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Research Progress in High-Performance Magnesium Alloy and Its Applications

Guest Editor:

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Message from the Guest Editor

Magnesium is abundant in the Earth's crust and seawater. Mg alloy is the lightest metallic structural material, with the advantages of high specific strength, high specific stiffness, good electromagnetism shield, good damping capacity, good machinability, easy recycling, etc. Therefore, it has extremely broad application prospects and has drawn considerable interest in the fields of automobile, electronics, electrical appliances, transportation, aerospace, aviation, and the national defense military industry.

This Special Issue will compile recent developments and excellent results in the field of Mg alloys to accelerate the large-scale application of Mg alloys. The articles presented in this Special Issue will cover but are not limited to the following topics: alloy development, microstructural evolution and mechanical properties, solidification and cast alloys, deformation and wrought alloys, welding and joining, corrosion and surface treatment, modeling and simulation, primary production and recycling, biomedical and functional applications, etc.



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