# Lasers and Optical Fibers in Medicine (Physical Techniques in Biology and Medicine)

*Abraham Katzir*
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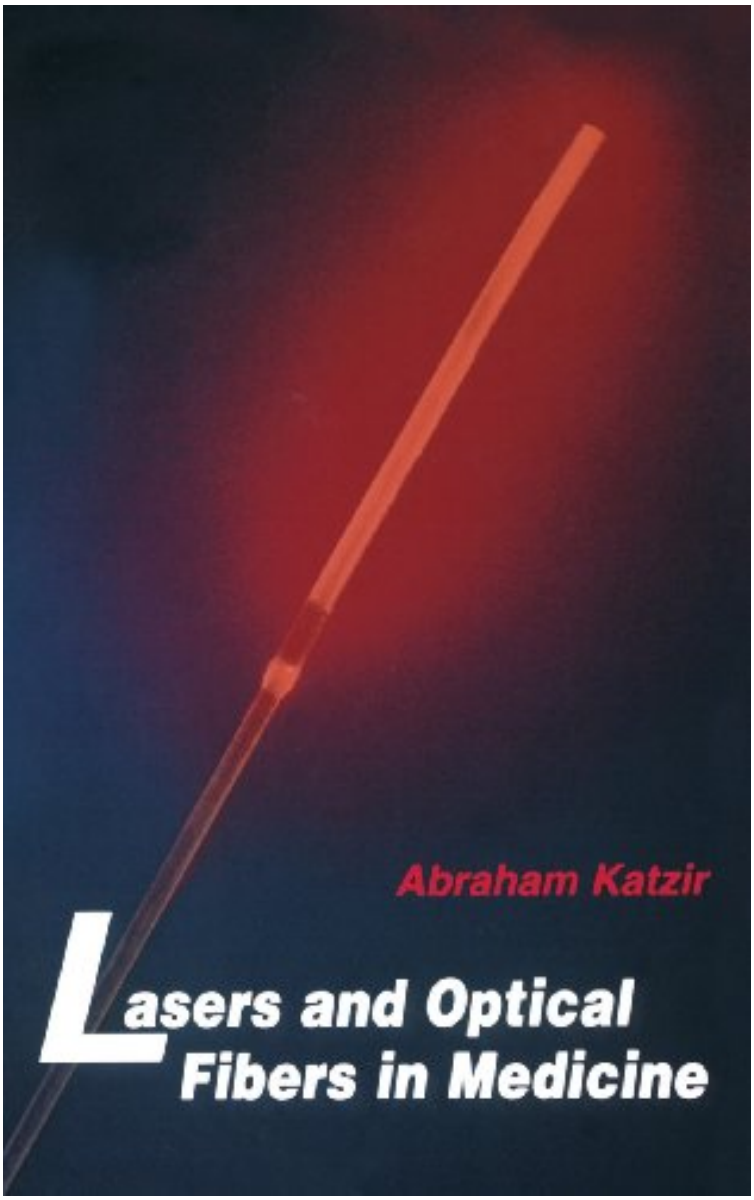




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**Abraham Katzir : Lasers and Optical Fibers in Medicine (Physical Techniques in Biology and Medicine)** before purchasing it in order to gage whether or not it would be worth my time, and all praised Lasers and Optical Fibers in

Medicine (Physical Techniques in Biology and Medicine):

The increasing use of fiber optics in the field of medicine has created a need for an interdisciplinary perspective of the technology and methods for physicians as well as engineers and biophysicists. This book presents a comprehensive examination of lasers and optical fibers in an hierarchical, three-tier system. Each chapter is divided into three basic sections: the Fundamentals section provides an overview of basic concepts and background; the Principles section offers an in-depth engineering approach; and the Advances section features specific information on systems and biophysical parameters. All those interested in the fields of lasers and fiber optics will find this book fascinating and instructive reading.

"Dr. Katzir, an acknowledged expert on the use of optical fibers in medicine, has written his book for the novice and expert alike... [He] has provided many clear examples and figures to explain fundamental concepts. Furthermore, the emphasis in the fundamentals sections is on conceptual understanding; mathematical rigor is generally left to more appropriate texts... The book is extremely well illustrated and easy to read throughout. The technical jargon is minimal and the emphasis on concepts is universal. The instructive nature of the book makes this an excellent introductory text for the engineering and biophysics student, as well as the postdoctoral/medical fellow who is new to this interdisciplinary field of lasers and optical fibers in medicine. It should also serve as a good reference to this rather broad field."--OPTICAL ENGINEERING"This is a really excellent book, dealing with almost all aspects of the technology and application of medical lasers and optical fibres. It is very well illustrated with numerous line drawings and photographs, and provides a thoroughly readable and informative text packed with useful information for the physicist and clinician alike."--Tim N. Mills, Lasers in MEDICAL SCIENCE"For each of the several applications of lasers and optical fibers in medicine, explains the fundamental science, the engineering aspects, and the working systems and biophysical parameters. For physicians, engineers, and biophysicists, provides a comprehensive background for diagnostic and therapeutic lasers and endoscopy. Most chapters deal with the technology or the interaction between lasers and tissue, but the last focuses on the clinical applications in specific body systems. Includes a glossary with pronunciations."--SCI TECH BOOK NEWS"This book is an excellent introduction to a rapidly expanding field of scientific endeavor. The book is well-written and easy to read. The author knows his subject and knows how to explain it."--PHYSICS TODAY"The approach and language of the author are convincing testaments to his ability to convey concepts in a very clear fashion. Katzir, who has been very active in the area of medical applications of lasers and fibers, has done an excellent job...."--OPTICS PHOTONICS NEWS"This is a really excellent book, dealing with almost all aspects of the technology and application of medical lasers and optical fibres. ...A thoroughly readable and informative text packed with useful information for the physicist and clinician alike."--LASERS IN MEDICAL SCIENCEFrom the Back CoverThe increasing use of lasers and fiber optics in medicine has created a need for an interdisciplinary perspective on their technology and methods. Written for physicians, engineers, and biophysicists, this book presents a comprehensive examination of lasers and optical fibers in a hierarchical organization. Each chapter is divided into three basic sections: the Fundamentals section provides an overview of basic concepts and background; the Principles section offers an in-depth engineering approach; and the Advances section features specific information on systems and biophysical parameters.Extensive coverage of how lasers interact with tissue, how optical fibers are used in endoscopic imaging, and how lasers and their fiber-optic systems are utilized in various medical disciplines is included. Those interested in the fields of lasers and fiber optics will find this book fascinating and instructive reading.