

Special Issue

Corrosion and Crack Behavior of Metallic Materials in High-Temperature Environment

Message from the Guest Editors

For a continuous building of social infrastructure and economic development, environmental compatibility is a crucial requirement for the metallic structure materials used in industrial fields with high-temperature environments, such as energy conversion system, gas turbines industry, chemical industry, etc. It is essential to validate metallic materials against high-temperature applications. In order to prevent corrosion degradation and oxidation processes, new corrosion-resistant alloys and protective coatings are needed to serve an extended lifetime for structural materials; it is important to understand the corrosion and cracking mechanism of materials performed in such extreme environments. I am pleased to invite and welcome you to contribute to this Special Issue. The aim of this Issue is to discuss the corrosion and cracking behavior of metallic materials and coatings applied in high-temperature environments. Articles which focus on material design, modification, treatment, protection, corrosion test technique, and corrosion simulation, which are relevant to the corrosion and prevention of materials, are also welcomed.

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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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