Special Issue

Electrodynamics of Hybrid Nanostructures

Message from the Guest Editor

Electrodynamics is about what happens when an electromagnetic field meets matter. At nanoscale, this encounter triggers a variety of physical phenomena that reveal a plethora of novel properties of the material that can be tailored to devise different kinds of hybrid systems and devices. In particular, combining a magnetic material with a plasmonic nanostructure, in the so-called *magneto-plasmonic nanostructure*, provides us with an additional handle for controlling the electrical, magnetic and optical properties of such structures. This is achieved through coupling of electric and magnetic fields to the charge and spin degrees of freedom of the underlying material, producing several rich non-linear effects. This Special Issue will provide an up-to-date snapshot of the current fundamental research on the interplay between charge and spin excitations in hybrid nanostructures, to understand the ensuing physical phenomena and related issues, their current benefits and limitations, fostering new fundamental research and applications.

- charge and spin degrees of freedom
- nanomagnetism, plasmonics
- hybrid nanostructures
- magneto-plasmonic effects
- theory and experiments

Guest Editor

Prof. Dr. Hamid Kachkachi

Laboratoire PROMES CNRS UPR8521, Université de Perpignan Via Domitia, Rambla de la Thermodynamique, Tecnosud, 66000 Perpignan, France

Deadline for manuscript submissions

closed (15 December 2021)

Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.6

mdpi.com/si/61148

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

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).