Special Issue

Advanced Nanomaterials and Nanotechnologies for Micro/Nano-Sensors

Message from the Guest Editors

Semiconductor electronics and photonics based on advanced nanomaterials and nanotechnologies have been the key driving force of micro/nano-sensors. Nowadays, with the development of high-speed data communication, the growing demand for micro/nano-sensors presents unprecedented opportunities and challenges. In the building of Smart Cities, micro/nano-sensors are the essential component of the Internet of Things (IoT) and encounter high demand for their categories, performance, application scenarios, etc. Various sensors are needed for different application fields, such as environmental pollution monitoring, hazardous chemical spill warning, early disease diagnosis, and healthcare reminders. The Special Issue seeks papers on chemical/biological sensors based on the electrical or optical properties of advanced novel nanomaterials. Authors are invited to submit articles focused on trace detection, selective enhancement, fast response, and other aspects. Papers on the characterization and evaluation of sensing performance or the completion of sensing mechanistic discussions of experimental phenomena will also be very well received.

Guest Editors

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Deadline for manuscript submissions

closed (20 January 2024)

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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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