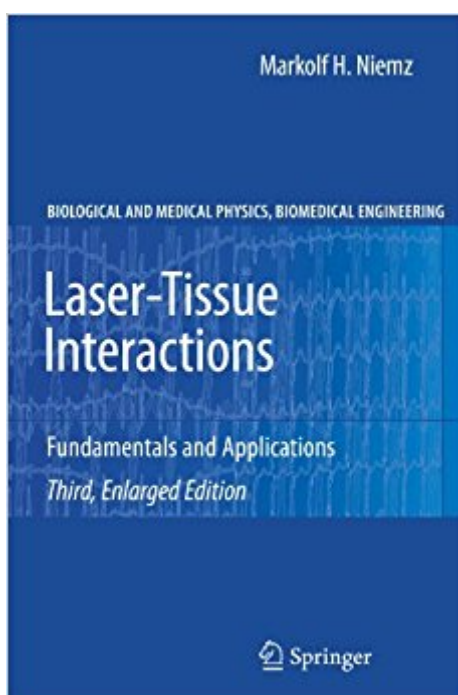


The book was found

# Laser-Tissue Interactions: Fundamentals And Applications (Biological And Medical Physics, Biomedical Engineering)



## Synopsis

Medical practitioners, scientists and graduate students alike will find this exhaustive survey a vital learning tool. It provides a thorough description of the fundamentals and applications in the field of laser-tissue interactions. Basic concepts such as the optical and thermal properties of tissue, the various types of tissue ablation, and optical breakdown and its related effects are treated in detail. The author pays special attention to mathematical tools (Monte Carlo simulations, the Kubelka-Munk theory etc.) and approved techniques (photodynamic therapy, laser-induced interstitial thermotherapy etc.). A section on applications reviews clinically relevant methods in modern medicine using the latest references.

## Book Information

Series: Biological and Medical Physics, Biomedical Engineering

Paperback: 308 pages

Publisher: Springer; 3rd edition (October 11, 2007)

Language: English

ISBN-10: 3540721916

ISBN-13: 978-3540721918

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: 3.4 out of 5 stars 3 customer reviews

Best Sellers Rank: #2,651,472 in Books (See Top 100 in Books) #25 in Books > Textbooks > Medicine & Health Sciences > Medicine > Special Topics > Lasers in Medicine #37 in Books > Medical Books > Medicine > Lasers in Medicine #73 in Books > Textbooks > Medicine & Health Sciences > Reference > Instruments & Supplies

## Customer Reviews

From the reviews: "... the author has provided a comprehensive background with examples describing the basics of laser-tissue interaction ... an extremely useful reference companion."

Lasers in Surgery and Medicine From the reviews of the third edition: "This book has become a standard reference and textbook . It provides a thorough description of the fundamentals and applications of modern laser medicine. | Numerous research photographs, illustrations, tables, and comprehensive summaries make this book a useful guide for graduate students, scientists, and medical practitioners. ... There is no doubt that this book will fulfill a need for all of us working in the field of lasers in medicine, and I expect that it will be received very well." (Yvon Renotte, Physicalia,

Laser "Tissue Interactions by M.H.Niemz has become a standard reference and textbook in this rapidly growing field. It provides a thorough description of the fundamentals and applications of modern laser medicine. Basic concepts, such as optical and thermal properties of tissue, the various types of tissue ablation, and optical breakdown and its related effects, are treated in detail. Special attention is given to mathematical tools (Monte Carlo simulations, the Kubelka "Munk theory etc.) and well-proven techniques (photodynamic therapy, laser "induced interstitial thermotherapy, etc.). The part on applications reviews clinically-relevant methods in laser treatment using the latest references. The last chapter covers today's standards of laser safety with a careful selection of essential guidelines published by the Laser Institute of America. Numerous research photographs, illustrations, tables, and comprehensive summaries make this book a useful guide for graduate students, scientists, and medical practitioners. This third edition has been completely revised, and expanded, including the addition of 40 comprehensive questions and solutions providing readers the chance to immediately test their understanding and also to prepare for related exams. From the reviews of an earlier edition

"... the author has provided a comprehensive background with examples describing the basics of laser-tissue interaction ... an extremely useful reference companion." Lasers in Surgery and Medicine

This book provides a concise review of laser-tissue interaction. It begins by introducing a brief theoretical foundation in tissue optics and moves on to describing various interaction and ablation mechanisms. The chapters are very well organized, the materials are well presented, and equations are used only when necessary. A large chapter is dedicated to introducing various medical applications of lasers in different clinical fields. The materials in this book are very suitable for scientists, engineers, and physicians involved in biomedical optics. However, since the release of this book, significant progress has been made in this area, which requires the author to substantially update information and development in the next edition.

This is an excellent book for anyone working in this field. The book covers everything from the basic theory to the latest applications. Detailed descriptions of each type of interaction mechanism and

detailed references on each type of application are given. The second edition has been completely revised and updated. Highest ratings by Prof. Berns and Prof. van Gemert in their own classes. A MUST for your book shelf.

I placed an order on Aug, 21st, but now it is Sep, 21st already...I have not received my book!!!!!!!!!!!!!!

[Download to continue reading...](#)

Laser-Tissue Interactions: Fundamentals and Applications (Biological and Medical Physics, Biomedical Engineering) Tissue Engineering II: Basics of Tissue Engineering and Tissue Applications (Advances in Biochemical Engineering/Biotechnology) Laser Technology in Biomimetics: Basics and Applications (Biological and Medical Physics, Biomedical Engineering) Biomedical Engineering Principles Of The Bionic Man (Series on Bioengineering & Biomedical Engineering) (Bioengineering & Biomedical Engineering (Paperback)) Biomedical Ethics for Engineers: Ethics and Decision Making in Biomedical and Biosystem Engineering (Biomedical Engineering Series) Tissue Engineering I: Scaffold Systems for Tissue Engineering (Advances in Biochemical Engineering/Biotechnology) (v. 1) Biomedical Engineering Fundamentals (The Biomedical Engineering Handbook, Fourth Edition) (Volume 1) Introduction to Medical Imaging: Physics, Engineering and Clinical Applications (Cambridge Texts in Biomedical Engineering) American National Standard for Safe Use of Lasers: ANSI Z136.1-2000 (ANSI (Laser Institute of America)) (ANSI (Laser Institute of America)) (ANSI (Laser Institute of America)) 4D Modeling and Estimation of Respiratory Motion for Radiation Therapy (Biological and Medical Physics, Biomedical Engineering) The Physical Basis of Bacterial Quorum Communication (Biological and Medical Physics, Biomedical Engineering) The Physics Of Laser Plasma Interactions (Frontiers in Physics) NEW! PICOSURE MEDICAL LASER TATTOO REMOVAL SYSTEM: FINALLY A NO B.S. GUIDE TO THE WORLD'S NEWEST/LATEST MEDICAL LASER TATTOO REMOVAL SYSTEM Biomedical Applications of Polyurethanes (Tissue Engineering Intelligence Unit) An Introduction to Modeling of Transport Processes: Applications to Biomedical Systems (Cambridge Texts in Biomedical Engineering) Biomedical Engineering: Bridging Medicine and Technology (Cambridge Texts in Biomedical Engineering) Biomedical Engineering for Global Health (Cambridge Texts in Biomedical Engineering) An Introduction to Rehabilitation Engineering (Series in Medical Physics and Biomedical Engineering) Titanium in Medicine: Material Science, Surface Science, Engineering, Biological Responses and Medical Applications (Engineering Materials) Engineering Physics: Fundamentals & Modern Applications (Physics)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)