Special Issue

Magnetic Nanoparticles and Nanocomposites for Biomedical Applications

Message from the Guest Editors

This Special Issue will highlight cutting-edge advances in the development and application of multifunctional magnetic nanoparticles. Topics include material innovations, synthesis, surface functionalization strategies, performance optimization, integrated diagnosis and treatment strategies, and the integration of magnetic hyperthermia with other therapeutic methods. We aim to investigate the distinctive properties of novel magnetic materials for biomedical applications. We invite original research articles on, but not limited to, the following:

- Novel magnetic nanomaterials for hyperthermia, drug delivery, MRI diagnosis, and photothermal therapy
- Mechanisms of magnetothermal conversion, photothermal conversion, and targeted drug delivery
- Numerical simulations of magnetic properties, micromagnetic simulations, temperature field optimization in hyperthermia, and drug delivery system modeling
- Multi-technology integration, such as combining magnetic hyperthermia with other cancer treatments and controlled drug release
- Clinical application challenges, including material safety, biocompatibility, and regulatory considerations

Reviews and original research articles are encouraged.

Guest Editors

Prof. Dr. Wei Zhang

Department of Engineering Mechanics, Dalian University of Technology, Dalian 116024, China

Dr. Xiaogang Yu

1. Department of Engineering Mechanics, Dalian University of Technology, Dalian 116024, China
2. School of Mechanical and Electrical Engineering, Xinyu University, Xinyu 338004, China

Deadline for manuscript submissions

25 July 2026

Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.6

mdpi.com/si/250185

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

mdpi.com/journal/magnetochemistry

Magnetochemis

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.6

mdpi.com/journal/magnetochemistry

About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Carlos J. Gómez García
Department of Inorganic Chemistry, Faculty of Chemistry, University of Valencia, C/Dr. Moliner 50, 46100 Burjasot, Spain

Author Benefits

High Visibility:
indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:
JCR - Q2 (Chemistry, Inorganic and Nuclear) / CiteScore - Q2 (Electronic, Optical and Magnetic Materials)

Rapid Publication:
manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).