Special Issue

Characterization and Modeling on Complex Metallic Materials

Message from the Guest Editors

Complex metallic materials have gained significant attention and are at the cutting edge of scientific research and industrial development activities. Diverse leading techniques like aberration-corrected scanning transmission electron microscopy, synchrotron radiation diffraction and tomography, 2D and 3D electron backscatter diffraction, powder and single-crystal X-ray diffraction, etc., as well as multiscale numerical simulation approaches including density-function theory, molecular dynamic simulation, and finite element analysis have been utilized to characterize the atomic-level crystal structure and microstructure peculiarities, with the purpose of understanding and tailoring the properties of the studied system. **General topics:**

- Multiscale calculations on CMM design and properties prediction
- Phase transformation
- Characterization of microstructure
- Characterization of crystal structure
- Plasticity, fatigue, fracture, and corrosion resistance physical properties
- Vacancy, dislocation, and twin defects
- Innovation hardware and software

Guest Editors

Guest Editors

Prof. Dr. Bin Wen

State Key Laboratory of Metastable Materials Science & Technology, Yanshan University, Qinhuangdao 066004, China

Prof. Dr. Changzeng Fan

State Key Laboratory of Metastable Materials Science & Technology, Yanshan University, Qinhuangdao 066004, China

Deadline for manuscript submissions

closed (31 July 2024)



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/187645

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

mdpi.com/journal/ metals





Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



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 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).

