







an Open Access Journal by MDPI

Development of Boron-Based Materials

Guest Editor:

Dr. Nevill Gonzalez Szwacki

Institute of Experimental Physics, Faculty of Physics, University of Warsaw, Pasteura 5, PL-02093 Warsaw, Poland

Deadline for manuscript submissions:

10 September 2024

Message from the Guest Editor

Dear Colleagues,

This Special Issue covers but is not limited to the synthesis and applications of novel boron allotropes. Different exand in-situ techniques to characterize and investigate these advanced materials, such as their surface and interface properties, will be included.

As examples of important topics, materials, and techniques, we expect contributions on:

- Low-dimensional structures such as all-boron clusters, fullerenes, and one- and two-dimensional materials.
- Novel allotropes of bulk boron.
- Boron-based nanostructures such as alloys, heterostructures, and organic-inorganic hybrid structures
- Nanoscale compounds, including borides and boron hydrides, halides, carbides, and nitrides.
- Novel two-dimensional transition metal borides (MBenes).
- Defect-induced properties addressing quantum applications.
- Advanced materials characterization techniques and the latest methods of computer simulations.













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 iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. 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