Special Issue

Laser and Plasma Processing of Advanced Functional Materials for Magnetic, Electrotechnical and Electrochemical Applications

Message from the Guest Editors

The aim of this SI is to cover all relevant aspects of materials science, highlighting the benefits of laser and plasma processing. Thus, submissions on laser ablation—in vacuum, in a controlled atmosphere, or in liquids—are all welcomed. Accordingly, this joint Special Issue welcomes manuscripts on the challenges and trends covering research, with a special focus on the design, synthesis, and characterization of any type of advanced functional materials, including:

- Magnetic materials and compounds—including glasses and ceramics (metals, oxides, non-oxides, composites, etc.); ferroelectric materials and multiferroics; and superconductivity materials and their response to magnetic fields;
- Carbon allotropes and structures—including diamond and diamond-like carbon (amorphous carbon); graphite, fullerenes, and carbon sheets (graphene, nanotubes, nanobuds, nanowalls, and nanoribbons); and carbon fiber composites; activated carbon, and carbonaceous nanomaterials;
- Organometallics and hybrid MOF materials—including for electrochemical synthesis, electroanalytical methods, and sensor applications;

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2024)



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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

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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).

