**Springer**1st
edition1st ed. 2018, XII, 318 p.
104 illus., 95 illus. in color.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-3-319-77518-0

\$ 109,99

Available

Discount group

Professional Books (2)

Product category

Graduate/advanced undergraduate textbook

Series

Springer Series in Optical Sciences

Materials Science : Optical and Electronic Materials

Chipouline, Arkadi, Küppers, Franko, Skolkovo Institute of Science and Technology, Moscow, Russia

Optical Metamaterials: Qualitative Models

Introduction to Nano-Optics and Optical Metamaterials

- Appeals to both experimentalists and theorists who are interested in the physical basics of metamaterials and plasmonics
- Aids learning and teaching with problems and solutions at the end of each topic
- Provides lecture and seminar materials for a one-semester course in optical nanophotonics/optical metamaterials

This textbook bridges the gap between university courses on electrodynamics and the knowledge needed to successfully address the problem of electrodynamics of metamaterials. It appeals to both experimentalists and theoreticians who are interested in the physical basics of metamaterials and plasmonics. Focusing on qualitative fundamental treatment as opposed to quantitative numerical treatment, it covers the phenomena of artificial magnetization at high frequencies, and discusses homogenization procedures and the basics of quantum dynamics in detail. By considering different phenomena it creates a self-consistent qualitative picture to explain most observable phenomena. This allows readers to develop a better understanding of the concepts, and helps to create a conceptual approach, which is especially important in educational contexts. This clearly written book includes problems and solutions for each chapter, which can be used for seminars and homework, as well as qualitative models that are helpful to students.

Order online at [springer.com/booksellers](https://www.springer.com/booksellers)**Springer Nature Customer Service Center LLC**

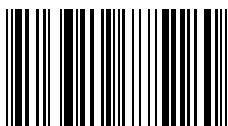
233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

customerservice@springernature.com

ISBN 978-3-319-77518-0 / BIC: TJFD / SPRINGER NATURE: SCZ12000

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.