

Special Issue

Nanocomposite Magnetic Materials for Energy Conversion

Message from the Guest Editors

Soft magnetic nanocomposites play a fundamental role in designing power electronic and electrical machine components and devices. Magnetic materials, some of which are subject to supply risks, price volatility, or concerns about long-term availability, have been shown to have significant impacts on viability, reliability, and efficiency of power conversion.

There are many aspects of the development of magnetic components to maximize their performance and efficiency in the dedicated application, such as material development and technological aspects.

Nanocomposite magnetic materials are usually obtained in the form of powders, ribbons, or bulks by using various production methods, including atomization processes, mechanical alloying, wet chemical synthesis, rapid quenching methods, and additive manufacturing techniques.

This Special Issue, “Nanocomposite magnetic materials for energy conversion”, will address advances in materials science, processing, and the characterization and application aspects of various types of functional magnetic materials, including soft magnetic nanocomposites, hybrid materials, shape memory alloys, and electromagnetic absorbers.

Guest Editors

Dr. Aleksandra Kolano-Burian

Lukasiewicz Research Network - Institute of Non-Ferrous Metals,
Gliwice, Poland

Dr. Łukasz Hawełek

Lukasiewicz Research Network, Institute of Non-Ferrous Metals, 5
Sowinskiego Str., 44-100 Gliwice, Poland

Deadline for manuscript submissions

closed (31 December 2022)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/52498

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

[mdpi.com/journal/
materials](https://mdpi.com/journal/materials)





Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



[mdpi.com/journal/
materials](https://mdpi.com/journal/materials)



About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /
CiteScore - Q1 (Condensed Matter Physics)