Special Issue

Future Nanoparticles: Focus on Sensors and Bio-Applications

Message from the Guest Editor

This Special Issue, *Future Nanoparticles: Focus on Sensors and Bio-Applications*, highlights cutting-edge research at the intersection of nanoparticle biomedical diagnostics with a central focus on challenging diseases biomarkers like inflammatory diseases, pain disease, cancer, and cardiovascular, respiratory, and neurodegenerative diseases by using various theragnostic tools. Nanoparticles represent a transformative tool in sensor technology, offering unprecedented sensitivity, specificity, and versatility in detecting environmental contaminants and biomolecules. This collection of articles delves into novel polymer, metal nanoparticle-based synthesis. Moreover, the issue addresses critical challenges with their future perspectives into healthcare solutions. By showcasing cutting-edge research and innovative applications, this Special Issue aims to inspire future developments in nanoparticle-enabled biosensors, paving the way for impactful contributions to healthcare diagnostics.

Guest Editor

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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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