

## Special Issue

# Recent Advances in Optoelectronic Functional Nano-Materials

### Message from the Guest Editors

This Special Issue aims at bringing together professionals and academics performing advanced research on materials with outstanding optical and optoelectronic properties that have the potential to positively shape the information-processing and energy-demanding world of tomorrow. The main purpose is to collect innovative and original contributions targeting modern challenges in optoelectronics and photonics. Nanomaterials research is highly multidisciplinary and strongly benefiting from international cooperation, and has successfully entered the stage of industrial application. Similarly, the revisited class of 2D materials with controllable single-layer features that are now increasingly being explored promise a new age of optoelectronic nanodevices. Ultimately, the synthesis of quantum materials has evolved to the extent that mass producibility and device integration have become common topics. In fact, certain materials have shown very interesting properties that render them attractive candidates for optoelectronic devices. Future on-chip optoelectronic circuitry for computing or possibly biomedical applications may also benefit from recent advances in this overarching field.

### Guest Editors

Dr. Arash Rahimi-Iman

Dr. Weien Lai

Dr. Weiguang Kong

### Deadline for manuscript submissions

closed (20 July 2023)



## Materials

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/126242](https://mdpi.com/si/126242)

*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)