

## Special Issue

# Nanomaterials in Advanced Sensing Technologies

### Message from the Guest Editors

Nanomaterials stand at the forefront of modern sensing innovation, driving a paradigm shift in sensitivity, selectivity, and miniaturization. The essence of utilizing nanomaterials in sensing lies in their unique physicochemical properties, such as high surface-to-volume ratios, quantum confinement effects, and tunable surface functionalities. At the heart of advanced sensing technology is the interaction between analytes and the nanostructured interface, which facilitates rapid electron transfer, enhanced optical responses, and superior catalytic activities. This Special Issue aims to publish high-quality papers that study the emerging important technologies in nanomaterial-based sensing. Research areas may include (but are not limited to) the following topics:

- Synthesis and functionalization of nanomaterials for sensing;
- Gas sensors based on metal oxide semiconductors;
- Electrochemical biosensors and immunosensors;
- 2D materials for advanced sensing;
- Optical and plasmonic nanosensors;
- Wearable and flexible sensing devices;
- Nanocomposites and hybrid materials for sensor applications;
- Sensing mechanisms and theoretical modeling.

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### Guest Editors

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### Deadline for manuscript submissions

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## Nanomaterials

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## About the Journal

### 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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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### Editor-in-Chief

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