

Special Issue

Metal Forming Processes and Plastic Deformation Behaviors

Message from the Guest Editors

Metal forming is a crucial manufacturing technology in various industries like aerospace, automotive, energy, and heavy equipment. Materials undergo plastic flow during forming operations under complex thermomechanical loading paths. The interaction among constitutive response, microstructure evolution, and crystallographic texture collectively influences the mechanical properties and dimensional accuracy of final components. This Special Issue will focus on advanced forming methods such as isothermal forging, hydroforming, and electromagnetic forming, emphasizing process optimization, constitutive modeling, and microstructure engineering.

The main goal of this Special Issue is to connect fundamental plasticity theory with practical engineering applications. By promoting the development of physically based simulation tools and process design methodologies, the aim is to facilitate more efficient, sustainable, and high-integrity innovations in metal forming, advancing scientific understanding and industrial practice.

Guest Editors

Dr. Hui-Juan Ma

School of Automotive Engineering, Wuhan University of Technology, Wuhan, China

Dr. Ming-Jie Zhao

School of Materials Science and Engineering, Nanchang Hangkong University, Nanchang 330063, China

Deadline for manuscript submissions

15 May 2027



Metals

an Open Access Journal
by MDPI

Impact Factor 3.1
CiteScore 5.7



mdpi.com/si/287824

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 3.1
CiteScore 5.7



[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 15.3 days after
submission; acceptance to publication is undertaken in 2.9
days (median values for papers published in this journal in
the first half of 2026).