# Special Issue

# Research Progress in the Microstructure and Mechanical Properties of Light Alloys

# Message from the Guest Editor

Due to the upcoming energy crisis and environmental pollution, lightweight alloys, such as aluminum, magnesium, and titanium, are attracting more attentions for potential applications in aerospace and transportation industries. The strengthening of lightweight alloys becomes more important, which has definite benefits for the safety of aircrafts and vehicles. Materials science reveals that bridging the relationship between microstructure and mechanical properties is crucial for developing new technologies and theories. An in-depth understanding of the fundamental issues of materials science is very important for the engineering application of high-performance materials. In this Special Issue, we will publish a set of articles on the microstructure and mechanical properties of lightweight alloys. We encourage authors to submit their latest research on wide aspects, such as interesting microstructures, novel strengthening technologies, indepth mechanisms, advanced processing for productions, etc. Articles on the metallurgy, production methods, microstructure characterizations, corrosion resistance, and performance in final products of lightweight alloys are desired.

#### **Guest Editor**

Prof. Dr. Hao Zhou

Nano and Heterogeneous Structural Materials Center, School of Materials Science and Engineering, Nanjing University of Science and Technology, Nanjing 210094, China

#### Deadline for manuscript submissions

closed (31 January 2023)



# Metals

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.3



mdpi.com/si/92536

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).

