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Nota di contenuto	Mid-Infrared 2—5 ?m Heterojunction Laser Diodes -- High Performance Quantum Cascade Lasers and Their Applications -- Mid-IR Difference Frequency Generation -- Pulsed Mid-IR Optical Parametric Oscillators -- Mid-Infrared Ultrafast and Continuous- Wave Optical Parametric Oscillators -- Mid-Infrared Fiber Lasers -- Crystalline Mid-Infrared Lasers -- Crystalline and Fiber Raman Lasers -- Narrow-Linewidth Tunable Terahertz-Wave Sources Using Nonlinear Optics -- Mid-Infrared and THz Coherent Sources Using Semiconductor-Based Materials -- Mid-Infrared Laser Applications in Spectroscopy -- Mid-IR Laser Applications in Medicine.
Sommario/riassunto	The book describes the most advanced techniques for generating coherent light in the mid-infrared region of the spectrum. These techniques represent diverse areas of photonics and include heterojunction semiconductor lasers, quantum cascade lasers, tunable crystalline lasers, fiber lasers, Raman lasers, and optical parametric

laser sources. Offering authoritative reviews by internationally recognized experts, the book provides a wealth of information on the essential principles and methods of the generation of coherent mid-infrared light and on some of its applications. The instructive nature of the book makes it an excellent text for physicists and practicing engineers who want to use mid-infrared laser sources in spectroscopy, medicine, remote sensing and other fields, and for researchers in various disciplines requiring a broad introduction to the subject.