



an Open Access Journal by MDPI

## Microstructure, Mechanical and Wear Behavior of Metal Matrix Composites

Guest Editors:

**Dr. M. Ravichandran**

Department of Mechanical Engineering, K. Ramakrishnan College of Engineering, Trichy 621112, Tamil Nadu, India

**Dr. Vinayagam Mohanavel**

Bharath Institute of Higher Education and Research, Selaiyur, Chennai, India

Deadline for manuscript submissions:

**closed (10 October 2023)**

### Message from the Guest Editors

Dear Colleagues,

Composites represent the best materials for instruments requiring higher mechanical characteristics and lower weight. Metal matrix composites play a vital role in wear-related applications since the hard reinforcement in the soft matrix improves the wear resistance of the composite materials. The microstructure of composite materials is refined by the secondary particles in the matrix, the reinforcement particles also improve the material's strength. The characteristics of metal matrix composites are thus represented by the reinforcement and the matrix and the interface between them. Metal matrix composites have a wide application in many sectors, such as automotive, aerospace, and thermal management, due to their excellent specific strength.

With these functions in mind, this Special Issue concerns the manufacturing routes, processing techniques, characterization, applications, performance, and recycling of composites. Both primary articles and research on engineering applications covering metal matrix composites will be considered, along with papers focused on their mechanical, wear, and corrosion behaviour, and their applications.



[mdpi.com/si/116459](https://mdpi.com/si/116459)

# Special Issue



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 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.

## 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](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)