Special Issue

Nanostructured Materials for Photonic and Plasmonic Applications

Message from the Guest Editors

Driven by the global wave of nanotechnology in the 1990s, nanomaterials such as semiconductor optoelectronic materials, magnetic materials, ceramic materials, and biomaterials have emerged. Since its size is close to the coherence length of the electron, its properties are greatly changed due to the strong coherence. Moreover, its scale is close to the wavelength of light, coupled with its large specific surface area. Therefore, the characteristics exhibited by nanomaterials are often different from the properties exhibited by the substance in its bulk state. The main characteristics of nanomaterials are manifested in the following aspects: surface effect, size effect, volume effect, and quantum effect. We are pleased to invite researchers to publish original and critical articles on photonics devices made of nanomaterials. Potential topics include but are not limited to: nanomaterial photodetectors, nanomaterial optical sensors, nanomaterial light modulators, nanomaterial lasers, nanomaterial holography, nanomaterial encryption, nanomaterial communication, nanomaterial wearability, nanomaterial therapy, nanomaterial localization, and nanomaterial tracking.

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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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