

Special Issue

Biomimetic Multifunctional Composites for Hard Tissue Regeneration

Message from the Guest Editors

Population ageing and the modern way of life result in increased frequency of chronic disease, hard tissue (bone and teeth) diseases take a special place due to the fact that they are present in all age groups, significantly reduce patient quality of life, and influence society in general. Often the only treatment of such diseases is implantation with the aim to regenerate damaged or diseased tissue.

However, a number of implants fail prematurely. In addition, due to the continuous population ageing, many patients are outliving their implants. Although the frequency of the failures is not high, it is costly. The solution of such problems is sought in the development of multifunctional materials, which in addition to replacing missing tissue and/or enabling its regeneration, as well as having improved mechanical properties, will act as a local drug delivery system.

In this Special Issue, novel trends in development, and, the characterization and synthesis of composite materials either mimicking hard tissues in their architecture and/or being produced by biomimetic methods will be presented.

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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.

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