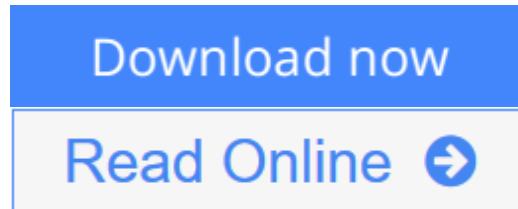


Handbook of Solid-State Lasers: Materials, Systems and Applications (Woodhead Publishing Series in Electronic and Optical Materials)

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Handbook of Solid-State Lasers: Materials, Systems and Applications (Woodhead Publishing Series in Electronic and Optical Materials) From Brand: Woodhead Publishing

Solid-state lasers which offer multiple desirable qualities, including enhanced reliability, robustness, efficiency and wavelength diversity, are absolutely indispensable for many applications. The Handbook of solid-state lasers reviews the key materials, processes and applications of solid-state lasers across a wide range of fields.

Part one begins by reviewing solid-state laser materials. Fluoride laser crystals, oxide laser ceramics, crystals and fluoride laser ceramics doped by rare earth and transition metal ions are discussed alongside neodymium, erbium and ytterbium laser glasses, and nonlinear crystals for solid-state lasers. Part two then goes on to explore solid-state laser systems and their applications, beginning with a discussion of the principles, powering and operation regimes for solid-state lasers. The use of neodymium-doped materials is considered, followed by system sizing issues with diode-pumped quasi-three level materials, erbium glass lasers, and microchip, fiber, Raman and cryogenic lasers. Laser mid-infrared systems, laser induced breakdown spectroscopy and the clinical applications of surgical solid-state lasers are also explored. The use of solid-state lasers in defense programs is then reviewed, before the book concludes by presenting some environmental applications of solid-state lasers.

With its distinguished editors and international team of expert contributors, the Handbook of solid-state lasers is an authoritative guide for all those involved in the design and application of this technology, including laser and materials scientists and engineers, medical and military professionals, environmental researchers, and academics working in this field.

- Reviews the materials used in solid-state lasers
- Explores the principles of solid-state laser systems and their applications
- Considers defence and environmental applications

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Editorial Review

Review

I hope that this book will be widely used and will stimulate new, groundbreaking ideas both in laser development and applications., Professor Norbert Kroo, Hungarian Academy of Sciences (from the Foreword)

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Eugene Shklovsky is Senior Laser Scientist at Optech Inc, Toronto, Canada.

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Brian Dunlap:

The reason why? Because this Handbook of Solid-State Lasers: Materials, Systems and Applications (Woodhead Publishing Series in Electronic and Optical Materials) is an unordinary book that the inside of the guide waiting for you to snap that but latter it will distress you with the secret this inside. Reading this book beside it was fantastic author who have write the book in such amazing way makes the content within easier to understand, entertaining technique but still convey the meaning totally. So , it is good for you for not hesitating having this nowadays or you going to regret it. This unique book will give you a lot of advantages than the other book possess such as help improving your proficiency and your critical thinking means. So , still want to hold up having that book? If I were being you I will go to the guide store hurriedly.

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