Special Issue

Advanced Metals and Alloys for Biomedical Applications

Message from the Guest Editor

Metals and their alloys have been used as implants for almost 125 years, when in 1895, for the first time, a metal plate was introduced for bone fracture fixation. All of the properties of implant materials (of metals and alloys) are significantly affected by their technology and resulting microstructure, including their phase composition, grain shape and size, grain boundary distribution, dislocation density, dispersed particles and solutes, internal stresses, and so on. Therefore, the studies on the relationships between technology, microstructure, and implant properties are of a great practical importance. Moreover, the effort put into searching for new implant materials and modifying existing implant materials is so important for biomedical applications. The aim of this Special Issue is to present the latest achievements in the technology, structure development, surface modification, and properties of various metallic materials for implants. In conclusion, it is my pleasure to invite all researchers from the community of metals and alloys for biomedical application to submit a manuscript in the field for this Special Issue.

Guest Editor

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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.

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