

1. Record Nr.	UNINA9910139817403321
Titolo	Particle Scattering, X-Ray Diffraction, and Microstructure of Solids and Liquids // edited by Manfred L. Ristig, Klaus A. Gernoth
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2003
ISBN	3-540-45881-6
Edizione	[1st ed. 2003.]
Descrizione fisica	1 online resource (XII, 196 p.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 610
Disciplina	530.4/11
Soggetti	Condensed matter Crystallography Chemistry, Physical and theoretical Physics Condensed Matter Physics Crystallography and Scattering Methods Physical Chemistry Numerical and Computational Physics, Simulation
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 at the end of each chapters.
Nota di contenuto	Scattering from Condensed Matter: A Brief Introduction -- Scattering Studies of Condensed Helium Isotopes -- The One- and Two-Body Densities of Crystalline Matter and Bragg and Diffuse Scattering of Neutrons and X-Rays -- Average Structure vs. Real Structure: Molecular Dynamics Studies of Silica -- Simulation and Theory of Inhomogeneous Liquid Crystals -- Disorder Diffuse Scattering of Crystals and Quasicrystals -- Inelastic Neutron Scattering from Structural Excitations.
Sommario/riassunto	Interesting and new specific results of current theoretical and experimental work in various fields at the frontier of particle scattering and X-ray diffraction are reviewed in this volume. Special emphasis is placed on the study of the microstructure of quantum solids, crystals, and liquids both classically and quantum mechanically. This gives the reader essential insights into the dynamics and properties of these states of matter. The authors address students interested in the physics

of quantum solids, crystallography and material science as well as physical chemistry and computational physics.
