

Special Issue

Printable Biomaterials from Tissue Engineering to Orthopedics: Fabrication, Mechanical Performance, and Biological Behavior

Message from the Guest Editors

This Special Issue aims to provide a forum for the discussion of recent advances in printable biomaterials. The rapid advancements in 3D printing and bioprinting technologies have revolutionized the field of biomaterials, enabling the design and fabrication of complex, customized structures with applications that range from tissue engineering to orthopedic implants. Moreover, the integration of 3D printing with other technologies such as microfluidics and robotics for enhanced fabrication is crucial for the design of novel technologies. This Special Issue will focus on recent advances in printable biomaterials, encompassing their synthesis, characterization, functionalization, and clinical applications. We welcome contributions that explore the full spectrum of printable biomaterials, including hydrogels, bioceramics, polymers, and composite materials designed for tissue regeneration, orthopedic repairs, drug delivery, and other medical applications. Additionally, this Special Issue will focus on the design, synthesis and characterization of bioinks for the 3D bioprinting of tissues and scaffolds.

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