Special Issue

Corrosion Behavior of Magnesium Alloys

Message from the Guest Editor

Magnesium alloys are a very attractive material for use in various industries. However, the corrosion of magnesium alloys is one of the major problems that limit the use of magnesium alloys for transportation applications. Furthermore, there are additional future uses for magnesium: in the medical industry—use of magnesium alloys as a structural material for biodegradable implants; and in the energy industries—use of magnesium as a structural material for magnesium–air batteries or as a structural material for hydrogen storage. The application of all future uses depends on the development of new magnesium alloys together with the ability to control the environmental behavior of the new alloys. The Journal of Metals will publish a Special Issue in the summer of 2021 focusing on "Corrosion Behavior of Magnesium Alloys". This issue is intended to explore the complex relationship between the performances, processing, microstructure, and corrosion of magnesium alloys. The Special Issue invites contributions from academia, researchers, industry professionals, and engineers.

Guest Editor

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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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