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Design, Processing and Properties of Scaffolds for Tissue and Organ Engineering

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Message from the Guest Editor

In tissue engineering approaches, the scaffold is one of the three essential elements for the in vitro fabrication of biological constructs that restore the structure and function of damaged tissues and organs. This Special issue will highlight recent advances in the design, processing and characterization of scaffolds, together with the efforts and barriers to their transfer into clinical practice. The original research findings and review articles in this Special Issue should provide a comprehensive view of the performance, success and current advances in scaffold science and engineering, as well as inspiration to overcome the challenges identified. Topics of particular interest include, but are not limited to, polymeric, ceramic, metallic and composite scaffolds; top-down and bottom-up processing approaches; scaffolds for soft and hard tissue regeneration; bioactive and intelligent scaffolds; control of porosity and degradation rate; mechanical performance and mechanical biocompatibility; three-dimensional cell culture and cell behavior; surface modification and antimicrobial strategies; non-conventional biomedical applications of scaffolds and legislation.



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Special Issue



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Message from the Editor-in-Chief

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