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Nota di contenuto	Contents; List of important symbols; 1 Introductory survey; 2 Characteristic valence electron excitations; 3 Core-electron excitation (X-ray Raman scattering (XRS)); 4 The Compton scattering regime; 5 Resonant inelastic X-ray scattering (RIXS); 6 Theoretical foundation; Index
Sommario/riassunto	The book offers the first comprehensive review of experimental methods, theory, and successful applications of synchrotron radiation based inelastic X-ray scattering (IXS) spectroscopy, which enables the investigation of electron dynamics in condensed matter (correlated motion and excitation). - ;Knowledge of the dynamics of many-electron systems is of fundamental importance to all disciplines of condensed matter physics. A very effective access to electron dynamics is offered by inelastic X-ray scattering (IXS) spectroscopy. The double differential scattering cross section for IXS is directly