

1. Record Nr.	UNINA9910634048403321
Titolo	Light scattering in solids . IX Novel materials and techniques // M. Cardona, Roberto Merlin (eds.)
Pubbl/distr/stampa	Berlin, : Springer, c2007
ISBN	1-280-72724-1 9786610727247 3-540-34436-5
Descrizione fisica	1 online resource (445 p.)
Collana	Topics in applied physics, , 0303-4216 ; ; 108
Altri autori (Persone)	CardonaM (Manuel) MerlinRoberto
Disciplina	535.43
Soggetti	Light - Scattering Solids - Optical properties
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	Light Scattering in Solids IX -- Raman Scattering in Resonant Cavities -- Raman Scattering in Carbon Nanotubes -- Resonant Raman Scattering by Acoustic Phonons in Quantum Dots -- Inelastic X-Ray Scattering from Phonons -- Ultrafast X-Ray Scattering in Solids.
Sommario/riassunto	This is the ninth volume of a well-established series in which expert practitioners discuss topical aspects of light scattering in solids. It reviews recent developments concerning mainly semiconductor nanostructures and inelastic x-ray scattering, including both coherent time-domain and spontaneous scattering studies. In the past few years, light scattering has become one of the most important research and characterization methods for studying carbon nanotubes and semiconducting quantum dots, and a crucial tool for exploring the coupled exciton--photon system in semiconductor cavities. Among the novel techniques discussed in this volume are pump--probe ultrafast measurements and those which use synchrotron radiation as light source. The book addresses improvements in the intensity, beam quality and time synchronization of modern synchrotron sources, which made it possible to measure the phonon dispersion in very small samples and to determine electronic energy bands as well as enabling

real-time observations of high-frequency sound propagation.
