Record Nr. UNINA9910817781903321 Autore Luger Peter <1943-> Titolo Modern X-ray analysis on single crystals : a practical guide / / Peter Luger Pubbl/distr/stampa Berlin, Germany:,: De Gruyter,, 2014 ©2014 **ISBN** 1-5231-0057-5 3-11-030828-2 Edizione [Second fully revised and extended edition.] Descrizione fisica 1 online resource (348 p.) **UQ 5600** Classificazione 548 Disciplina Soggetti X-ray crystallography Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Frontmatter -- Preface to the 1st edition -- Preface to the 2nd edition / Luger, Peter -- Contents -- 1. Introduction -- 2. Fundamental results of diffraction theory, X-radiation -- 3. Preliminary experiments -- 4. Crystal symmetry -- 5. Diffractometer measurements -- 6. Computer programs -- 7. Solution of the phase problem -- 8. Refinements -- 9. Structure analysis at non-routine conditions -- 10. Concluding remarks and outlook -- Appendix: Mathematics -- Bibliography -- Index Sommario/riassunto An excellent book for professional crystallographers! In 2012 the crystallographic community celebrated 100 years of X-ray diffraction in honour of the pioneering experiment in 1912 by Max von Laue. Friedrich and Knipping. Experimental developments e.g. brilliant X-ray sources, area detection, and developments in computer hardware and software have led to increasing applications in X-ray analysis. This completely revised edition is a guide for practical work in X-ray analysis. An introduction to basic crystallography moves quickly to a practical and experimental treatment of structure analysis. Emphasis is placed on understanding results and avoiding pitfalls. Essential reading for researchers from the student to the professional level interested in understanding the structure of molecules.