



an Open Access Journal by MDPI

Advance in Biodegradable Medical Devices

Guest Editors:

Dr. Rui Miranda Guedes

Departamento de Engenharia
Mecânica Faculdade de
Engenharia, Universidade do
Porto, Rua Dr. Roberto Frias,
4200-465 Porto, Portugal

Prof. Dr. Maria Ascensão Lopes

INEGI-LAETA, Departamento de
Engenharia Mecânica Faculdade
de Engenharia, Universidade do
Porto, Rua Dr. Roberto Frias,
4200-465 Porto, Portugal

Deadline for manuscript
submissions:

closed (20 October 2022)

Message from the Guest Editors

Designing a biodegradable implant device implies assuring the mechanical compatibility between the material and the host tissue, and the biocompatibility of degradation products generated during biodegradation in the host biological system. It remains quite challenging to balance the mechanical compatibility and degradation rate. Better knowledge of the interaction between the device and the host is critical to design successful devices.

Next-generation biodegradable devices will integrate multiple functions, but their design will require in-depth knowledge of the interaction between the host wound-healing mechanisms and the immune responses caused by the biomaterials and devices and their degradation products.

This Special Issue intends to cover these open questions and other related issues on biodegradable medical devices. It is our pleasure to invite you to submit a full paper, a communication, or a review article.

Keywords

- tissue engineering
- drug delivery
- wound healing
- natural biomaterials
- synthetic biomaterials
- implantable sensors



mdpi.com/si/85911

Special Issue



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 - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)