



an Open Access Journal by MDPI

## Synthesis, Degradation and Biocompatibility of Bioresorbable Materials

Guest Editors:

**Dr. Sandra Carolina Cifuentes Cuéllar**

Department of Materials Science  
& Metallurgical Engineering,  
Universidad Rey Juan Carlos,  
Móstoles, 28935 Madrid, Spain

**Dr. Juan Pablo Fernández Hernán**

Department of Materials Science  
& Metallurgical Engineering,  
Universidad Rey Juan Carlos,  
Móstoles, 28935 Madrid, Spain

Deadline for manuscript  
submissions:  
**closed (20 February 2025)**

### Message from the Guest Editors

Biomaterials play a significant role in medicine, improving the quality of life of patients. The search to develop appropriate implants or adequate methods that allow the healing of human tissues enhances the need for understanding the behavior of biomaterials in the human body. The use of bioresorbable materials in different medical applications is increasing, as there is a need to develop medical devices that are metabolized by the human body once they have fulfilled their task. In this sense, the main objective of this Special Issue is to highlight knowledge on the synthesis, degradation, and biocompatibility of bioresorbable materials. We welcome novel scientific research on themes including, but not limited to, the following:

- (i) Bioresorbable metals and alloys;
- (ii) Biopolymers and gels;
- (iii) Bioactive ceramics and glasses;
- (iv) Biocomposites;
- (v) Surface treatments.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## 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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

## Contact Us

*Materials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)