



## Advanced Methods for Studying Thermal Parameters (Thermal Conductivity and Temperature) at the Nanoscale

Guest Editor:

**Prof. Dr. Michal Pawlak**

Institute of Physics, Nicolaus  
Copernicus University, 87-100  
Toruń, Poland

Deadline for manuscript  
submissions:

**20 August 2024**

### Message from the Guest Editor

Dear Colleagues,

In this Special Issue, we would like to encourage authors to present their latest research on nanomaterials and heat; various types of articles are welcome, such as experimental (the lock-in-based method or classical approaches) and theoretical studies on nanomaterials such as nanodots, nanowires, superlattices, polymers, and ZnO-based materials. These studies should report on the nanomaterials' properties (thermal conductivity, thermal diffusivity, thermal boundary resistance, temperature, heat capacity) as well as the development of the measurement methods used (such as photothermal infrared radiometry, thermoreflectance, photothermal beam deflections, and luminescent thermometry). A particularly important aspect of this Special Issue is the comparison of experimental data with the results of theoretical work; therefore, both types of work are welcome. We also encourage papers describing new materials, and new research methods for measuring temperature and thermal conductivity, thermal diffusivity, and thermal boundary resistance at the nanoscale. Papers on improving existing methods are also welcome.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Shirley Chiang**

Department of Physics, University  
of California Davis, One Shields  
Avenue, Davis, CA 95616-5270,  
USA

## 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.

## 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 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (General Chemical Engineering)

## Contact Us

---

*Nanomaterials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](https://x.com/nano_mdpi)