Special Issue

Ceramics and Related Composites for Biomedical Applications: Materials, Advanced Manufacturing, and Biomedical Performance

Message from the Guest Editor

With the rapid development of biomedical technology, biomaterials are receiving increasing attention. Ceramics and related composites, with their unique physical, chemical, and biological properties, have shown great application potential for biomedical applications. From traditional inert bioceramics to new active bioceramics to functionally active bioceramics, researchers have made significant progress in the replacement and repair of human bones and teeth, as well as the manufacture of artificial organs. The emergence of advanced manufacturing technology has also provided new vitality for the development of materials. In addition, the emergence of design, advanced manufacturing technology, and external field stimulation has also provided new vitality for the development of materials, as well as the improvement of their biomedical performance.

Guest Editor

Prof. Dr. Rujie He Institute of Advanced Structure Technology, Beijing Institute of Technology, Beijing 100081, China

Deadline for manuscript submissions

20 November 2025



an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 6.4 Indexed in PubMed



mdpi.com/si/217697

Materials Editorial Office 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 3.2 CiteScore 6.4 Indexed in PubMed



materials



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

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

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)