



*materials*



an Open Access Journal by MDPI

## Advanced Electronic Devices for Biomedical Applications

Guest Editor:

**Dr. Hanjun Ryu**

Department of Advanced  
Materials Engineering, Chung-  
Ang University, Anseong,  
Republic of Korea

Deadline for manuscript  
submissions:

**closed (20 April 2024)**

### Message from the Guest Editor

This Special Issue aims to provide a wide range of recent research of advanced electronic devices for biomedical applications; not only development of wearable electronic devices and implantable biomedical devices, but also an energy solution of wearable and implantable electronic devices.

Bioresorbable materials are particularly interesting for implantable electrostimulation platforms for temporal medical treatment, which can bypass a post-retrieval surgery. For example, the study of nerve/wound electrostimulation can accelerate recovery of wounded region, which are beneficial for the society. The proper closed-loop systems can realize highly advanced biomedical applications, which can facilitate telemedicine to improve the patient wellness.

Batteries are one of the most promising energy sources for wearable/implantable systems. Energy harvesting devices are also another candidate to recharge/operate the electronic wearable/implantable devices, which can extend lifetime of biomedical devices. Wireless energy transfer system may be the other opportunity to develop advanced biomedical applications.



[mdpi.com/si/156584](https://mdpi.com/si/156584)

**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](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)