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Scalable Fabrication Techniques for Nanostructures and Nanomaterials Facing Cutting-Edge Applications in Electronics, Energy, and Environment

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Deadline for manuscript submissions:
closed (30 April 2023)

Message from the Guest Editors

This Special Issue will focus on two novel fields. First, the invited papers can explore the relationship between scalable nanofabrication and precise manufacturing. They include functional devices that require the scalability of nanostructures, precision manufacturing is a growing market, and applications where the macroscopic manufacturing requires a manufacturing precision down to a sub-micrometer scale in either 2D surface engineering or 3D structure controls through additive manufacturing. Secondly, the invited papers will cover cutting-edge applications of nanofabrication and nanomaterials in electronics, energy, and the environment. These applications will be the driving force for the sustainable development of nanofabrication. We predict that nanofabrication will continue to be an important field for economic development and technological revolution through integrating modern precision manufacturing and addressing emergent applications in the aforementioned fields. Thus, the success of merging nanofabrication and precision manufacturing is contingent upon implementing functional devices based on nanofabrication and nanomaterials.

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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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