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Titolo	Solar-Pumped Lasers : With Examples of Numerical Analysis of Solid-State Lasers // by Dawei Liang, Joana Almeida, Cláudia Vistas, Bruno Tibúrcio, Dário Garcia
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Brief History of Solar-Pumped Lasers -- Primary Solar Concentrators -- Solar-pumped Solid-State Laser Theory -- Properties of Solid-State Laser Materials for Solar-Pumped Lasers -- Numerical Tools for Solid-State Laser Design -- Multimode Solar-Pumped Lasers -- High Brightness Solar-Pumped Lasers -- Solar Tracking Errors in Solar-Pumped Lasers.
Sommario/riassunto	This textbook is a comprehensive review of many different areas in solar-pumped lasers design and characterization. It enables readers to develop their skills in general solid-state laser design and solar collector design and provides numerous solved exercises at the end of each chapter to further this development. This book begins by introducing the brief history of solar-pumped laser and its potential applications. It explains the basic theories of imaging and non-imaging primary, secondary, and tertiary solar concentrators. It discusses solar-

pumped solid-state laser theory and solar-to-laser power conversion efficiencies. There are chapters dedicated to ZEMAX and LASCAD numerical simulation tools, to help develop readers' skills in innovative solid-state laser design. This book is one of the first books to relate concentrated solar energy technologies to solid-state laser technologies and is therefore of interest to students, academics, engineers, and laser and optical system designers.
