



Advancements in Plasmonic Nanophotonics: From Fundamentals to Applications

Guest Editor:

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Message from the Guest Editor

As a novel technique in the field of optics, surface plasmon resonance introduces a new avenue in the advancement of nanomaterials. By precisely adjusting the composition, morphology, and surrounding medium of nanoparticles, researchers can effectively modulate the plasmonic spectral response range of nanomaterials. The SPR-induced local electrical field enhancement, hot carrier generation, and plasmonic thermal effect can make significant differences in the behavior of light harvesting, fluorescence emission, optical scattering, etc. The development of plasmonic nanophotonics leads to a wide range of applications, including optical super-resolution imaging, display, biomedicine, photocatalysis, and so on.

This Special Issue aims to attract researchers from academia and industry to participate in this discussion, share their current knowledge of plasmonic nanomaterials, and provide new ideas for future applications and new technologies. Both reviews and original research papers that explore advances in plasmonic nanophotonics, from fundamentals to applications, will be included in this 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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