

1. Record Nr.	UNINA9910455596503321
Autore	Mackay Tom G
Titolo	Electromagnetic anisotropy and bianisotropy [[electronic resource]] : a field guide / / Tom G. Mackay, Akhlesh Lakhtakia
Pubbl/distr/stampa	Hackensack, NJ, : World Scientific Pub. Co., 2010
ISBN	1-282-76170-6 9786612761706 1-61344-048-0 981-4289-62-0
Descrizione fisica	1 online resource (xxi, 213 p.) : ill
Altri autori (Persone)	LakhtakiaA <1957-> (Akhlesh)
Disciplina	537
Soggetti	Electromagnetic fields - Mathematics Composite materials Electromagnetism Anisotropy Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Maxwell postulates and constitutive relations -- Linear mediums -- Spacetime symmetries and constitutive dyadics -- Planewave propagation -- Dyadic Green functions -- Homogenization -- Nonlinear mediums.
Sommario/riassunto	The topics of anisotropy and bianisotropy are fundamental to electromagnetics from both theoretical and experimental perspectives. These properties underlie a host of complex and exotic electromagnetic phenomena in naturally occurring materials and in relativistic scenarios, as well as in artificially produced metamaterials. As a unique guide to this rapidly developing field, the book provides a unified presentation of key classic and recent results on the studies of constitutive relations, spacetime symmetries, planewave propagation, dyadic Green functions, and homogenization of composite materials. The book offers an up-to-date extension to standard treatments of crystal optics with coverage on both linear and weakly nonlinear regimes.

