Special Issue

New Trends in Metamaterials

Message from the Guest Editors

Metamaterials are materials engineered to have, e.g., optical, electrical, magnetic, mechanical, or chemical properties beyond their naturally occurring counterparts. The properties of metamaterials are, thus, not only derived from the properties of the base materials they are composed of, but also, in particular, from their micro- and nanofabricated structures. In this Special Issue, we welcome contributions concerned with any aspect of the fabrication, characterisation, and applications of metamaterials of any kind. Examples are electromagnetic metasurfaces with tailored electromagnetic responses, such as broadband absorbers, metalenses, chiral structures, nanophotonic and plasmonic devices, all-dielectric metasurfaces, hyperbolic metamaterials, mechanical metamaterials with anomalous mechanical behaviors such as a negative Poisson's ratio, and negative thermal expansion. Contributions on smart nano- and micromaterials that obtain their properties from their structure, e.g., photonic crystals and near-zero-index waveguides, are also welcome.

Guest Editors

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Prof. Dr. Andrei Lavrinenko

Prof. Dr. Rafael Taboryski

Deadline for manuscript submissions

closed (30 June 2023)



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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.

Editor-in-Chief

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