

Special Issue

Nanotechnology-Based Electrochemical Biosensors

Message from the Guest Editor

In the diagnostic field, nanotechnology-based electrochemical biosensors are used to detect biomarkers related to several diseases. However, the majority of biomarker diagnostic testing is not performed at the point-of-care (POC); rather, it is conducted in centrally located facilities that are far away from the patient care site because these facilities have the required tools and personnel. This results in an increase in waiting times and testing costs.

Nanomaterial-based biosensors have strength, repeatability, and sensitivity, which, when combined with their small size, large surface area, and interfaces, have proved to be quite advantageous. Moreover, they offer new immobilization structures with improved aspects, significant electrical conductivity, and a greater number of biomolecules per area/volume. Thus, nanomaterials will play a crucial role in the fabrication of an ideal point of care application of electrochemical biosensors. The aim of this Special Issue is to collect novel electrochemical biosensors based on nanotechnologies for biomarker monitoring in different research fields.

Guest Editor

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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