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State-of-the-Art Magnesium Alloys

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Deadline for manuscript
submissions:

closed (30 June 2023)

Message from the Guest Editors

Magnesium alloy is the lightest metal structural material with advantages of high specific mechanical properties (strength, stiffness, elastic modulus), good damping capacity, good machinability, etc., which support its wide application. Its good bio-compatibility allows this alloy to become a rising star in the biomaterial family. Additionally, magnesium alloy has shown great potential as a functional material for energy storage and hydrogen storage because of its features of large hydrogen storage capacity and high theoretical specific capacity for batteries. However, some difficulties still need to be overcome, including its relatively low strength, its poor plasticity and inferior corrosion resistance for structural applications, its narrow hydrogen charging and discharging window for hydrogen storage applications, and its high anodic hydrogen reaction rate for energy applications. Therefore, it is important to develop advanced strategies to overcome these disadvantages. A Special Issue named “State-of-Art of Magnesium Alloys” is launched to further promote the magnesium alloy.



mdpi.com/si/115606

Special Issue



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Message from the Editor-in-Chief

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