Special Issue

Composite Magnetoelectric Materials

Message from the Guest Editor

Composite magnetoelectric materials exhibit unique properties resulting from the interplay between magnetic and electrical subsystems. The mechanical interaction between magnetostrictive and piezoelectric phases induces the magnetoelectric effect. Under a magnetic field, an electric field emerges, generating an electrical voltage, and vice versa, under an electric field, magnetization changes. This interaction is significantly amplified in composite materials compared to single-phase ones, enabling diverse device applications such as magnetic field sensors and tunable inductors.

Previous studies explored various composite types, including bulk, thick-film, thin-film structures, and nanocomposites. Despite extensive research, enhancing the efficiency of magnetoelectric conversion remains a pivotal challenge. This interdisciplinary field attracts researchers from physics, chemistry, materials science, and engineering, aligning with the scope of Magnetochemistry journal.

Our Special Issue, "Composite Magnetoelectric Materials", aims to showcase recent advancements in this domain, inviting both experimental and theoretical contributions in the open access journal Magnetochemistry.

Guest Editor

Prof. Dr. Dmitry Alexandrovich Filippov
Polytechnical Institute, Yaroslav-the-Wise Novgorod State University, Veliky Novgorod 173003, Russia

Deadline for manuscript submissions

closed (30 November 2024)

Magnetochemistry

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.6

mdpi.com/si/200651

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).