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Nanomechanical and Optical Biosensors

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Message from the Guest Editors

Nanomechanical and optical biosensors have been demonstrated to be powerful and promising tools for biosensing due to their small size, fast response, high sensitivity, and compatible integration into point-of-care (POC) devices. Advances in nanofabrication technologies and nanomaterials has enabled the achievement of smaller transducers with improved analytical performances (e.g. shorter response times, larger dynamic ranges, and unprecedented sensitivities).

The aim of this Special Issue is to report recent advancements in nanoscience and nanotechnology leading to the new generation of nanomechanical, optomechanical, and optical biosensors for healthcare diagnostics, food quality control, and environmental monitoring. It is envisaged that this will cover a wide range of sensors, including nanomechanical, opto-mechanical, photonic, plasmonic, and optical biosensors that measure absorbance, reflectance, scattering, and/or fluorescence in the ultraviolet, visible, or near-infrared spectral region.



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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.

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