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Descrizione fisica	1 online resource (172 pages)
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Soggetti	Biomedical engineering Nanotechnology Cancer research Nanochemistry Water pollution Biomedical Engineering/Biotechnology Cancer Research Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Nanotecnologia Ciències de la salut Llibres electrònics
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Nota di contenuto	Chapter 1: Advancements of nanotechnology in diagnostic applications -- Chapter : 2: Polycaprolactone-based nanofibers and their in-vitro and in-vivo applications in bone tissue engineering -- Chapter 3: Nanocamptothecins as new generation pharmaceuticals for treatment of diverse cancers: Overview on a Natural product to Nanomedicine. – Chapter 4: Smart biomaterials from electrospun chitosan nanofibers by functionalization and blending in biomedical applications -- Chapter 5: Unique properties of the gold nanoparticles: Synthesis, functionalization and applications -- Chapter 6 : Nanotechnology and diabetes management: Recent advances and future perspectives --

	Chapter 7: Recent advances in the emergence of nanorobotics in medicine -- Chapter 8: Composite of ceramic and polymeric nanofibers for photocatalytic degradation of dairy effluent.
Sommario/riassunto	This book highlights the wide applications of nanomaterials in healthcare and environmental remediation. Presenting nano-based materials that positively influence the growth and proliferation of cells present in soft and hard tissue and are used for the regeneration bone tissue and/or suppression of cancer cells, it also discusses the natural products that can be incorporated in nanofibers for the treatment of cancer. Further, it describes the use of blending and functionalization to produce chitosan nanofibers for biomedical applications, and reviews the role of plasma-enhanced gold nanoparticles in diagnostics and therapeutics. Lastly, the book also introduces various nanotechnology approaches for the removal of waste metabolites in drinking water, and explores the emerging applications of nanorobotics in medicine. Given its scope, this book is a valuable resource for scientists, clinicians, engineers and researchers aiming to gain a better understanding of the various applications of nanotechnology.