Special Issue

Advances in Photonic Metasurfaces and Metastructures

Message from the Guest Editor

This Special Issue aims to highlight recent advances in the areas of metastructures and plasmonics with particular emphasis on metasurfaces, subwavelength light localization, quasi-bound states and high-quality factor resonances, multipolar and resonant responses in nanostructures, and related topics. Special attention is given to research directions related to engineering scattering, topological nanophotonics and parity-time symmetry, novel nanofabrication techniques for improving material properties, and enhanced nonlinear and dynamic responses in the metastructures. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Mie resonances and multipole excitations;
- Bound and quasi-bound states in the continuum;
- Two-dimensional and layered materials;
- Plasmonic materials and metastructures based on them;
- Directional scattering, multipole coupling, and Kerker effect:
- Collective effects in metastructures;
- Applications of metasurfaces and plasmonics.

Guest Editor

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Deadline for manuscript submissions

closed (10 August 2024)



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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 nanometerscale 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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