Special Issue

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

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.

Guest Editor

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced 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.

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