



Corrosion of Magnesium Alloys

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Message from the Guest Editors

Dear Colleagues,

Magnesium alloys, given their high strength-to-weight ratio, are very attractive materials for applications. However, magnesium alloys have not found widespread application, particularly in the corrosive environment, because of their unacceptably rapid corrosions. Thus, there is a great commercial value in finding measures for durable corrosion resistance of magnesium alloys. It may be intriguing that, because of the susceptibility of magnesium to corrosion, and the corrosion products of magnesium being non-toxic, there has been recent and increasing interest in these alloys for manufacturing biodegradable temporary implants. With this background, this Special Issue invites contributions from academia, researchers, industry professionals and engineers on the following aspects:

- Corrosion mechanics and corrosion-assisted fracture of magnesium alloys
- Measures for mitigation of corrosion of magnesium alloys
- Application of magnesium alloys including in novel fields, such as bioimplants





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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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