Special Issue

Surface Modification of Metallic Biomaterials

Message from the Guest Editor

The ever-growing demand for advanced and high-performance biomedical materials entails continuing technological advancements toward improving biocompatibility, mechanical integrity and wear and degradation properties. In particular, the higher performance of implantable metallic biomaterials translates into more dependable prosthetics and bio-scaffolds. Metallic biomaterials such as stainless steel, titanium and magnesium alloys are among the most prominent implant materials due to their unique load-bearing property and innate biocompatibility. While the bulk properties of the material dictate the general mechanics and load-bearing properties of a biomedical scaffold, the surface properties control its biocompatibility and interaction with the surrounding environment/tissue. Effective control of the degradation rate and biocompatibility can be achieved by proper surface modification. This Special Issue on “Surface Modification of Metallic Biomaterials” is dedicated to contributions in the field of surface engineering that aim to improve the performance of metallic implant materials.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

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