1. Record Nr. UNINA9910143415303321

Autore: Scharf Toralf <1967->

Titolo: Polarized light in liquid crystals and polymers [[electronic resource] /] / Toralf Scharf

Pubbl/distr/stampa: Hoboken, N.J., : Wiley-Interscience, c2007

ISBN: 1-280-72155-3
9786610721559
0-470-07437-X
0-470-07436-1

Descrizione fisica: 1 online resource (412 p.)

Disciplina: 530.429
535.52

Soggetti: Polarization (Light)
Liquid crystals
Polymer liquid crystals
Light - Transmission
Electronic books.

Lingua di pubblicazione: Inglese

Formato: Materiale a stampa

Livello bibliografico: Monografia

Note generali: Description based upon print version of record.

Nota di bibliografia: Includes bibliographical references and index.

Nota di contenuto: POLARIZED LIGHT IN LIQUID CRYSTALS AND POLYMERS; CONTENTS; Preface; 1 Polarized Light; 1.1 Introduction; 1.2 Concept of Light Polarization; 1.3 Description of The State of Polarization; 1.4 The Stokes Concept; 1.5 The Jones Concept; 1.6 Coherence and Polarized Light; References; 2 Electromagnetic Waves in Anisotropic Materials; 2.1 Introduction; 2.2 Analytical Background; 2.3 Time Harmonic Fields and Plane Waves; 2.4 Maxwell's Equations in Matrix Representation; 2.5 Separation of Polarizations for Inhomogeneous Problems; 2.6 Separation of Polarizations for Anisotropic Problems
4.6 Reflection and TransmissionReferences; 5 Space-Grid Time-Domain Techniques; 5.1 Introduction; 5.2 Description of the FDTD Method; 5.3 Implementation and Boundary Conditions; 5.4 Rigorous Optics for Liquid Crystals; References; 6 Organic Optical Materials; 6.1 Introduction; 6.2 Polymers for Optics; 6.3 Physical Properties of Polymers; 6.4 Optical Properties of Polymers; 6.5 Liquid Crystal Phases;

Sommario/riassunto

Polarized Light in Liquid Crystals and Polymers deals with the linear optics of birefringent materials, such as liquid crystals and polymers, and surveys light propagation in such media with special attention to applications. It is unique in treating light propagation in micro- and nanostructured birefringent optical elements, such as lenses and gratings composed of birefringent materials, as well as the spatial varying anisotropic structures often found in miniaturized liquid crystal devices.