Special Issue

Localized Corrosion of Metals and Alloys

Message from the Guest Editors

Localized corrosion is one of the most pervasive forms of attack impacting virtually all engineering metals and alloys that derive their resistance from the spontaneous development of a passive layer. Localized corrosion remains as a recurrent, costly, and difficult-to-detect phenomenon affecting a range of materials from the plenitude of stainless steels, to nickel-based alloys, and non-ferrous systems. Localized corrosion is a commonplace in diverse industry segments such as the resources, power, aerospace, water, maritime, and biomedical sectors. The goal of this Special Issue is to present state-of-the-art research on passivity and localized corrosion phenomena, with emphasis on the interplay between microstructure and performance. Research linking localized and mechanically assisted corrosion is also encouraged. We welcome original research articles, theoretical and modeling studies, historical failure investigations, and review papers aimed at pushing the frontiers of corrosion science and engineering. Articles focused on issues affecting the oil and gas, mining, nuclear, defense, automotive, infrastructure, and biomedical industries are of particular interest.

Guest Editors

Prof. Dr. Mariano Iannuzzi
Curtin Corrosion Centre, Curtin University, Bentley, WA 6102, Australia

Prof. Dr. Afrooz Barnoush
Curtin Corrosion Center, Curtin University, Technology Park, Bentley, WA 6102, Australia

Deadline for manuscript submissions

closed (31 October 2020)

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/25985

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

mdpi.com/journal/metals

Metals

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/metals

About the Journal

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editors-in-Chief

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

MDPI