



an Open Access Journal by MDPI

Development and Application of Novel Characterization Techniques for Magnetic Materials and Devices at the Nanoscale

Guest Editors:

Prof. Dr. Zi'an Li

School of Physical Science and
Technology, Guangxi University,
Nanning, China

Dr. Thomas Feggeler

Department of Physics, University
of California, Berkeley, CA, USA

Deadline for manuscript
submissions:

10 September 2024

Message from the Guest Editors

Dear Colleagues,

In recent decades, the fundamental understanding of static and dynamic magnetic processes at the nanoscale has improved. We have seen progress in the development of novel techniques for nanoscale magnetic characterization with ultrahigh spatial, temporal, and energetic resolutions. Notably, ultrafast laser technologies combined with X-ray- and electron-based pump-probe approaches have made fast strides. Therefore, a summary and collections of the current status of technologies and respective applications of nanoscale magnetic materials devices are highly valued.

This Special Issue focuses on the theoretical developments and practical applications of magnetic characterization techniques that have been successfully established and applied on various nanoscale magnetic materials and devices. We aim to attract both academic and industrial researchers in order to pool the current knowledge of nanoscale characterization of nanomagnetism and to present new ideas for future application and new technologies for advancing nanomagnetism research.

See more information in: <https://www.mdpi.com/si/149679>

Prof. Dr. Zi'an Li

Dr. Thomas Feggeler

Guest Editor



[mdpi.com/si/149679](https://www.mdpi.com/si/149679)

Special Issue



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

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](https://x.com/nano_mdpi)