Special Issue

Advances in Corrosion and Protection of Passivating Metals and Alloys

Message from the Guest Editor

This Special Issue concerns the processing and examination of broadly understood corrosion-resistant materials, including stainless steels, titanium, aluminium, magnesium and copper alloys, as well as coatings produced to protect metallic materials and increase their corrosion resistance. Thermal, thermo-chemical or mechanical processes can improve and often, in contrast, deteriorate the corrosion resistance of alloys in aggressive environments. These processes can significantly affect the durability of passive layers that spontaneously form on the metallic surface. Additional protection in the form of inhibitors or anodic protection and surface engineering methods, which are able to provide effective anti-corrosion improvement, are commonly used. Due to the enormous global costs associated with, among other things, the corrosion of passivating materials, this Special Issue will publish articles on the latest achievements and solutions in the field of materials processing, as well as the production of layers and coatings and the use of other protection methods that guarantee the slowing down of corrosion processes.

Guest Editor

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Message from the Editorial Board

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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