Integrated design strategy for additively manufactured scaffolds in tissue engineering

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Abstract.
Additive manufacturing technologies allow the fabrication of devices with enhanced and tailored properties.
The crucial role of computer-aided design, reverse engineering, design for additive manufacturing, experimental tests and theoretical analyses has been widely reported in the literature.
The use of integrated design strategies has led to the development of advanced polymeric and nanocomposite scaffolds for tissue engineering.
Accordingly, the basic features of the current research consist of design problems, additive manufacturing, theoretical and experimental investigations.
3D additively manufactured scaffolds with specific hierarchical features were fabricated by FDM (Fused Deposition Modeling)/3D fiber deposition technique and analyzed.