Special Issue

Advanced Nanostructured Plasmonic Sensors

Message from the Guest Editor

Plasmonic sensors have emerged as powerful tools in optical sensing, leveraging the unique properties of surface plasmons to achieve highly sensitive, label-free detection of chemical and biological analytes. Since their inception, plasmonic sensors have evolved from simple metallic films to sophisticated nanostructured materials, benefiting from advances in nanofabrication, nanophotonics, and materials science. This Special Issue of *Nanomaterials* aims to provide a comprehensive platform for the latest advancements in nanostructured plasmonic sensors, spanning fundamental principles, material innovations, and practical applications. We seek to highlight interdisciplinary approaches that merge nanotechnology, optics, chemistry, and biomedical engineering to push the boundaries of plasmonic sensing technologies. This Special Issue will address key challenges in enhancing sensitivity, stability, and multiplexed detection while exploring emerging applications in healthcare, environmental science, and point-of-care diagnostics.

Guest Editor

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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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