Special Issue

Waste Materials for Sustainable Corrosion Protection of Metals

Message from the Guest Editors

Corrosion has a substantial economic, environmental, and adverse sustainability impact on almost all facets of the world's infrastructure. Corrosion prevention techniques may include the use of corrosion inhibitors, corrosion-resistant alloys, anti-corrosion coatings, anodic passivation, cathodic protection, proper design, etc. Corrosion protection by the use of inhibitors and anti-corrosion coatings is attractive because it is one of the most practical, efficient, and cost-effective techniques. The world is moving towards achieving Vision 2030, which aims to phase out toxic chemicals, and corrosion scientists are therefore intensifying research activity on green materials. Integrated utilization of waste is a progressive direction of resource conservation. Within this direction is the idea of introducing into production not only low-waste but also zero-waste technology. This Special Issue intends to disseminate the most recent research on sustainable waste materials in protecting metallic materials against corrosion in different aggressive solutions.

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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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