Special Issue

Advances in Metallic Materials for Biomedical Applications

Message from the Guest Editor

Metallic materials have been used for a long time as biomaterials in medical applications such as prosthetics and implants to replace or restore the functionality of damaged or diseased biological tissues. These materials are subjected to very complex biological and structural environments within our bodies, requiring specific solutions for each application, such as surface modifications to optimize biocompatibility or prevent the formation of biofilms, the manufacturing of customized components, or even presenting controlled absorption over time. With the rapid advancement in the development of new alloys, surface treatments and new methods of manufacturing metallic components for biomedical use, this Special Issue, 'Advances in Metallic Materials for Biomedical Applications', seeks to bring the state of the art in that field. Both reviews and articles are welcome. This Issue welcomes contributions in the fields of surface coatings and treatments, single-crystal alloys for implants, additive manufacturing, resorbable alloys, metal matrix composites, shape memory and high entropy alloys for biomedical applications.

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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