



an Open Access Journal by MDPI

Soil and Pitting Corrosion of Steel

Guest Editor:

Dr. Davood Nakhaie

Department of Materials Engineering, The University of British Columbia, Vancouver, BC V6T 1Z4, Canada

Deadline for manuscript submissions: closed (25 February 2022)

Message from the Guest Editor

Dear colleagues,

Soil and pitting corrosion of steel structures is a major problem for many industries—from oil and gas to infrastructure to utility transmission. Despite extensive studies, many aspects of soil corrosion remain unclear as soil is a complex, porous, and discontinuous environment comprised of inorganic and organic solid phases, a waterbased liquid phase, air, and other gas phases, all of which present challenges for research. Similarly, several aspects of pitting corrosion are still unexplored. This Special Issue o f *Metals* aims to cover all aspects of soil and pitting corrosion of steel, with a special interest in the following topics:

- Pitting corrosion of additive manufactured alloys;
- Microstructure/pitting corrosion relationship of steel;
- Multiscale modeling for corrosion prediction;
- Soil corrosion in pipeline and infrastructure;
- Soil corrosion—risk assessment and mitigation;
- Corrosion inhibitors.

Dr. Davood Nakhaie Guest Editor









an Open Access Journal by MDPI

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

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 metallurgical field the 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.

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), Inspec, CAPlus / SciFinder, and other databases. **Journal Rank:** JCR - Q2 (*Metallurgy & Metallurgical Engineering*) / CiteScore - Q1 (*Metals and Alloys*)

Contact Us

Metals Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/metals metals@mdpi.com X@Metals_MDPI