

Special Issue

Superior Strength–Ductility Combination of Heterostructured Metallic Materials

Message from the Guest Editors

Metallic materials often show the strength–ductility trade-off law, that is, metallic materials are usually either strong or ductile, but rarely to hold both at the same time. Nowadays, severe plastic deformation (SPD) techniques have been widely utilized to enhance strength to a much higher level, which could be several times higher than their original coarse-grained counterparts. Unfortunately, the ductility sharply decreases to a relatively low degree, which could be attributed to the lack of strain hardening capacity. The raised heterostructured materials could solve the problem mentioned above. This Special Issue features studies on various kinds of heterostructured material processing route and the more in-depth deformation mechanisms.

Guest Editors

Dr. Xinkun Zhu

Faculty of Materials Science and Engineering, Kunming University of Science and Technology, Kunming, China

Dr. Yulan Gong

Faculty of Science, Kunming University of Science and Technology, Kunming, China

Deadline for manuscript submissions

closed (25 May 2025)



Metals

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.3



mdpi.com/si/218594

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, CAPus / 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 days after
submission; acceptance to publication is undertaken in 2.6
days (median values for papers published in this journal in
the first half of 2025).