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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Chapter 1 Introduction -- Chapter 2 Characteristics of Semiconductor Laser -- Chapter 3 Linewidth and Noise of Semiconductor Laser -- Chapter 4 Monolithic Single Frequency Semiconductor Lasers -- Chapter 5 External Cavity Semiconductor Lasers -- Chapter 6 Frequency Stabilization of Semiconductor Lasers -- Chapter 7 Frequency Sweeping -- Chapter 8 Frequency Translation and Optical Phase Locked Loop -- Chapter 9 Applications of Single Frequency Semiconductor Lasers.
Sommario/riassunto	This book systematically introduces the single frequency semiconductor laser, which is widely used in many vital advanced technologies, such as the laser cooling of atoms and atomic clock, high-precision measurements and spectroscopy, coherent optical communications, and advanced optical sensors. It presents both the fundamentals and characteristics of semiconductor lasers, including basic F-P structure and monolithic integrated structures; interprets laser noises and their measurements; and explains mechanisms and

technologies relating to the main aspects of single frequency lasers, including external cavity lasers, frequency stabilization technologies, frequency sweeping, optical phase locked loops, and so on. It paints a clear, physical picture of related technologies and reviews new developments in the field as well. It will be a useful reference to graduate students, researchers, and engineers in the field.
