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Autore	Kala Deepak
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Collana	Smart Nanomaterials Technology, , 3004-8281
Altri autori (Persone)	KumarHarsh AkhtarNadeem
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Nota di contenuto	The Basics of Nanosensors -- Nanosensor Fabrication Techniques -- Principles of Nanosensor Operation -- Nanomaterials for Nanosensor Construction -- Nanosensors for Disease Diagnostics -- Nanosensor for Drug Delivery -- Nanosensors for Theranostics -- Nanosensors for Personalized Medicine -- Nanosensors in Wearable Health Devices -- Nanosensors for breath sensing -- Nanosensors for Point-of-Care Testing -- Nanosensor Technology in Telemedicine -- Nanosensors in Neural Health and Brain-Machine Interfaces -- AI-Enhanced Nanosensors for Advanced Diagnostics -- The Future of Biological Imaging: Nanosensors -- Future Prospects of Nanosensors in Health Sectors -- Ethical and Safety Considerations of Nanosensors -- Regulatory Challenges and Approvals.
Sommario/riassunto	This book highlights the significance of nanosensors for applications in the biomedical and healthcare sector. The topics emphasize the fundamental principles of nanosensors, their fabrication process, and their applications in different areas, such as biosensing, point-of-care

(POC) development, drug delivery, biomedical imaging, and tissue engineering. The chapters cover the advancements in these areas by considering personalized medicine, telemedicine, and artificial intelligence (AI)-driven biosensing strategies. The book not only focuses on the advancements, but also highlights the challenges in this area from both technical and regulatory perspectives. Its content is written by experienced subject experts in a manner suited to the general public and researchers who are interested in nanotechnology and its applications in biomedical.