Special Issue

Recent Advances in Biocoatings

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.

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Deadline for manuscript submissions

closed (20 September 2022)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/27955

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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.

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