

## Special Issue

# Advanced Welding Technology in Metals III

### Message from the Guest Editors

Welding and joining technologies are fundamental in advanced engineering alloys to expand their applications. At present, we often observe significant developments in the areas of welding and joining, with more complex and sophisticated variants available. Another key area of interest is related to welding metallurgy: The microstructural changes induced by welding and joining techniques can drastically modify the joints' mechanical behavior. For that reason, it is necessary to correlate process parameters, microstructure, and mechanical response in welded joints. Finally, simulation and modelling of the thermomechanical behavior during welding and the predictions of existing phases due to the weld thermal cycle are critical to optimize welding parameters. For this Special Issue, we invite our colleagues to submit papers in the areas of welding and joining. The topics of interest include but are not limited to similar and dissimilar joining, fusion and solid-state processes, modeling and simulation, process development, and advanced characterization. Review papers and short communications are also of interest to this Special Issue.

---

### Guest Editors

Prof. Dr. João Pedro Oliveira

CENIMAT/I3N, Department of Materials Science, NOVA School of Science and Technology, Universidade NOVA de Lisboa, 2829-516 Caparica, Portugal

Prof. Dr. Zhi Zeng

School of Mechanical and Electrical Engineering, University of Electronic Science and Technology of China, No.2006, Xiyuan Ave, West Hi-Tech Zone, Chengdu, China

---

### Deadline for manuscript submissions

closed (31 October 2024)



## Metals

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.3



[mdpi.com/si/171650](https://mdpi.com/si/171650)

*Metals*

Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[metals@mdpi.com](mailto: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).