Special Issue

Corrosion and Protection in Aeronautical Alloys

Message from the Guest Editors

The aeronautical industry demands improvements of structural and functional material components based on scientific research carried out on new materials and corrosion protection methods. The intrinsic strength of alloys is not sufficient to protect structural components exposed to aggressive environments. Such improvements can be achieved by optimization of alloy design and metallurgical processes and by appropriate corrosion control strategies. This Special Issue, “Corrosion and Protection of Aeronautical Alloys”, is focused on current trends in corrosion science, engineering, and technology and aims to cover recent research studies related to the performance of metals and alloys used in the aeronautical industry, addressing corrosion mechanisms, electrochemical techniques, protection methods, corrosion and failure analysis case studies, and simulation and modeling. Articles related to the broad spectrum of materials behavior used in aeronautics and corrosion protection methods are welcome. We hope that this Special Issue will provide useful information for anyone working in this exciting field.

Guest Editors

Prof. Dr. Facundo Almeraya-Calderón
Center for Innovation and Research in Aeronautical Engineering, Faculty of Mechanical and Electrical Engineering, Autonomous University of Nuevo León, San Nicolás de los Garza 66455, Mexico

Prof. Dr. José Guadalupe Chacón-Nava
Advanced Materials Research Center, Chihuahua 31136, Mexico

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

mdpi.com/journal/metals

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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

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