Special Issue

Frontiers in Biodegradable Materials and Their Processing

Message from the Guest Editor

As an alternative to performant implants, biodegradable materials including metallic alloys and polymers have significant potential to be used in tissue engineering. Over the years, researchers have designed and developed new types of biodegradable materials and methods for their processing, with the aim of improving their mechanical and biological properties. Properties including surface topography, hardness, contact angle, corrosion, cell viability, cell adhesion/proliferation, and antibacterial and inflammation behaviour, are some of the key factors that determine the overall performance of the material prior to its potential application in clinical trials. A proper balance between adequate mechanical integrity and biological characteristics to crucial to achieve this target. On the other hand, biodegradable polymers have low strength, and how to increase their mechanical properties is another aspect to consider.

This Special Issue is dedicated to highlighting new and emerging research findings on biodegradable materials. Furthermore, papers about processing techniques, e.g., alloying, surface modifications and coating to biodegradable materials are all welcome.

Guest Editor

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Deadline for manuscript submissions

closed (31 March 2023)



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Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the Journal of Functional Biomaterials (JFB) is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. JFB seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

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