Special Issue

Nanomaterials for Biosensing and Bioelectrochemistry

Message from the Guest Editor

This Special Issue is focused on the controllable fabrication of nanomaterials and biomolecule-driven NP assemblies, as well as the study of the optical and electrochemical properties of functional nanomaterials, such as chirality, fluorescence surface, enhanced Raman resonance (SERS), and electrochemical oxidation or reduction signals. The importance of nanomaterials in enabling sensitive and selective detection of biological analytes is highlighted, showcasing their potential for revolutionizing diagnostic and monitoring technologies. The applications of these functional nanomaterials should also be included in the detection of disease biomarkers and hazardous substances (DNA, toxins, heavy metal ions, and so on) in food and cosmetics. Moreover, the innovative use of nanomaterials in biosensing and bioimaging opens up exciting possibilities for advancements in medical diagnostics and imaging technologies. The research presented in this Special Issue provides valuable insights into the cutting-edge developments in nanotechnology and its potential to revolutionize various industries.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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