



materials



an Open Access Journal by MDPI

Advances in Magnetoelectric Multiferroic Materials and Heterostructures: Properties, Techniques and Devices

Guest Editor:

Dr. Rüdiger Schmidt-Grund

Fachgebiet Technische Physik I,
Technische Universität Ilmenau,
Weimarer Straße 32, 98693
Ilmenau, Germany

Deadline for manuscript
submissions:

closed (10 January 2023)

Message from the Guest Editor

The aim here stems from memory applications via multijunction information processing and sensors to quantum mechanically coupled states for quantum information technology. In this context, generally speaking about magnetoelectric and multiferroic materials, magneto-electric coupling can be intrinsically in and also mediated via boundaries in heterostructures, utilizing, for example, magneto-strictive, piezoelectric, and ferroelectric/-magnetic materials. This Special Issue aims at providing comprehensive insight into state-of-the-art as well as topical research within areas such as regarding the fabrication and experimental characterization of those systems, the theoretical understanding of the coupling mechanism at the atomic level, feasibility studies, and device demonstration. Additionally, aspects of the fundamental polarization and spin interaction processes in pure magnetic or ferroelectric materials when related to the coupling mechanism may be discussed.



mdpi.com/si/97640

Special issue



an Open Access Journal by MDPI

Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

Message from the Editorial Board

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.

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)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)