



an Open Access Journal by MDPI

Recent Advances in Biocoatings

Guest Editors:

Prof. Dr. Yurii Sharkeev

1. Laboratory of Physics of Nanostructured Biocomposites, Institute of Strength Physics and Materials Science SB RAS, 2/4, Academicheskii pr., 634055 Tomsk, Russia
2. Research School of High-Energy Physics, National Research Tomsk Polytechnic University, 30 Lenina pr., 634050 Tomsk, Russia

Dr. Ekaterina Komarova

Laboratory of Physics of Nanostructured Biocomposites, Institute of Strength Physics and Materials Science SB RAS, 2/4 Academicheskii Avenue, 634055 Tomsk, Russia

Deadline for manuscript submissions:

closed (20 September 2022)

Message from the Guest Editors

In the last few decades, there has been a research development trend in biocompatible material production. More and more advanced medical technologies, materials, and items are being developed, including metal-based implants and biocompatible coatings, which, in its turn, could replace injured and disabled areas of the bone tissue. To date, many coating methodologies have been discovered, such as ion beam assisted deposition, plasma spray deposition, physical vapor deposition, magnetron sputtering, sol-gel coatings, electrodeposition, micro-arc oxidation, laser deposition, biomimetic deposition, etc. Various calcium phosphate (CaP) ceramics, in terms of their physical and chemical properties (crystallinity, porosity, solubility, free surface and ion substitutions) exhibit different effective bone formation. Therefore, there has been a great trend towards the development of bioactive calcium phosphate-based coatings on various metallic and non-metallic substrates for biomedical applications. This Special Issue is focused on the recent progress in the production and performance of novel CaP-based coatings on the biomedical implants via various techniques.



mdpi.com/si/27955

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, St. Alban-Anlage 66
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)