytes with rapid electron transfer kinetics. This review also provides an overview of recent carbon nanomaterial based sensors, comparing their analytical figures of merit for application in medical research. In the present review, the literature concerning the construction of sensors and biosensors based on carbon nanomaterial (CNTs, graphene and carbon related materials) based electrochemical sensors are critically updated, for the determination of various analytes reported in medical or clinical research areas.
Topics to be covered (main bioactive component):

- Carbon nanomaterial based electrochemical sensors
- Sensitive detection of a variety of organic compounds
- Discovery of carbon-based nanomaterials, including carbon nanotubes and graphene
- Determination of various analytes with rapid electron transfer kinetics
- Recent carbon nanomaterial based sensors, comparing their analytical figures of merit for application in medical research
- Determination of various analytes reported in medical or clinical research areas

Keywords:

Carbon nanomaterial, electrochemical sensors, biosensors, carbon nanotubes, graphene.

Schedule:

August 2018.