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Surface and Interface Properties of Low-Dimensional Nanostructures and Their Functionalization

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Message from the Guest Editor

Low-dimensional nanostructures and their physicochemical properties belong to the frontier crossover research field, which has great scientific significance and application prospects. Low-dimensional nanostructures have novel physical properties, such as quantum effect, size effect, and surface effect given by nanomaterials and structures, but they also can obtain more excellent physical properties and functions those traditional materials do not have, such as light, electricity, and magnetism through the design of high-dimensional geometries at macroscopic and microscopic levels.

This Special Issue covers but is not limited to the following topics: 1) surface and interfacial effects of low-dimensional nanostructures; 2) their applications in energy and environment; 3) their physical and chemical applications in electricity, mechanics, magnetism, optics, etc.; 4) their biomedical applications; and 5) mechanisms and physical properties of low-dimensional nanostructures and their device construction. Researchers in many of these interdisciplinary research areas are invited to contribute original full articles, communications, or comprehensive review articles of their latest works.



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Special Issue



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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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