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	Nota di contenuto	X-ray Diffraction by Polycrystalline Materials; Table of Contents; Preface; Acknowledgements; An Historical Introduction: The Discovery of X-rays and the First Studies in X-ray Diffraction; Part 1. Basic Theoretical Elements, Instrumentation and Classical Interpretations of the Results; Chapter 1. Kinematic and Geometric Theories of X-ray Diffraction; 1.1. Scattering by an atom; 1.1.1. Scattering by a free electron; 1.1.1.1. Coherent scattering: the Thomson formula; 1.1.1.2. Incoherent scattering: Compton scattering [COM 23]; 1.1.2. Scattering by a bound electron
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3.1.3. Spectral width: g3()

| Sommario/riassunto | This book presents a physical approach to the diffraction phenomenon and its applications in materials science.An historical background to the discovery of X-ray diffraction is first outlined. Next, Part 1 gives a description of the physical phenomenon of X-ray diffraction on perfect and imperfect crystals. Part 2 then provides a detailed analysis of the instruments used for the characterization of powdered materials or thin films. The description of the processing of measured signals and their results is also covered, as are recent developments relating to quantitative microstructural ana |