



## The Interaction of Electron Phenomena on the Mesoscopic Scale

Guest Editors:

**Dr. Kai Chen**

School of Physics, Nanjing  
University of Science and  
Technology, Nanjing, China

**Prof. Dr. Laijun Liu**

College of Materials Science and  
Engineering, Guilin University of  
Technology, Guilin, China

Deadline for manuscript  
submissions:

**10 June 2024**

### Message from the Guest Editors

Dear Colleagues,

“More is different”. Interacting electrons on the mesoscopic scale present emerging phenomena of multi-body systems in condensed matters. The Special Issue covers cutting-edge studies on the mechanics, thermology, optics, electricity, and magnetism of nanomaterials. These studies include not only novel phenomena in new nanomaterials, but also fundamental phenomena in the “old” ones.

We hope that the Special Issue will shed light on the theoretical limitations of weak, medium, and strong interactions among electrons, and, importantly, provide insights on the future development of material synthesis methods, structural and property characterizations, and scientific strategies.

See more information in: <https://www.mdpi.com/si/190190>

Dr. Kai Chen

Prof. Dr. Laijun Liu

*Guest Editors*





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](#)