Special Issue

Recent Advances in Nanotechnology for Heat Transfer

Message from the Guest Editor

Nanotechnology has revolutionized heat transfer research by enabling unprecedented control over thermal energy at the nanoscale. This Special Issue, “Recent Advances in Nanotechnology for Heat Transfer”, seeks to showcase cutting-edge developments in nanoscale thermal transport. Topics of interest include, but are not limited to, the following:

- Novel nanomaterials (e.g., graphene, MXenes, superlattices) for enhanced thermal conductivity or insulation.
- Near-field thermal radiation and its applications in energy harvesting.
- Computational and experimental advances in many-body heat transfer at the nanoscale.
- Nanofluidics and phase-change materials for thermal management.
- Quantum effects and non-equilibrium thermodynamics in nanoscale systems.
- Advanced characterization of nanomaterial thermal properties, including thermal conductivity measurements

Guest Editor

Prof. Dr. Yong Zhang
School of Energy Science and Engineering, Harbin Institute of Technology, Harbin 250001, China

Deadline for manuscript submissions

15 January 2026

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/240767

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

mdpi.com/journal/nanomaterials

MDPI

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

MDPI

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.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones
School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)