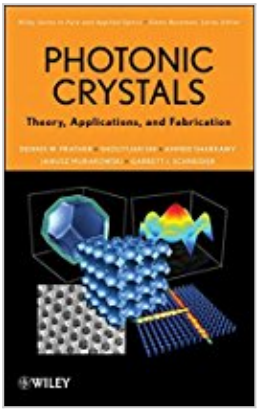

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics)

By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider

The Only Source You Need for Understanding the Design and Applications of Photonic Crystal-Based Devices

This book presents in detail the fundamental theoretical background necessary to understand the unique optical phenomena arising from the crystalline nature of photonic-crystal structures and their application across a range of disciplines. Organized to take readers from basic concepts to more advanced topics, the book covers:

- Preliminary concepts of electromagnetic waves and periodic media
- Numerical methods for analyzing photonic-crystal structures
- Devices and applications based on photonic bandgaps
- Engineering photonic-crystal dispersion properties
- Fabrication of two- and three-dimensional photonic crystals

The authors assume an elementary knowledge of electromagnetism, vector calculus, Fourier analysis, and complex number analysis. Therefore, the book is appropriate for advanced undergraduate students in physics, applied physics, optics, electronics, and chemical and electrical engineering, as well as graduate students and researchers in these fields.

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics)

By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider

The Only Source You Need for Understanding the Design and Applications of Photonic Crystal-Based Devices

This book presents in detail the fundamental theoretical background necessary to understand the unique optical phenomena arising from the crystalline nature of photonic-crystal structures and their application across a range of disciplines. Organized to take readers from basic concepts to more advanced topics, the book covers:

- Preliminary concepts of electromagnetic waves and periodic media
- Numerical methods for analyzing photonic-crystal structures
- Devices and applications based on photonic bandgaps
- Engineering photonic-crystal dispersion properties
- Fabrication of two- and three-dimensional photonic crystals

The authors assume an elementary knowledge of electromagnetism, vector calculus, Fourier analysis, and complex number analysis. Therefore, the book is appropriate for advanced undergraduate students in physics, applied physics, optics, electronics, and chemical and electrical engineering, as well as graduate students and researchers in these fields.

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider Bibliography

- Sales Rank: #3911607 in Books
- Published on: 2009-05-26
- Original language: English
- Number of items: 1
- Dimensions: 9.55" h x .95" w x 6.30" l, 1.50 pounds
- Binding: Hardcover
- 405 pages

Editorial Review

From the Back Cover

The Only Source You Need for Understanding the Design and Applications of Photonic Crystal-Based Devices

This book presents in detail the fundamental theoretical background necessary to understand the unique optical phenomena arising from the crystalline nature of photonic-crystal structures and their application across a range of disciplines. Organized to take readers from basic concepts to more advanced topics, the book covers:

- Preliminary concepts of electromagnetic waves and periodic media
- Numerical methods for analyzing photonic-crystal structures
- Devices and applications based on photonic bandgaps
- Engineering photonic-crystal dispersion properties
- Fabrication of two- and three-dimensional photonic crystals

The authors assume an elementary knowledge of electromagnetism, vector calculus, Fourier analysis, and complex number analysis. Therefore, the book is appropriate for advanced undergraduate students in physics, applied physics, optics, electronics, and chemical and electrical engineering, as well as graduate students and researchers in these fields.

About the Author

Dennis W. Prather, PhD, is a Professor in the Department of Electrical and Computer Engineering at the University of Delaware, where he leads the Laboratory for Nanoscale and Integrated Photonic Systems. Professor Prather is a Fellow of SPIE and OSA.

Users Review

From reader reviews:

Brandon Phelan:

The book Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) give you a sense of feeling enjoy for your spare time. You may use to make your capable much more increase. Book can being your best friend when you getting stress or having big problem together with your subject. If you can make examining a book Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) to be your habit, you can get considerably more advantages, like add your own personal capable, increase your knowledge about a number of or all subjects. You may know everything if you like open up and read a publication Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics). Kinds of book are several. It means that, science guide or encyclopedia or some others. So , how do you think about this publication?

Adam McGrath:

What do you regarding book? It is not important along with you? Or just adding material when you want something to explain what you problem? How about your free time? Or are you busy individual? If you don't have spare time to try and do others business, it is make you feel bored faster. And you have extra time? What did you do? All people has many questions above. The doctor has to answer that question because just their can do that. It said that about book. Book is familiar on every person. Yes, it is proper. Because start from on kindergarten until university need this particular Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) to read.

Karl Irwin:

This Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) book is just not ordinary book, you have it then the world is in your hands. The benefit you get by reading this book will be information inside this book incredible fresh, you will get info which is getting deeper an individual read a lot of information you will get. This Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) without we recognize teach the one who examining it become critical in imagining and analyzing. Don't possibly be worry Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) can bring whenever you are and not make your handbag space or bookshelves' turn out to be full because you can have it with your lovely laptop even telephone. This Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) having excellent arrangement in word along with layout, so you will not sense uninterested in reading.

Ali Ellison:

This Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) is great book for you because the content that is certainly full of information for you who also always deal with world and still have to make decision every minute. This particular book reveal it data accurately using great arrange word or we can point out no rambling sentences included. So if you are read that hurriedly you can have whole info in it. Doesn't mean it only provides straight forward sentences but tough core information with beautiful delivering sentences. Having Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) in your hand like getting the world in your arm, information in it is not ridiculous one particular. We can say that no reserve that offer you world with ten or fifteen small right but this publication already do that. So , this is good reading book. Hey there Mr. and Mrs. occupied do you still doubt in which?

Murakowski, Garrett Schneider #2W3STLQ964U

Read Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider for online ebook

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider books to read online.

Online Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider ebook PDF download

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider Doc

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider Mobipocket

Photonic Crystals, Theory, Applications and Fabrication (Wiley Series in Pure and Applied Optics) By Dennis W Prather, Ahmed Sharkawy, Shouyuan Shi, Janusz Murakowski, Garrett Schneider EPub