Special Issue

Design, Fabrication, and Characterization of Magnetoresponsive Materials and Devices

Message from the Guest Editors

Magnetically responsive materials allow a large variety of possibilities to design, develop, and implement remotely actuated/read devices. Magnetoactive materials, including magnetorheological, magnetostrictive, magnetoresistive, magnetoelectric, and magnetocaloric materials, are attracting increasing interest, since they allow applications in areas such as energy generation, transmission and storage, memory storage, sensing and actuation, and the development of biomedical devices (tissue engineering, drug delivery, implantable devices, and biosensors). They can be found in different sizes, shapes, and configurations, such as magnetic nanoparticles, nanowires, nanorods, pellets, thin films, or nanocomposites, among others. These materials can be fabricated using different methods, including lithography/etching techniques, 2D and 3D printing, casting techniques, cutting techniques, and machining. The scope of this Special Issue is to present advances in (i) fabrication and processing of magnetoresponsive materials and (ii) development of devices based on magneto-active materials, for different applications.

Guest Editors

Dr. Karla Jaimes Merazzo

Micro- and NanoDevices, BCMaterials, Basque Center on Materials, Applications and Nanostructures, 48940 Bilbao, Spain

Dr. Filipe Arroyo Cardoso

Department of Electrical Engineering, Columbia University, New York, NY 10027, USA

Deadline for manuscript submissions

closed (20 January 2023)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/83880

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

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

MDPI

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)