



an Open Access Journal by MDPI

Design and Characterization of Materials for Energy Conversion and Storage

Guest Editor:

Dr. Kwok-Ho Lam

Centre for Medical and Industrial Ultrasonics, James Watt School of Engineering, University of Glasgow, Glasgow, UK

Deadline for manuscript submissions:
closed (20 January 2024)

Message from the Guest Editor

Energy harvesting is emerging as an attainable approach to convert the energy from the ambient including mechanical vibration, thermal energy, magnetic field, sound, and light into electricity for sustainable development of mobile electronic devices and sensor network systems. Innovative materials for energy conversion and storage serve as an alternative power supply, which are crucial to the advanced development of various wearable electronics and wireless sensors. This Special Issue plans to give an overview of state-of-the-art bulk, micro- and nano-scale energy-related materials (including single crystals, ceramics, polymers, alloys, and composites), which involves the advances in the materials design strategies, synthesis, characterizations, and applications.

Potential topics include, but are not limited to:

- Magnetoelectric materials
- Piezoelectric materials
- Pyroelectric materials
- Thermoelectric materials
- Triboelectric materials
- Hybrid harvesters



mdpi.com/si/173188

Special Issue



an Open Access Journal by MDPI

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

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.

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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*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)