Special Issue

Engineering the Future: Advances in 3D Printing Formulations for Biomedical Solutions

Message from the Guest Editors

I am pleased to invite you to submit your work to the Special Issue on “Engineering the Future: Advances in 3D Printing Formulations for Biomedical Solutions”. The rapid evolution of 3D printing has revolutionized biomedical engineering, enabling the fabrication of complex, patient-specific structures for regenerative medicine, drug delivery, and medical devices. Materials play a pivotal role in advancing 3D printing for biomedical applications, influencing the biocompatibility, mechanical properties, and functionality of printed constructs. This Special Issue of *Materials* highlights the latest innovations in material development for biomedical 3D printing. We invite contributions on novel biomaterials, including hydrogel-based bioinks, nanocomposite-reinforced scaffolds, biodegradable polymers, and bioactive ceramics designed for enhanced cell interactions and tissue regeneration. Special emphasis is placed on multi-material printing strategies, functionalized surfaces, and stimuli-responsive formulations that improve the performance of printed biomedical structures.

Guest Editors

Prof. Dr. Mariana Ionita

Dr. Elena Alina Chiticaru

Dr. George Mihail Vlăsceanu

Deadline for manuscript submissions

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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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