

## Special Issue

# Mechanical and Microstructural Behaviour of Heterogeneous Metallic Materials

### Message from the Guest Editors

The proper manufacturing of heterogeneous metallic materials requires the knowledge of new processing techniques and routes together with the optimum parameters that lead to a positive strength–ductility synergy. These routes can be associated with, but not limited to, severe plastic deformation plus heat treatments or the new disruptive technologies from additive manufacturing. Furthermore, understanding the behavior of heterogeneous metallic materials is essential to analyze the microstructural and mechanical variations across the interphases of the hard and soft zones where a heterogeneous deformation state occurs. Therefore, this issue invites the material science community to submit research papers dealing with the fundamentals, design, simulation, and characterization of heterogeneous metallic materials using innovative processing routes that help to understand the strengthening mechanism of these particular materials.

### Guest Editors

Prof. Dr. Jairo Alberto Muñoz

Prof. Dr. Jose Maria Cabrera

Prof. Dr. Raúl Eduardo Bolmaro

Dr. Liliana Romero Reséndiz

### Deadline for manuscript submissions

closed (10 May 2024)



## Materials

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 6.4  
Indexed in PubMed



[mdpi.com/si/163164](https://mdpi.com/si/163164)

*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 Editorial Board

*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.

---

### Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

---

### 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)