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Titanium Alloys for Biomedical Implants and Devices

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Message from the Guest Editors

A range of materials may be used in the human body including metals, ceramics, and polymers. Among them, titanium alloys have received significant interest leading to widespread successful adoption in the biomedical field due to their unique combination of outstanding properties. Over the past decades, a large amount of research has focused on various aspects of titanium alloys leading to the design, production, and commercialization of a series of alloys specifically tailored to biomedical applications. Despite the outstanding properties afforded by current titanium alloys, there is a need to continue to enhance performance through developing understanding of important aspects of their processing and structure. This is necessary to enhance performance and reliability of titanium implants and devices and, consequently, improve patient health outcomes and reduce the need for painful and costly revisionary surgery.

This Special Issue seeks to collect expert views and article contributions on various aspects of a wide range of titanium alloys to highlight challenges and recent advances relevant to the biomedical area.









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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 metallurgical field the ranging from processing. and mechanical behavior. phase transitions microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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