Special Issue

Nanotechnology for Biosensors and Bioelectronics Applications

Message from the Guest Editors

Since 2000, advances in nanotechnology have led to rapid developments in the field of biotechnology, medicine and pharmacy. The introduction of a variety of nanomaterials to biosensors and bioelectronic devices has attracted substantial research efforts because of their tremendous characteristics, including the physical, chemical, electrical and electrochemical properties of nanoparticles. In addition to the use of nanomaterials, biosensors and bioelectronics can improve the sensitivity, selectivity, response time and biocompatibility. This Special Issue aims to compile a set of original research papers and review papers representing part of the depth of current research on recent advances in biosensors and bioelectronics based on nanomaterials. Here, we cordially invite you to contribute original research papers aligned with these themes, in order to advance and improve the state-of-the-art in nanoparticle-based biosensors and biomedical devices that lead to new opportunities, approaches and solutions to next-generation biomedical application and novel biosensor challenges.

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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.

Editor-in-Chief

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