materials

an Open Access Journal by MDPI

IMPACT FACTOR 3.1

Indexed in: PubMed

CITESCORE 5.8

Advances in Flexible Organic Thermoelectrics

Guest Editor:

Dr. Chungyeon Cho
Department of Carbon Convergence Engineering, College of Engineering, Wonkwang University, Iksan 54538, Jeonbuk, Korea

Deadline for manuscript submissions:
closed (28 February 2022)

Message from the Guest Editor

Most inorganics perform best at high temperatures (>500 K), whereas most of the waste heat conversion has temperatures below 400 K. By contrast, organic thermoelectric materials with low cost, easy solution processability, and mechanical flexibility are more suitable for harvesting low-grade heat in a low temperature range (300–400 K). Furthermore, the very low intrinsic thermal conductivity of organic materials provides an effective strategy to improve TE performance. Many research groups have put tremendous effort into creating high-performance organic materials for low-temperature TE applications via controlling chemical doping, polymeric chain conformation, and compounding with carbon nanofillers. These organic TE materials are now becoming competitive with traditional inorganic counterparts. This Special Issue o f *Materials* aims to cover the most recent advances in "flexible organic thermoelectric materials", concerning not only the performance metrics of organic-based composites but also reports of their preparation and characterization of thermoelectric nanogenerators for producing high-performance next-generation devices.

materials

IMPACT FACTOR 3.1 | Indexed in: PubMed | CITESCORE 5.8

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