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Nota di contenuto	Section 1 - Optics: Optical Instrumentation, Metrology and Techniques, Optometry, Adaptive Optics -- Section 2 - Photonics: Nonlinear Optical Phenomena, Photonics for Energy, Photonic and Optoelectronic Devices, Optical Communications, Optical Amplifiers, Switching Photonics -- Section 3 - Optical Materials and Systems: Semiconductor-Based Optical Materials, Optical Glasses, Organic and Bio-Photonic Devices, Sensors and Imaging Devices, Photorefractive Materials and Devices, Nanophotonic Materials -- Section 4 - Fiber Optics: Fiber Optics Technology Sensors and Devices -- Section 5 - Lasers: Plasma Technology, High-Intensity Lasers and High-Field Phenomena, Quantum Information, Fibre Lasers.
Sommario/riassunto	This book discusses both the theoretical and practical aspects of optics, photonics and lasers, presenting new methods, technologies,

advanced prototypes, systems, tools and techniques as well as a general survey indicating future trends and directions. The main fields addressed include nonlinear optical phenomena, photonics for energy, high-field phenomena, photonic and optoelectronic sensors and devices, optical communications, biomedical optics and photonics. It also covers a large spectrum of materials, ranging from semiconductor-based optical materials to optical glasses, organic materials, photorefractive materials and nanophotonic materials, as well as applications such as metrology, optometry, adaptive optics, all optical instrumentation, optical communications, quantum information, lighting technologies, energy harvesting and optically based biomedical diagnosis and therapeutics.