



## Thermophysical and Tribological Properties of Nanomaterials

Guest Editors:

**Prof. Dr. Md Abdul Maleque**

Advanced Materials & Surface  
Engg. Research Unit, Faculty of  
Engineering, International  
Islamic University Malaysia, Kuala  
Lumpur, Malaysia

**Prof. Dr. Md Mustafizur  
Rahman**

Faculty of Mechanical and  
Automotive Engineering  
Technology at Universiti Malaysia  
Pahang, 26000 Pekan, Pahang,  
Malaysia

Deadline for manuscript  
submissions:

**closed (10 November 2023)**

### Message from the Guest Editors

Recent studies on the thermal properties of nanomaterials have found that such materials are relevant to many applications, including thermal and tribology. This has attracted the research community to study the introduction of matrix materials or lubricants to nanomaterials or nanoparticles to enhance their thermophysical and tribological properties; these attempts are termed as nanotribology. The wide scope of nanomaterials research ranges from the development of nanophase change materials, nanolubricants, friction modifier, and anti-wear properties of nanomaterials to the synthesis and characterization of such materials for a wider range of applications. Thus, this Special Issue focuses on the “Thermophysical and Tribological Properties of Nanomaterials” in order to provide a dedicated platform to put forward recent ideas and findings in this particular area of research. The scope of this Special Issue will cover the synthesis and characterization of various nanomaterials and applications relevant to wear, friction, and lubrication (known as tribology) with regards to their thermophysical and tribological properties.





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

## Contact Us

*Nanomaterials* Editorial Office  
MDPI, St. Alban-Anlage 66  
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](#)