Special Issue

Design, Synthesis, and Applications of Optoelectronic Functional Materials

Message from the Guest Editor

The rapid development of novel optoelectronic materials has enabled many technological advances in applications, including photovoltaic, light-emitting diodes, photodetectors, lasing, and other photonics. Recently, exciting progress has been made in the field ranging from the understanding of fundamental materials properties, the synthesis of novel materials morphologies and dimensionalities, and the optimization of the devices. With these, researchers have been able to better design and synthesize functional materials for higher efficiency, sustainability, and low cost. Despite these successes, many challenges are still to be addressed. This Special Issue aims to explore the design and synthesis of optoelectronic materials and their applications in devices, with, but not limited to, the following topics:
Photovoltaic, light-emitting diodes, photodetectors, lasers;
Materials modeling and data-driven materials design;
Optoelectronic materials synthesis;
Organic-inorganic hybrid materials;
Low-dimensional materials and superlattices.

Guest Editor

Dr. Ruoxi Yang
Lawrence Berkeley National Laboratory, Materials Science Division, Berkeley, CA 94720, USA

Deadline for manuscript submissions

closed (20 September 2024)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/179093

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

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)