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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Basic Concepts -- Recombination Mechanisms and Gain -- Epitaxial Growth and Amplifier Designs -- Low Reflectivity Facet Designs -- Amplifier Rate Equations and Operating Characteristics -- Photonic Integrated Circuit Using Amplifiers -- Functional Performance -- Optical Logic Operations -- Optical Logic Circuits -- Quantum Dot Amplifiers -- Reflective Semiconductor Optical Amplifier (RSOA) -- Two-photon Absorption in Amplifiers -- Semiconductor Optical Amplifier as Broadband Source.
Sommario/riassunto	This invaluable look provides a comprehensive treatment of design and applications of semiconductor optical amplifiers (SOA). SOA is an important component for optical communication systems. It has applications as in-line amplifiers and as functional devices in evolving optical networks. The functional applications of SOAs were first studied in the early 1990's, since then the diversity and scope of such applications have been steadily growing. This is the second edition of a book on Semiconductor Optical Amplifiers first published in 2006 by the same authors. Several chapters and sections rep