1. Record Nr. UNINA9910778684503321 Autore He Bob B. <1954-> Titolo Two-dimensional X-ray diffraction [[electronic resource] /] / Bob B. He Hoboken, NJ,: Wiley, c2009 Pubbl/distr/stampa **ISBN** 1-118-21075-1 1-282-34569-9 9786612345692 0-470-50264-9 0-470-50262-2 Descrizione fisica 1 online resource (442 p.) Disciplina 539.2 548.83 X-rays - Diffraction Soggetti X-rays - Diffraction - Experiments X-rays - Diffraction - Industrial applications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto TWO-DIMENSIONAL X-RAY DIFFRACTION; CONTENTS; Preface; 1. Introduction; 2. Geometry Conventions; 3. X-Ray Source and Optics; 4. X-Ray Detectors; 5. Goniometer and Sample Stages; 6. Data Treatment; 7. Phase Identification; 8. Texture Analysis; 9. Stress Measurement; 10. Small-Angle X-Ray Scattering; 11. Combinatorial Screening; 12. Quantitative Analysis; 13. Innovation and Future Development; Appendix A. Values of Commonly Used Parameters; Appendix B. Symbols; Index Written by one of the pioneers of 2D X-Ray Diffraction, this useful Sommario/riassunto guide covers the fundamentals, experimental methods and applications of two-dimensional x-ray diffraction, including geometry convention, x-ray source and optics, two-dimensional detectors, diffraction data interpretation, and configurations for various applications, such as phase identification, texture, stress, microstructure analysis, crystallinity, thin film analysis and combinatorial screening.

Experimental examples in materials research, pharmaceuticals, and

forensics are also given. This presents a key resource to research