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Nota di contenuto	Silicon Photonic-Wire Biochips -- Refractive Index Sensing Using Nanoscale Slot Waveguide Cavities -- Photonic Crystal Biomedical Sensors -- Sensors Based on Optical Fibre Microwires And Related Resonators -- Plasmonic Metamaterials for Sensing -- Long Range Plasmonic Waveguide Sensors -- Photonic Crystal Biosensor Chip for Label-Free Detection of Bacteria -- Planar Optofluidics in Biosensing Applications -- Optofluidic Biosensing -- Perspectives on the Use of Optical Forces for On-Chip Particle Delivery and Sensing.
Sommario/riassunto	This book provides wide-ranging coverage of current developments in biomedical sensing based on photonic techniques. Biomedical sensing is a dynamic topic that promises to deliver much in the future evolution of medical diagnostics, delivering advanced tools for fundamental research in biology at the micrometre and nanometre scales. The book explores a variety of alternative physical and biological methodologies that have become available for application, such as plasmonic sensors and photonic crystal biosensors. At the same time, it addresses issues that potentially limit the capability of biomedical optical sensing techniques, while reviewing the state-of-the-art in biomedical optical sensing for the future work that will lead to near-universal applications of such techniques. Edited and written by leading experts in this domain, this book is ideal as a comprehensive manual for researchers and graduate students.

