

Special Issue

Microstructure and Mechanical Properties Relationship for Metallic Materials

Message from the Guest Editor

The application potential of engineering materials is related to their properties for the considered use. For metals, the potential exists to improve or tailor properties for specific and especially high-end applications through the processes affecting the microstructure evolution. These processes include heat treatment, thermomechanical treatment, severe plastic deformations processes, or basically processes of casting, welding, or recently additive manufacturing, which can play a significant role in the creation of the desired properties of traditional metallic materials. Currently available processes provide not only homogeneous materials but also yielding heterogeneous and functionally graded materials, such as additive manufacturing, laser processing, processing with inductive treatment.

This Special Issue is focused on papers considering the relationships between microstructure and related properties for the application of advanced metallic materials. This Special Issue will collect quality papers providing a sound base in the field for present and future scientists dealing with the enhancement of metallic materials properties for specific high-end applications.

Guest Editor

Prof. Dr. Jan Džugan
COMTES FHT a.s., Dobruany, Czech Republic

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/42422

Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)