Special Issue

Corrosion Electrochemistry and Protection of Metallic Materials

Message from the Guest Editors

Metallic alloys are used in various industries such as automotive aerospace, aeronautic, chemical and naval. These industries have high requirements with few damage tolerances. As such, they necessitate the use of materials that present fatigue, mechanical and mainly corrosion resistance. Corrosion of materials in the industry is a major problem affecting economics, safety and logistical issues. The mechanic strength of metallic alloys is not sufficient to protect components exposed to aggressive environments. In both cases, this can be achieved via the optimization of alloy designs and metallurgical processes, as well as appropriate corrosion control strategies.

This Special Issue covers investigations on corrosion electrochemistry and the protection of metallic materials, focusing on current trends in electrochemical corrosion science, and aims to provide a perspective on recent research studies related to metallic materials, where electrochemical techniques, corrosion mechanisms and corrosion protection methods are addressed. All articles related to electrochemical corrosion and methods of protection of metallic materials are welcome.

Guest Editors

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Message from the Editor-in-Chief

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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