Special Issue

Synthesis and Characterization of Hybrid Scaffolds in Bone Tissue Regeneration

Message from the Guest Editor

Bone scaffolds have been extensively used as bone substitutes to repair bone defects. Recently, there has been an increasing focus on developing processes for the production of ideal 3D scaffolds for bone regeneration. A variety of techniques are used in the fabrication of 3D scaffolds, and additive-manufacturing-based 3D-printing technology has attracted attention because of its advantages in designing and fabricating the scaffold architecture's internal structure, shape, porosity, pore size and pore interconnectivity and external shapes. Various biomaterials have been investigated as scaffold materials for damaged bone tissue repair , including metals, ceramics, polymers (natural and synthetic), or their combinations. Since bioceramics have similar chemical and structural properties compared to the mineral phase of human bones, they have been extensively studied as biocompatible and osteoconductive materials for bone regeneration. Aiming to highlight this concept, this Special Issue will focus on the synthesis and characterization of hybrid scaffolds for bone tissue regeneration. Full papers, communications, and reviews are welcome.

Guest Editor

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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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