Special Issue

Corrosion and Protection of Lightweight Engineering Materials: Mg Alloys, Al Alloys, Ti Alloys and Other Related Metals—2nd Edition

Message from the Guest Editors

Magnesium alloys, aluminum alloys, titanium alloys, and other related lightweight engineering materials are commonly used in the automotive, aerospace, and electronics industries, as well as in biomedical fields. Currently, it is also well known that their undesirable corrosion resistance in most service environments hinders their industrial applications. Therefore, understanding the different corrosion mechanisms of these lightweight engineering materials in different working environments and developing associated methods for their corrosion protection is imperative. This Special Issue aims to provide an open platform for metallurgists, materials scientists, and engineers to share and disseminate recent research advances on the corrosion and protection of lightweight engineering materials. The potential topics of this Special Issue are diverse, encompassing alloying, processing, surface treatment, and electrochemical protection. It welcomes both experimental and theoretical studies and accepts original research and review articles.

Guest Editors

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About the Journal

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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