# Special Issue

# Interactions and Magneto-Optics in Magnetic Arrays

## Message from the Guest Editor

Magnetic arrays are at the core of new fundamental developments and applied devices, and magnetooptics has proven to be an invaluable tool to characterize their properties. During the last few decades, there has been a considerable effort towards building an understanding of the phenomena associated with magnetic interactions between elements in arrays. For instance, in some applications using patterned media, it is necessary to ensure there is no cross-talk when switching single element magnetization in the array. On the other extreme, there is a rich plethora of phenomena associated with interaction effects, where switching one element's magnetization might provoke a switching cascade, much like tokens falling in the domino effect. These interactions, both 2D "in plane" and 3D "perpendicular to plane" in heterostructures like magnetic tunnel junctions, demand going beyond the dipolar approximation and are best characterized magnetooptically, having also unique aspects such as diffractive magneto-optics. They are also fundamental in designing spintronic devices and new computing concepts.

### **Guest Editor**

Dr. José Luis Costa-Krämer

IMN-Instituto de Micro y Nanotecnología (CNM-CSIC), Isaac Newton 8, PTM, 28760 Tres Cantos, Madrid, Spain

### Deadline for manuscript submissions

closed (30 November 2021)



# Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 4.6



mdpi.com/si/45476

Magnetochemistry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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).

