







an Open Access Journal by MDPI

Investigation of Microstructural and Corrosion Properties of Steels and Light Alloys

Guest Editors:

Dr. Claudio Gennari

Department of Industrial Engineering, University of Padua, Padua, Italy

Dr. Luca Pezzato

Department of Industrial Engineering, University of Padova, Via Marzolo 9, 35131 Padova, Italy

Deadline for manuscript submissions:

closed (10 August 2023)

Message from the Guest Editors

Dear Colleagues,

Very few metals can be found in metallic form in nature; the vast majority have to be processed from their ores at a great cost in terms of energy and money. It is therefore energetically favorable for them to reverse to their initial state. This process is commonly known as corrosion or anti-metallurgy, and great efforts are made worldwide to limit this process.

A proper alloy design in terms of composition, heat treatments, microstructural features, etc. is mandatory in order to obtain the best combination of mechanical properties and corrosion resistance during operation, reducing maintenance costs and the overall impact on the global economy. In fact, microstructural features can affect both the corrosion of the material itself and also the eventual production of protective layers on their surfaces.

The purpose of this Special Issue is to correlate the key role of the microstructure of steels and light alloys to their corrosion properties.

I invite you to submit papers that deal both with the characterization and with corrosion resistance evaluation of different alloys.

Dr. Claudio Gennari Dr. Luca Pezzato Guest Editors













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, OC 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 - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us