Special Issue

Progress in Biomedical Metallic Materials and Surfaces

Message from the Guest Editors

Biomedical materials based on metals are constantly evolving to address the complex challenges the human body presents. These materials are subjected to rigorous testing to ensure they can withstand the mechanical and chemical stresses of the biological environment. Surface engineering plays a critical role in enhancing the performance of these materials, providing improved wear resistance, reduced friction, and enhanced osseointegration, among other benefits. Integrating advanced surface modification techniques, such as coatings, texturing, and functionalization, has opened new avenues for creating tailored surfaces that interact more effectively with biological tissues. In this Special Issue, we invite contributions that explore novel approaches to developing biomedical metallic materials and surface engineering. We are particularly interested in studies that investigate the relationship between material properties and their biological interactions, as well as those that demonstrate promising applications in the human body. Research on innovative fabrication methods that enable the production of customized solutions is also highly encouraged.

Guest Editors

Prof. Dr. Bruno Alexandre Pacheco de Castro Henriques
Centre for MicroElectroMechanical Systems, CMEMS-UMinho, Guimaraes, Portugal

Prof. Dr. Claudio Aguilar
Departamento de Ingeniería Metalúrgica y Materiales, Universidad Técnica Federico Santa María, Valparaíso 2390123, Chile

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

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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

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