

# Optical Metamaterials: Fundamentals and Applications

Wenshan Cai, Vladimir Shalaev



Click here if your download doesn"t start automatically

### **Optical Metamaterials: Fundamentals and Applications**

Wenshan Cai, Vladimir Shalaev

**Optical Metamaterials: Fundamentals and Applications** Wenshan Cai, Vladimir Shalaev

This volume details recent advances in the study of optical metamaterials, ranging from fundamental aspects to up to date implementations, in one unified treatment. In this second edition, the authors have completely updated the book and expanded their coverage to include chapters on zero-index, chiral, and hyperbolic metamaterials, metasurfaces, active metamaterials and meta-devices. Important developments and applications such as superlenses and cloaking devices are also treated in detail and made understandable. Optical Metamaterials has been well-received by the optics community--this new edition will continue to serve as a useful reference for both newcomers and advanced researchers in this rapidly evolving field. Winner of the 2014 Joseph W. Goodman Book Writing Award Praise for the previous edition:"...this book is timely bringing to students and other new entrants to the field the most up to date concepts. The authors are amongst the leaders in the field and ideally positioned to write such a comprehensive volume: their enthusiasm shines through every chapter of the text. This book will I am sure play an important part in taking the subject of metamaterials to new heights of invention and application. We should all have a copy on our shelves." – Professor Sir John Pendry, Imperial College London

"This book provides an understandable introduction to the field of optical metamaterials, including all the necessary background and a comprehensive review of this new paradigm in the science of light. Professor Shalaev, a world leading expert in optics and metamaterials, and his former student, Dr. Cai, a rising star in his own right, have skillfully developed a volume that will prove important for both experts and students just entering the exciting field of photonic metamaterials and transformation optics. This book will certainly find a place within easy reach on my shelf." – Professor Victor G. Veselago, A.M.Prokhorov Institute of General Physics, Moscow>"This is a nice treatment and a lucid description of the rapidly growing field of optical metamaterials. In this book, Wenshan Cai and Vladimir Shalaev have done a tremendous job in making this exciting scientific topic accessible to those interested in this field. They have discussed its fundamental concepts and potential applications in a clear and engaging way, providing the reader with a fascinating overview of this active area of research. I enjoyed reading this book, and I highly recommend it to all who wish to learn about the optical metamaterials. It tells a fascinating story about this field of optical science and engineering." – Nader Engheta, H. Nedwill Ramsey Professor of Electrical and Systems Engineering, University of Pennsylvania



Read Online Optical Metamaterials: Fundamentals and Applications ...pdf

Download and Read Free Online Optical Metamaterials: Fundamentals and Applications Wenshan Cai, Vladimir Shalaev

## Download and Read Free Online Optical Metamaterials: Fundamentals and Applications Wenshan Cai, Vladimir Shalaev

#### From reader reviews:

#### **Kurt Hooper:**

Why don't make it to become your habit? Right now, try to prepare your time to do the important work, like looking for your favorite publication and reading a e-book. Beside you can solve your short lived problem; you can add your knowledge by the guide entitled Optical Metamaterials: Fundamentals and Applications. Try to face the book Optical Metamaterials: Fundamentals and Applications as your close friend. It means that it can to be your friend when you truly feel alone and beside associated with course make you smarter than before. Yeah, it is very fortuned for you personally. The book makes you far more confidence because you can know every little thing by the book. So, let's make new experience as well as knowledge with this book.

#### **Andrew Hall:**

Here thing why this specific Optical Metamaterials: Fundamentals and Applications are different and reputable to be yours. First of all reading a book is good but it really depends in the content of it which is the content is as delightful as food or not. Optical Metamaterials: Fundamentals and Applications giving you information deeper and in different ways, you can find any publication out there but there is no guide that similar with Optical Metamaterials: Fundamentals and Applications. It gives you thrill looking at journey, its open up your own eyes about the thing this happened in the world which is might be can be happened around you. You can easily bring everywhere like in playground, café, or even in your method home by train. If you are having difficulties in bringing the printed book maybe the form of Optical Metamaterials: Fundamentals and Applications in e-book can be your alternative.

#### **Charles Rowe:**

Do you one among people who can't read satisfying if the sentence chained inside the straightway, hold on guys this specific aren't like that. This Optical Metamaterials: Fundamentals and Applications book is readable by you who hate those perfect word style. You will find the details here are arrange for enjoyable reading through experience without leaving even decrease the knowledge that want to deliver to you. The writer associated with Optical Metamaterials: Fundamentals and Applications content conveys prospect easily to understand by a lot of people. The printed and e-book are not different in the content material but it just different such as it. So, do you even now thinking Optical Metamaterials: Fundamentals and Applications is not loveable to be your top listing reading book?

#### Valerie Beauchamp:

This Optical Metamaterials: Fundamentals and Applications is great publication for you because the content that is certainly full of information for you who all always deal with world and get to make decision every minute. This book reveal it facts accurately using great plan word or we can say no rambling sentences inside it. So if you are read this hurriedly you can have whole info in it. Doesn't mean it only offers you straight

forward sentences but difficult core information with wonderful delivering sentences. Having Optical Metamaterials: Fundamentals and Applications in your hand like keeping the world in your arm, details in it is not ridiculous 1. We can say that no book that offer you world in ten or fifteen tiny right but this e-book already do that. So , this is good reading book. Hi Mr. and Mrs. occupied do you still doubt that?

Download and Read Online Optical Metamaterials: Fundamentals and Applications Wenshan Cai, Vladimir Shalaev #GFTL2UIKO6A

## Read Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev for online ebook

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev 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 Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev books to read online.

# Online Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev ebook PDF download

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev Doc

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev Mobipocket

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev EPub

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev Ebook online

Optical Metamaterials: Fundamentals and Applications by Wenshan Cai, Vladimir Shalaev Ebook PDF