Special Issue

Research on the Optical, Electrical, and Thermal Properties and Applications of Hybrid Nanomaterials

Message from the Guest Editors

In last few years, scientific research has demonstrated that hybrid inorganic–organic materials are used in various areas of optoelectronics, including medicine, catalysis, mechanics, and the environment. They are used in devices such as luminescent diodes, solar cells, and lasers. Polymer/nanoparticle hybrids have different potential applications, enabled by varying material parameters, such as the concentration of nanoparticles and the way that they are placed inside a material. This particularly affects thermal transitions, such as the glass transition temperature, Tg, a basic parameter that determines the thermal stability of these materials, and the cold crystallization temperature, Tcc. The addition of nanoparticles also impacts conductivity or the value of the energy gap, Eg. Recent research has shown that adding metal nanoparticles or their oxides to a polymer matrix improves its properties significantly, lowering Eg and enhancing the conductivity of the material). We welcome the following:

- Review works.
- Regular research papers.
- Communications.

Guest Editors

Dr. Barbara Hajduk

Dr. Pallavi Kumari

Dr. Pawel Jarka

Dr. Sonia Kotowicz

Deadline for manuscript submissions

20 July 2026

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/240057

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

mdpi.com/journal/nanomaterials

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

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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