Special Issue

Fabrication, Characterization and Application of Magnetic Thin Films

Message from the Guest Editor

The interplay of spin, charge, and the lattice in quantum materials provides a rich playground for physics research. Thin films comprising such materials can tune these properties through interface engineering. This has been enabled through the technology in fabricating these materials and the development of probes. This led to significant technological advancements, such as the discovery of giant magneto-resistance and perpendicular anisotropy. In addition, research in thin films has also led to developments in magnetism, such as skyrmions. Other developments include influencing magnetism by injecting currents through spin-orbit torque or using electric fields by artificially combining materials that have ferromagnetic and ferroelectric properties. There is also a drive to develop functional antiferromagnet films to take advantage of the higher THz frequency dependence and zero-stray field advantages. This Special Issue aims to showcase the most recent advances in this exciting field, celebrating not just the advanced physics behind these materials but also their advanced fabrication methods, highly sensitive characterization, and potential applications in future devices.

Guest Editor

Dr. Paul Steadman
Diamond Light Source, Didcot OX11 0DE, UK

Deadline for manuscript submissions

closed (20 May 2025)

Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.6

mdpi.com/si/195953

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

MDPI

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).