



Advances and Improvement in Corrosion-Fatigue Resistance of Magnesium Alloy

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Message from the Guest Editors

Magnesium alloys are the lightest engineering materials and are attractive to the automotive, aerospace, and electronics industries to reduce weight. However, they have high chemical reactivity and are susceptible to reacting with oxides, chlorides, and sulfides. Additionally, they have poor wear, low oxidation resistance, and low corrosion resistance. The main obstacle preventing the further application of Mg alloys is their electrochemical reactivity and its associated low corrosion resistance.

This Special Issue will address the development of corrosion protection of Mg alloys to improve fatigue performance in a harsh environment. It will also cover insights into microstructural phenomena leading to the mechanical properties of the manufacturing process and alloy development. Researchers who are modeling, simulating and performing experimental studies on the fatigue performance of Mg alloys involving microstructural features are welcomed to submit papers.





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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.

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