Special Issue

Synthesis, Degradation and Biocompatibility of Bioresorbable Materials

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.

Guest Editors

Dr. Sandra Carolina Cifuentes Cuéllar

Department of Applied Mathematics, Materials Science and Engineering and Electronic Technology, ESCET, Universidad Rey Juan Carlos, Madrid, Spain

Prof. Dr. Juan Pablo Fernández Hernán

Área de Ciencia e Ingeniería de Materiales, ESCET, Universidad Rey Juan Carlos, Madrid, Spain

Deadline for manuscript submissions

20 February 2025



an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 5.8
Indexed in PubMed



mdpi.com/si/180164

Materials
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

mdpi.com/journal/ materials





an Open Access Journal by MDPI

Impact Factor 3.1
CiteScore 5.8
Indexed in PubMed





About the Journal

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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
 Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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)