Special Issue

Design, Processing and Characterization of Metals and Alloys

Message from the Guest Editor

Metals and alloys, such as pure copper, aluminum alloy, steel, and TiAl intermetallic, are important materials for the aerospace, automobile, and electronic industries. All the products applied to any engineering field must experience the whole process of design and processing, including composition design, microstructure design, processing method and relative parameters. Furthermore, to detect the microstructure and optimize the service performance, both microstructure characterization and mechanical characterization are required to different extents. Thus, it is guite important to understand and unveil the close links among design, processing and characterization. This is the aim of this Special Issue, entitled "Design, Processing and Characterization of Metals and Alloys", and we hope to collect excellent studies on any metal or alloy from around the world. Works concerning but not limited to aluminum alloy, magnesium alloy, steel, copper, brass, Ti-Al, heat treatment, plastic deformation, mechanical behavior, phase transformation, and microstructure characterization are all welcome.

Guest Editor

Dr. Qinghuan Huo

School of Materials Science and Engineering, Central South University, Changsha 410083, China

Deadline for manuscript submissions

closed (31 July 2025)



Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/188289

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 Editorial Board

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.

Editors-in-Chief

Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

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).