

Electromagnetic Wave Control Techniques of Metasurfaces and Metamaterials

Part of the Advances in Chemical and Materials Engineering Book Series

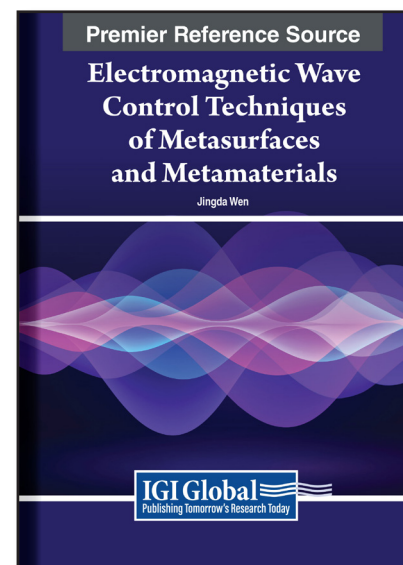
Jingda Wen (Beihang University, China)

Description:

In the ever-evolving landscape of electromagnetic wave control, researchers face the pressing challenge of keeping pace with the rapid advancements in metasurface and metamaterial methods. As these technologies become increasingly integral to various engineering applications, educators and researchers seek a comprehensive resource that outlines the current state of the field and offers insights into its future prospects. **Electromagnetic Wave Control Techniques of Metasurfaces and Metamaterials** emerges as a timely solution, providing a detailed overview and a forward-looking perspective on wave control research using metasurfaces and metamaterials.

With a firm focus on bridging the gap between theory and application, this book meets the critical need for a comprehensive understanding of key topics such as frequency selective surfaces, metasurface and metamaterial absorbers, reflectors, and the integration of deep learning and machine learning in these domains. This book equips readers with the knowledge and tools necessary to tackle real-world challenges in wavefront control, beam steering, and phase control by delving into the intricacies of broadband metasurfaces, metamaterials, and the underlying physics. Furthermore, it explores the unique capabilities of chiral metasurfaces and metamaterials, illuminating their diverse engineering applications and empowering the readers with practical insights.

This book serves as an invaluable resource for engineers, educators, and researchers seeking to navigate the complexities of electromagnetic wave control. Its blend of theoretical insights and practical applications enhances the reader's understanding of metasurfaces and metamaterials and inspires new avenues for research and innovation in this exciting field.



ISBN: 9798369325995

Pages: 300

Copyright: 2024

Release Date: June, 2024

Hardcover: \$315.00

E-Book: \$315.00

**Hardcover +
E-Book:** \$380.00

Topics Covered:

- Beam Steering
- Broadband Metasurface and Metamaterial
- Chiral Metasurface
- Deep Learning Applications
- Engineering Application of Metasurface and Metamaterial
- Frequency Selective Surface
- Machine Learning Applications
- Metasurface and Metamaterial Absorber
- Metasurface and Metamaterial Reflector
- Phase Control
- Physics in Metasurface and Metamaterial
- Wavefront Control

Subject: Science & Engineering

Classification: Edited Reference

Readership Level: Advanced-Academic Level
(Research Recommended)

Research Suitable for: Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

Order Information

Phone: 717-533-8845 x100

Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115

Online Bookstore: www.igi-global.com

Mailing Address: 701 East Chocolate Avenue, Hershey, PA 17033, USA