







an Open Access Journal by MDPI

Corrosion and Protection of Metal Alloys in Extreme Environments

Guest Editor:

Dr. Rui Liu

Shenyang National Laboratory for Materials Science, Northeastern University, Shenyang 110819, China

Deadline for manuscript submissions:

10 January 2025

Message from the Guest Editor

Dear Colleagues,

This Special Issue, "Corrosion and Protection of Metal Alloys in Extreme Environments", focuses on corrosion phenomena and the protective measures of metal alloys in high-temperature, high-pressure, acidic, and extreme alkaline environments. We aim to investigate the corrosion mechanisms of metal alloys in extreme conditions and discover effective protective methods to extend their service life in these environments. Through the in-depth analysis of the causes and processes of metal alloy corrosion, as well as various protective technologies, such as surface coatings, corrosion-resistant coatings, and electrochemical protection, this research aims to provide more reliable material selection and protection strategies for relevant industrial applications.













an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and systems. 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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases

Journal Rank: JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi