Special Issue

Investigations on Mechanical Properties and Corrosion Resistance of Alloys and Compounds

Message from the Guest Editor

Literature is scarce of investigations concatenating two competitive or cooperative properties. Distinctive manufacturing routes including traditional and classical routes, as well as other innovative methods provide different microstructural arrays. It is well known that the resulting microstructures have important roles on both mechanical and corrosion behavior. It is also recognized that trade off among the main properties constitute great challenge in engineering applications. For this purpose, it is very useful to concatenate at least two properties showing their potential application. In this Special Issue a wide set of manuscripts and investigations are intended. Microstructural characterization and their effects on mechanical and corrosion behavior are expected. Thus, researchers are invited to proposed original investigations involving a wide range of materials. These covering traditional metallic alloys, and various distinctive composites (e.g., rebar in concretes, Al-based alloys, biomedical components, lead-free solder alloys, etc.) with concatenated mechanical and corrosion analyses.

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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