

Special Issue

Nonlinear Optics and Ultrafast Lasers in Nanosystems

Message from the Guest Editor

In nanosystems, nanomaterials exhibit excellent nonlinear optical properties due to the size effect, interface effect, and the interaction between ultrafast lasers and materials, which makes them an ideal choice for optical modulation, optical switching, and other functional devices. Ultrafast laser technology enables the fast and accurate observation and control of dynamic behaviors in nanosystems, and it is widely used in fields such as spectroscopic analysis, dynamics research, and ultrafast photonics in nanomaterials. Despite significant progress, there are still many challenges in studying the nonlinear optical properties of nanomaterials. This Special Issue aims to showcase recent advances, unresolved issues, and cutting-edge results related to the innovative design and research progress of nonlinear optical nanomaterials. We encourage submissions of research and review articles that contribute to our understanding of this exciting and rapidly advancing field.

Guest Editor

Dr. Jiang Wang

School of Artificial Intelligence, Optics and Electronics, Northwestern Polytechnical University, Xi'an 710072, China.

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Nanomaterials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
nanomaterials@mdpi.com

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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

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of
Birmingham, Birmingham B15 2TT, UK

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