



Magnesium Alloys: Structure, Properties and Applications

Guest Editors:

Dr. Jianyue Zhang

Department of Materials Science and Engineering, The Ohio State University, Columbus, OH 43210, USA

Prof. Dr. Alan Luo

Department of Materials Science and Engineering, The Ohio State University, Columbus, OH 43210, USA

Deadline for manuscript submissions:

closed (30 June 2022)

Message from the Guest Editors

Magnesium, as the lightest structural metal, is the third most abundant metallic element in the Earth's crust, provide attractive properties, such as a high specific strength, excellent biocompatibility, and recyclability. Mg alloys have seen increasing applications in the fields of automotive, biomedical, and other consumer products. Thus, there has been increased research and development regarding Mg alloys, from alloy design and microstructure to properties and applications.

In the last few years, the properties of Mg alloys have been constantly improved by alloying or through casting and thermal mechanical processing. The improved properties are closely related to the microstructure control of Mg alloys, including grain refinement, the formation of second phases, and precipitation.

In this Special Issue, we aim to provide a wide set of articles covering alloy design, microstructure modification, property development, and potential applications of Mg alloys. Performance-related topics are also welcome, including corrosion resistance, biocompatibility, etc. For this Special Issue, we will collect regular research papers, reviews, and short communications.





an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/metals
metals@mdpi.com
[X@Metals_MDPI](https://twitter.com/Metals_MDPI)