

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

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About the Journal

Message from the Editor-in-Chief

Magnetochemistry constitutes a multidisciplinary field where chemists and physicists not only study magnetic properties but also design and synthesize chemical compounds with desired magnetic properties.

Magnetochemistry is inviting contributions in any field related with this area, such as theoretical models, crystal engineering, molecular magnetism, SMM, SIM, SCM, SCO, magnetic nanostructures, magnetic MOFs, magnetic recording, qubits, magneto-caloric materials, etc. Our goal is to share your contribution in a timely fashion and in a manner that will be valued by the scientific community.

Editor-in-Chief

Prof. Dr. Carlos J. Gómez García

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.9 days after submission; acceptance to publication is undertaken in 3.5 days (median values for papers published in this journal in the second half of 2025).