Special Issue

Innovative Directions in Thermoelectric Materials: Development and Characterization Approaches in Nano-Scale

Message from the Guest Editors

This Special Issue aims to address a range of new material design strategies and approaches related to the development, engineering and characterization of advanced thermoelectrics in nano-scale, including nano-structuring, nano-materials, nano-composites, low-dimensionality strategies, band structure engineering, hierarchical phonon scattering, etc. Research topics may include (but not limited to) novel synthetic methods, emphasizing sustainable and environmentally friendly concepts, advanced characterization techniques, involving investigations in atomic-, nano-, and micro-structure, electrical and thermal transport property measurements as well as computational approaches. We look forward to receiving your contributions.

Guest Editors

Dr. Panagiotis Mangelis

Department of Mechanical and Manufacturing Engineering, University of Cyprus, 1678 Nicosia, Cyprus

Dr. António Pereira Gonçalves

Centro de Ciências e Tecnologias Nucleares (C2TN), Departamento de Engenharia e Ciências Nucleares (DECN), Instituto Superior Técnico, Universidade de Lisboa, Campus Tecnológico e Nuclear, 2695-066 Bobadela, Portugal

Deadline for manuscript submissions

20 February 2026



Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



mdpi.com/si/248008

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

mdpi.com/journal/

nanomaterials





Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



nanomaterials



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 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

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)