Special Issue

Nanomaterials for Micro/Nano Sensing and Detecting Applications

Message from the Guest Editors

Micro/nano materials, innovative substances at the micrometer or nanometer scale, are revolutionizing sensor technology with their unique physical and chemical properties. Their high specific surface area and surface activity make them ideal for creating high-sensitivity sensors. These materials are extremely sensitive to environmental changes, capturing even minute fluctuations in temperature, gas concentration, and other physical or chemical parameters. Surface modification technology further enhances their selective recognition capabilities, enabling the accurate detection of target substances in complex environments. This efficiency and sensitivity make micro/nano materials stand out in fields such as environmental monitoring and industrial safety. Looking ahead, micro/nano sensors will continue to evolve, offering higher precision, lower power consumption, and smaller sizes, poised to transform fields such as environmental monitoring, healthcare, and marine resource development. We invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

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

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