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Nota di bibliografia	Includes bibliographical references and index.
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Sommario/riassunto	This book explains physics under the operating principles of semiconductor lasers in detail based on the experience of the author, dealing with the first manufacturing of phase-shifted DFB-LDs and recent research on transverse modes. The book also bridges a wide gap between journal papers and textbooks, requiring only an undergraduate-level knowledge of electromagnetism and quantum mechanics, and helps readers to understand journal papers where definitions of some technical terms vary, depending on the paper. Two definitions of the photon density in the rate equations and two definitions of the phase-shift in the phase-shifted DFB-LD are explained, and differences in the calculated results are indicated,

depending on the definitions. Readers can understand the physics of semiconductor lasers and analytical tools for Fabry-Perot LDs, DFB-LDs, and VCSELs and will be stimulated to develop semiconductor lasers themselves.
