

Special Issue

Magnetics Meets Optics: Nanomaterials for Emerging Technologies and Applications

Message from the Guest Editors

Light, as an electromagnetic wave, possesses electric, and magnetic field components, along with degrees of freedom such as spin, angular momentum, frequency, phase, polarization, and intensity (thermal effects). These characteristics enable a myriad of physical mechanisms for interactions with both magnetic and optical materials, spanning from high to low dimensions, from macroscopic to nano- and even atomic scales, and across ultrafast timescales, significantly enriching both optics and magnetism. Light can alter magnetic properties, induce magnetism in non-magnetic systems, and control magnetic ordering states, leading to the emergence of diverse technologies and applications.

We are pleased to announce a special issue in the journal *Nanomaterials* titled "Magnetics Meets Optics: Nanomaterials for Emerging Technologies and Applications." This Special Issue will delve into the profound interplay between light and magnetism, exploring how electromagnetic waves facilitate a wide range of interactions with diverse magnetic/optical materials, particularly at the micro- and nanoscales. We are looking forward to your valuable contributions.

Guest Editors

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About the Journal

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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

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