Special Issue

Materials, Design, and Performance of Nanogenerators

Message from the Guest Editors

Nanogenerators (NGs), as an emerging energy-harvesting technology that has witnessed rapid development in recent years by efficiently converting mechanical energy into electrical energy to power electronics, demonstrate significant potential in wearable electronics, the Internet of Things (IoT), and artificial intelligence. In NG research, structural design, material selection, and optimization are crucial factors that determine device performance. A well-engineered structural design, along with the use of high-performance materials, can significantly enhance the output power and energy conversion efficiency of NGs. These characteristics make NGs a promising technology in fields such as energy harvesting and self-powered sensing. Therefore, exploring new materials and improving the performance of existing materials are crucial for advancing this area of research. This Special Issue invites submissions from researchers worldwide to share the latest research findings on materials, design, and performance of nanogenerators. We look forward to receiving original research papers and review articles that will collectively promote the development of this cutting-edge technology.

Guest Editors

Dr. Chengyu Li

Dr. Youchao Qi

Dr. Zijie Xu

Deadline for manuscript submissions

20 September 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/229386

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)