Special Issue

Green Inhibitors for Metals Corrosion: Electrochemical Investigations

Message from the Guest Editor

It is recognized that pure metals and metallic alloys are intensively susceptible to corrosion. This means a degradation phenomenon, where, in particular point of view, the metals are subjected to an electrochemical condition. This is caused by the potential difference between the anode and the cathode. In order to decrease corrosion effects, inhibitor contents are added to the corrosive medium. These compounds are adsorbed onto the metal surface, and corrosive effects can thus be minimized. The majority of inhibitors contain contaminants and harmful particles. Based on this, a new class of corrosion inhibitors, designated as green inhibitors, is emerging, with particular focus being paid to their biodegradability, low toxicity, availability, and environmental friendliness. In this Special Issue, a wide set of manuscripts and investigations focusing on the above-mentioned aspects will be included. Thus, investigations involving metals and metallic alloys and compounds, by using electrochemical impedance spectroscopy and potentiodynamic polarization techniques, are expected to characterize corrosion inhibitor behavior.

Guest Editor

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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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