







an Open Access Journal by MDPI

Development of Advanced Aluminum and Magnesium Alloys: Microstructure, Mechanical Properties and Processing

Guest Editor:

Prof. Dr. Wenming Jiang

State Key Laboratory of Materials Processing and Die & Mould Technology, School of Materials Science and Engineering, Huazhong University of Science and Technology, Wuhan 430074, China

Deadline for manuscript submissions:

20 October 2024

Message from the Guest Editor

Mg and Al alloys are the first and second engineering light metals, which are widely used in aviation, aerospace, navigation, automotive, and electronics fields. High-performance advanced Mg and Al light alloys will have great application potentials in the future, which has also become a research hotspot.

For the Special Issue reviews, short communications and full-length research papers focused on the following topics are welcome:

- High-strength, high-toughness, and high-modulus Mg and Al alloys;
- Processing of innovative high-strength Mg and Al alloys, such as casting, plastic forming, welding, or 3D printing methods or powder metallurgy methods;
- Relationships among the microstructure, mechanical properties, and processing conditions of the Mg and Al alloys;
- Composition design and calculation, and microstructure regulation of the Mg and Al alloys;
- Control of formation and defects of the Mg and Al alloys components during the processing processes.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials. materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. Materials provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us