Special Issue

Advanced Piezoelectric Nanomaterials: Fundamentals and Applications

Message from the Guest Editors

Piezoelectric effects, an intriguing phenomenon, enable the robust and precise conversion between electrical and mechanical energies. While the fundamental mechanisms behind piezoelectricity are well established, the precise control and manipulation of the piezoelectric effect, including electrical polarization, mechanical deformation, and electromechanical coupling, continue to be an active area of scientific inquiry and technological innovation. This capability is crucial for advancing the understanding of electromechanical phenomena and unlocking a wide range of cutting-edge applications, such as energy harvesting, intelligent sensing, precision actuation, and biomedical applications. In this Special Issue, we invite original research articles and reviews that focus on advanced piezoelectric materials, covering various aspects from fundamentals to applications. We enthusiastically welcome contributions that delve into the exploration of the piezoelectric materials and their applications, with the aim of stimulating and accelerating further breakthroughs within this captivating field. We look forward to receiving your contributions.

Guest Editors

Dr. Zhuomin Zhang

Dr. Xuemu Li

Dr. Xiaote Xu

Deadline for manuscript submissions

20 August 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/205067

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

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)