Special Issue

Superconductivity and Magnetism

Message from the Guest Editor

In principle, superconductivity and magnetism are two competing orders of matter and therefore, in theory, should be mutually excluded. However, there are situations, already predicted by Vitaly Ginzburg in 1950, in which the two phenomena can coexist. In this way, the Cooper pairs penetrate into the ferromagnetic laver for proximity effect, and one has the unique possibility to study properties of superconducting electrons under the influence of a large exchange field. These eterostructures are also suitable for a lot of technical applications. In a conventional superconductor, the glue of Cooper pairs are phonons, i.e., vibrations of the crystal lattice. Furthermore, it is now almost certain that the mechanism responsible for superconductivity in cuprates and in iron pnictides is antiferromagnetic spin fluctuations.

Guest Editor

Dr. Giovanni Alberto Ummarino

Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino, 10129 Turin, Italy

Deadline for manuscript submissions

closed (31 December 2020)



Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.6



mdpi.com/si/26154

Magnetochemistry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41616837734
magnetochemistry@mdpi.com

mdpi.com/journal/ magnetochemistry





Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.6



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

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).

