

Special Issue

Mechanical Behavior of Metallic Materials

Message from the Guest Editors

The mechanical properties of metallic materials determine their suitability for a variety of load-bearing or structural applications, such as rebars in the construction industry, turbine blades in the aerospace industry, hip implants in the biomedical industry, and fuel cladding materials in the nuclear industry. The strength, ductility, toughness, and stiffness at room temperature of these materials, as well as their formation conditions—whether under high temperatures or cryogenic temperatures, and under monotonic or cyclic loading conditions—are important properties that must be evaluated before a material is selected for a particular application. Testing techniques for the evaluation of material properties at various scales, including creep, nanoindentation, fatigue, and strain rate, are well developed. However, the field of materials engineering is very dynamic, and the community is continuously striving to develop materials with better performance, greater durability, and lower costs.

Guest Editors

Prof. Dr. Korukonda Linga (KL) Murty

Department of Nuclear Engineering, North Carolina State University, Raleigh, NC 27695, USA

Dr. Srikant Gollapudi

Indian Institute of Technology Bhubaneswar, Bhubaneswar 752050, Odisha, India

Deadline for manuscript submissions

31 May 2026



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/251371

Metals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
metals@mdpi.com

[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)





Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



[mdpi.com/journal/
metals](https://mdpi.com/journal/metals)



About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editor-in-Chief

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering,
State Key Laboratory for Advanced Metals and Materials, University of
Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083,
China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei
Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /
CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 18.7 days after
submission; acceptance to publication is undertaken in 2.7
days (median values for papers published in this journal in
the second half of 2025).