



## Surface Modification, Functionalization and Characterization of Metallic Biomaterials

Guest Editors:

**Dr. Ana María Beltrán**  
**Custodio**

Department of Engineering and  
Materials Science and Transport,  
University of Seville (US), 41004  
Seville, Spain

**Dr. Belén Begines**

Department of Organic and  
Medicinal Chemistry, Faculty of  
Pharmacy, University of Seville.  
C/ Profesor Garcia Gonzalez, 2,  
41012 Seville, Spain

Deadline for manuscript  
submissions:

**closed (31 January 2023)**

### Message from the Guest Editors

Dear Colleagues,

The use of metallic biomaterials has been widely extended thanks to their mechanical properties and biocompatibility, which achieve a good balance with respect to natural tissues. The determination of the mechanical properties and the surface characteristics is required to optimize the selection of the metals and metallic alloys and the fabrication techniques for the final application.

However, metallic biomaterials can present poor biofunctional behavior, which can be overcome by the modification, functionalization and/or coating of the surface, to make it more attractive for cell adhesion and proliferation while minimizing bacteria-related infections.

This Special Issue collects works related to metallic biomaterials, from fabrication to surface modification to enhance the bifunctionality (in any of its aspects) and achieve a good balance.





an Open Access Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Hugo F. Lopez

Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

### Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Metallurgy and Metallurgical Engineering*) / CiteScore - Q1 (Metals and Alloys)

## Contact Us

---

Metals Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/metals](http://mdpi.com/journal/metals)  
[metals@mdpi.com](mailto:metals@mdpi.com)  
[X@Metals\\_MDPI](https://twitter.com/Metals_MDPI)