

Special Issue

Innovation and Application of Novel Ferroelectric Materials

Message from the Guest Editors

In the technical application of ferroelectrics, several directions have emerged, the most important of which should be considered:

- 1) manufacturing of small-sized low-frequency capacitors with a large specific capacity;
- 2) the use of materials with high polarization nonlinearity for dielectric amplifiers, modulators and other controlled devices;
- 3) the use of ferroelements in computing technology as memory cells;
- 4) the use of crystals of ferroelectric and antiferroelectrics for modulation and conversion of laser radiation;
- 5) manufacturing of piezoelectric and pyroelectric transducers.

The main environmental factors affecting the development and commercialization of new materials are the reduction in the use of toxic materials (mainly lead, lead oxide, but also bismuth, cadmium and nickel), conservation of natural resources, environmentally friendly sources and energy conservation. There is an increasing interest in the study of ceramic ferroelectrics at the micro- and submicroscopic level. This is due to the emergence of new technological problems, such as ferroelectric structures for optics, micro- and radio electronics.

Guest Editors

Prof. Dr. Larisa Andreevna Reznichenko

Physics Faculty, Research Institute of Physics, Southern Federal University, 344006 Rostov-on-Don, Russia

Dr. Eugene Sitalo

Physics Faculty, Research Institute of Physics, Southern Federal University, 344006 Rostov-on-Don, Russia

Deadline for manuscript submissions

closed (31 December 2021)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/66009

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)