# Special Issue

# Advances in Polymer Composites for Thermoelectric Energy Conversion

## Message from the Guest Editors

Currently, large amounts of energy generated are dissipated as heat into the surrounding atmosphere. Thermoelectric materials which enable direct conversion from thermal energy into electricity are considered emerging candidates in harvesting waste heat. Driven by the rapid progress in wearable and miniaturized electronic devices, flexible thermoelectric materials, especially polymer-based composites have attracted special interest. Despite the advances achieved in pursuing high-performance thermoelectric polymer composites so far, we expect further steps through the physical–chemical, structural, electronic, and compositional study of polymer-based thermoelectric composites and their devices. In this Special Issue, we aim to provide readers with up-to-date research advances in polymer composites for thermoelectric energy conversion. Topics include, but are not restricted to, the following:

- High-performance thermoelectric polymer-based composites;
- Novel fabrication methods of thermoelectric composites;
- Physical/chemical study of thermoelectric composites;
- Thermoelectric composite fibers;
- Novel design of flexible thermoelectric devices.

## Guest Editors


Dr. Siqi Liu

Department of Materials Science & Engineering, National University of Singapore, 9 Engineering Drive 1, Singapore 117574, Singapore

Dr. Hui Li

Hubei Key Laboratory of Plasma Chemistry and Advanced Materials, Hubei Engineering Technology Research Center of Optoelectronic and New Energy Materials, School of Materials Science and Engineering, Wuhan Institute of Technology, Wuhan 430073, China


## Deadline for manuscript submissions

closed (20 April 2023)


# Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/132954

*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)