

Special Issue

Advances in Corrosion and Protection of Materials

Message from the Guest Editor

The design of new materials and manufacturing methods must rely on a careful analysis of the corrosion resistance, especially on the correlation between chemical composition, processing parameters, metallurgical aspects and surface characteristics. In this challenging scenario, corrosion research is crucial. Novel research fields have emerged in the past few years, bringing a huge amount of information on hot topics such as multiprinciple metallic alloys, additively manufactured alloys, friction stir welded materials, localized corrosion processes studied by scanning probe techniques, biomedical alloy, and new protective coatings. The aim of this Special Issue is to provide the readership of *Metals* with the most up-to-date research in the corrosion and protection of materials. The interests are particularly related to corrosion of novel metallic alloys, corrosion mechanisms, correlation between surface chemistry and corrosion, novel manufacturing methods, effects of metallurgical aspects on corrosion, use of scanning probe techniques to study local corrosion processes, protective coatings, and surface treatments. We welcome reviews and research articles.

Guest Editor

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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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