

Special Issue

Nanomaterials for Optical Bio/Chemical Sensing

Message from the Guest Editors

The recent surge in the development of functional nanomaterials has significantly increased the effectiveness of optical biosensors. Nanoscale materials offer high throughput, high sensitivity, rapid response time and compact features. Therefore, engineered nanomaterials can be employed to magnify the optical readout of low concentration bio/chemical molecules and biomarkers in the liquid or gaseous environments. Indeed, customised nanomaterials are one of the key tools to realise the next generation of ultra-sensitive sensors for medical diagnosis in the early stages of diseases development. This Special Issue aims to highlight the recent progress in the field of optical nanomaterials-based bio/chemical sensors, categorised by materials such as plasmonics, dielectrics and semiconductors, metamaterials, metasurfaces, 2D materials, hybrid nanoparticles, quantum dots, and nanopores.

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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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