<<经典光学及其应用>>

图书基本信息

书名:<<经典光学及其应用>>

13位ISBN编号: 9787506259408

10位ISBN编号:7506259400

出版时间:2003-6

出版时间:世界图书出版公司

作者: M.Mansuripur 著

页数:502

字数:22

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

<<经典光学及其应用>>

内容概要

This book covers a broad range of the major topics of classical optics, in the form of 37 self-contained chapters. The chapters in the first half of the book deal primarily with the basic concepts of optics, while those in the second half describe how these concepts can be used in a variety of technological applications. In each chapter, Professor Mansuripur introduces and develops a specialized topic in a comprehensive, clear and pedagogical style. The mathematical content is kept to a minimum as the book aims to provide the reader with insightful discussions of optical phenomena, at a level which is both accessible and interesting. This is aided by the numerous illustrations throughout in the form of diagrams, graphs and powerful computer simulation images. Topics covered include classical diffraction theory, optics of crystals, peculiarities of polarized light, thin-film multilayer stacks and coatings, geometrical optics and ray-tracing, various forms of optical microscopy, interferometry, coherence, holography, and nonlinear optics. As such, this book will constitute the ideal companion text for graduatelevel courses in optics, providing supplementary reading material for teachers and students alike. Industrial scientists and engineers developing modern optical systems will also find it an invaluable resource.

<<经典光学及其应用>>

书籍目录

Preface Introduction 1 Abbe's sine condition 2 Fourier optics 3 Effect of polarization on diffraction in systems of high numerical aperture 4 Gaussian beam optics 5 Coherent and incoherent imaging 6 First-order temporal coherence in classical optics 7 The van Cittert-Zernike theorem 8 Partial polarization , Stokes parameters , and the Poincare sphere 9 What in the world are surface plasmons? 10 The Faraday effect 11 The magneto-optical Kerr effect 12 Fabry-Perot etalons in polarized light 13 The Ewald-Oseen extinction theorem 14 Reciprocity in classical linear optics 15 Linear optical vortices 16 Geometric-optical rays , Poynting 's vector , and the field momenta 17 Diffraction gratings 18 The Talbot effect19 Some quirks of total internal reflection20 Evanescent coupling21 Internal and external conical refraction22 The method of Fox and Li23 The beam propagation method24 Michelson's stellar interferometer25 Bracewell's interferometric telescope26 Scanning optical microscopy27 Zernike's method of phase contrast28 Polarization microscopy29 Nomarski's differential interference contrast microscope30 The van Leeuwenhoek microscope31 Projection photolithography32 The Ronchic test33 The Shack-Hartmann wave front sensor34 Ellipsometry35 Holography and holographic interferometry36 Self-focusing in nonlinear optical media37 Laser heating of multilayer stacksIndex

<<经典光学及其应用>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com