

## Special Issue

# Epitaxial Growth of Semiconductor Materials

### Message from the Guest Editor

The development of techniques for the epitaxial growth of thin semiconductor films over recent decades has contributed significantly to the technological revolution. Over this time, there has been at least three stages. First, it was the Si and Ge era, the next was the GaAs and InP era, and now the GaN era is half-jokingly described as "GaNification". The rapid development of epitaxy techniques of Si, Ge, GaAs, and InP could be progressed as good quality and cheap monocrystalline substrates were available. In the case of gallium nitride, the lack of such lattice-matched substrate delayed the progress, but is contributing to the dynamic development of the heteroepitaxial growth techniques. After the success of blue optoelectronics in the global reduction of energy consumption, it is time to improve the efficiency of electronic devices working in systems producing green energy. This Special Issue focuses on epitaxial growth by various techniques utilizing any semiconductor material. I am confident that every article published in this open access Special Issue will be read and cited by a large number of scientists and will disseminate knowledge about epitaxy.

### Guest Editor

Dr. Robert Czernecki

Institute of High Pressure Physics, Polish Academy of Sciences,  
Warsaw, Poland

### Deadline for manuscript submissions

closed (10 September 2023)



## Materials

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/118353](https://mdpi.com/si/118353)

*Materials*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[materials@mdpi.com](mailto:materials@mdpi.com)

[mdpi.com/journal/  
materials](https://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](https://mdpi.com/journal/materials)



## 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)