1. Record Nr. UNINA990003268440403321

Autore	Giuliani, Maria
Titolo	ITALIA
Pubbl/distr/stampa	Napoli : I.G.I., 1985 (3 copie)
Edizione	[1]
Descrizione fisica	pp.214
Disciplina	074.001
Locazione	DECGE
Collocazione	074.001.GIU
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911020367703321

Autore	Sharma Bhasha
Titolo	Sustainable 3D Printing for Innovative Biopolymer Production and Applications
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2025 ©2025
ISBN	9781119792291 1119792290 9781119792307 1119792304 9781119792314 1119792312
Edizione	[1st ed.]
Descrizione fisica	1 online resource (263 pages)
Altri autori (Persone)	PaniBalaram ShekharShashank OkolieJude A
Disciplina	620.192
Soggetti	Biopolymers Three-dimensional printing
Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Series Page -- Title Page -- Copyright Page -- Contents -- Preface -- Chapter 1 The Framework of the Breakthroughs in the 3D Printing Technique -- Acronyms -- 1.1 Outlook: From Cradle to Grave -- 1.2 Understanding 3D Printing -- 1.2.1 The Fundamental Process of 3D Printing Technology -- 1.3 Fringe Benefits of 3D Printing Technology -- 1.4 Compendium of Materials Employed as Matrix -- 1.5 A Paradigm in 3D Printing Technology: Eminent Innovations for Mankind -- 1.6 Limitations of 3D Printing Innovation -- 1.7 Conclusion and the Way Forward -- References -- Chapter 2 Delineating the Techniques Employed for the Fabrication of Sustainable Polymers via 3D Printing Phenomena -- 2.1 Introduction -- 2.2 3D Printing Techniques -- 2.2.1 Fused Deposition Modeling (FDM) -- 2.2.2 Stereolithography (SLA) -- 2.2.3 Digital Light Processing (DLP) -- 2.2.4 Selective Laser Sintering (SLS) -- 2.2.5 Laminated Object Manufacturing (LOM) -- 2.2.6 PolyJet Printing -- 2.2.7 Powder Bed and Inkjet Head 3D Printing (3DP) -- 2.2.8 3D Plotting/Direct-Write -- 2.3 Conclusion -- References
Sommario/riassunto	This book highlights 3D-printed biopolymers' advancements and sustainability, exploring cutting-edge research and real-world applications. Biopolymers have garnered global interest due to environmental concerns and are widely utilized in applications such as biomedicine, food, textiles, and cosmetics. Techniques like 3D printing have been extensively studied to fabricate reliable and efficient products, particularly in tissue engineering. These techniques enable the production of materials with complex structures and diverse functional groups. The book provides a comprehensive account of contemporary advancements in 3D-printed biopolymers, emphasizing their role in promoting sustainability and supporting the circular economy. Featuring meticulously curated chapters by leading scientists, it integrates diverse disciplines, including green biopolymers, nanotechnology, functionalization techniques, and material synthesis, offering a holistic understanding of the field. Several chapters delve into 3D printing processing techniques and their applications in areas such as water purification, energy storage, and biomedical advancements. Additionally, the book addresses progress in biopolymer technology, exploring its challenges and future prospects. Audience This book is ideal for industrial manufacturers, environmental chemists, materials and biopolymer scientists, and researchers in industries such as biomedicine, food, textiles, packaging, and cosmetics.