# Special Issue

# Corrosion and Protection of Metals and Alloys: Recent Advances and Future Prospects

## Message from the Guest Editors

Several studies published during the last decades have emphasized that the corrosion of materials costs society 3-5% of GDP yearly. This is mainly due to the necessity to rebuild or restore preexisting damaged structures, resulting in a significant economic and environmental impact. Therefore, the topic of corrosion protection and prevention strategies is a hot topic nowadays. As a consequence of this, several approaches are being thoroughly investigated, ranging from protective coatings to inherently corrosion-resistant alloys. However, the corrosion behavior of metals is greatly dependent on the environmental conditions of application, but also composition, microstructure and surface finishing. Additionally, the rise of new technologies and materials results in innovative materials and microstructures, characterized by unique combinations of properties and corrosion behaviors. This Special Issue aims at collecting works dealing with the corrosion behavior of metals and alloys. Additionally, authors focusing on corrosion protection mechanisms, surface treatments and innovative characterization techniques are very welcome to submit their works.

## Guest Editors

Prof. Dr. Marina Cabrini

Department of Engineering and Applied Sciences, University of Bergamo, 24044 Dalmine, Italy

Dr. Alessandro Carrozza

Department of Engineering and Applied Sciences, University of Bergamo, 24044 Dalmine, BG, Italy

## Deadline for manuscript submissions

closed (20 April 2024)

**Materials**

**an Open Access Journal by MDPI**

**Impact Factor 3.2**
**CiteScore 6.4**
**Indexed in PubMed**

mdpi.com/si/162814

*Materials*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/materials

# Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/materials

MDPI

# About the Journal

## 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.

## 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

## 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 - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)