



Pitting Corrosion and the Electrochemical Properties of Metallic Materials

Guest Editors:

Prof. Dr. Ildiko Peter

Department of Industrial Engineering and Management, Faculty of Engineering and Information Technology, “George Emil Palade” University of Medicine, Pharmacy, Science and Technology of Târgu Mureş, Targu Mures, Romania

Dr. Lida Kouhalvandi

1. Dipartimento di Elettronica e Telecomunicazioni, Politecnico di Torino, 10129 Torino, Italy
2. Department of Electrical and Electronics Engineering, Dogus University, 34775 Istanbul, Turkey

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Message from the Guest Editors

Industrial components can be obtained by employing different classes of materials or a combination of them. Metallic materials are one type of materials often used for different engineering components production, a field where mechanical resistance is of primary importance. Even if metals and their alloys in most cases reveal excellent mechanical endurance, unfortunately, they suffer corrosion when exposed to harmful media such as biological liquids, seawater, gas pipelines, etc. Hence, their electrochemical properties strongly affect their performance during their application lifetimes.

This Special Issue aims to collect research articles focusing on the electrochemical specifications of various metallic materials. The main aims of this issue are to (i) focus on the presentation and application of new electrochemical techniques in order to analyze the corrosion resistance, including the pitting corrosion, of metallic materials and (ii) to collect ideas in order to enhance metallic corrosion resistance and (iii) the use of these concepts in optimization processes. Researchers are welcome to contribute both experimental and theoretical articles to this Special Issue.





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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 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.

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Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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