

Special Issue

Additive manufacturing and Biofabrication of Tissue Engineering Scaffolds

Message from the Guest Editor

In tissue engineering, scaffolds play a crucial role. A scaffold, which is a porous three-dimensional (3D) structure, is used to facilitate cell/tissue growth and the transportation of nutrients and wastes while interacting with biological environment. The emergence of new technology- additive manufacturing and 3D printing has enabled scientists to fine tune the internal and external structure of scaffolds and to incorporate various bioinstructive molecules such as genes, growth factors, and cytokines within the scaffolds to ultimately enhance rate of tissue regeneration. The present Special Issue of Materials will include the most recent and relevant contributions from materials scientists, biologists, and tissue engineers, focusing on novel 3D tissue scaffold fabrication; tissue and organ printing; the modelling of biofabrication processes and biofabricated constructs; architecture optimisation; and the fabrication of bioinstructive scaffolds using the volumetric incorporation of genes, growth factors, and cytokines.

Guest Editor

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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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