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Nota di contenuto	Poly-Lactic-Acid : A Potential Material for Bio-Printing Applications -- Current challenges and blooms in 3D printing of biomedical devices -- Development of porous scaffold for Bone Tissue Engineering Applications -- Current Advances and Future Pathways of 3D Printing in Bone Tissue Engineering -- Novel applications of FDM 3D printing in science -- Experimental investigations of partial dentures prepared by hybridization of additive manufacturing and chemical vapor smoothing assisted induction casting -- Recent Advances in Additive Manufacturing of Bio-inspired Materials -- 3D Metal Printing a game changer for future manufacturing realm -- 3D Printing in Tissue Engineering: A State of the Art Review of Technologies and Bio-materials -- Designing and additive manufacturing of metallic porous scaffolds for orthopedic implants -- Additive Manufacturing : Current Concepts, Methods And Applications In Oral Health Care -- Computer-aided-design of subject-specific dental instruments for preoperative

virtual planning in orthognathic surgery -- Customization of Electrospinning for Tissue Engineering -- Additive Manufacturing of Bio-materials -- 3D Printing: Blooms, Challenges and Advantages of additive manufacturing over traditional manufacturing -- Thermal inkjet 3D printing of metals and alloys: current status and challenges.

Sommario/riassunto

This book gives a comprehensive overview of the rapidly evolving field of three-dimensional (3D) printing, and its increasing applications in the biomedical domain. 3D printing has distinct advantages like improved quality, cost-effectiveness, and higher efficiency compared to traditional manufacturing processes. Besides these advantages, current challenges and opportunities regarding choice of material, design, and efficiency are addressed in the book. Individual chapters also focus on select areas of applications such as surgical guides, tissue regeneration, artificial scaffolds and implants, and drug delivery and release. This book will be a valuable source of information for researchers and professionals interested in the expanding biomedical applications of 3D printing.