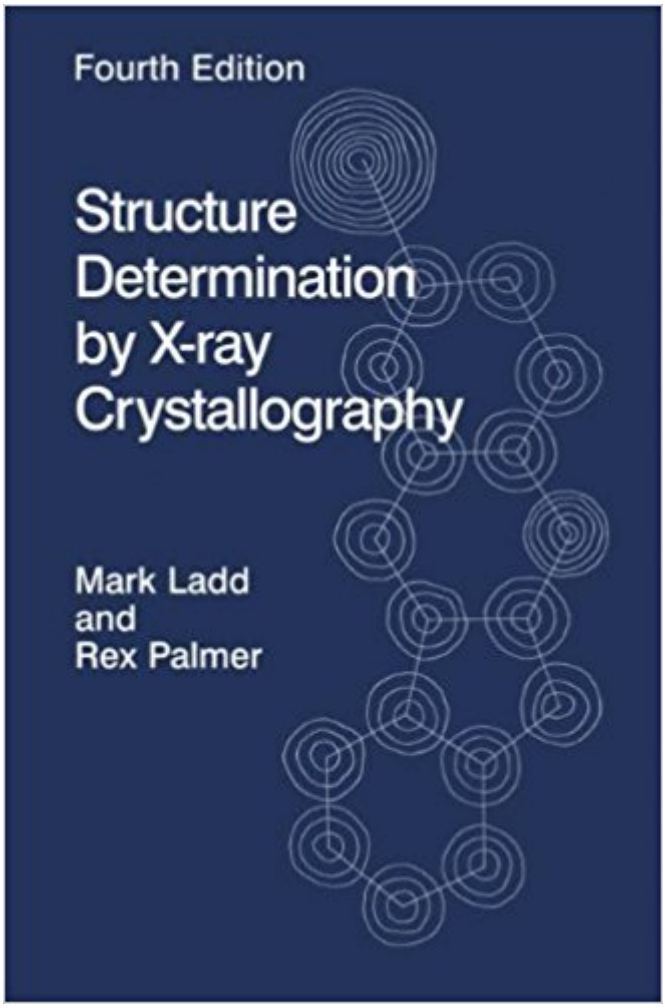
Structure Determination By X-ray Crystallography



Synopsis

I was highly flattered when I was asked by Mark Ladd and Rex Palmer if I would write the Foreword to this Fourth Edition of their book. "Ladd & Palmer" is such a well-known and classic book on the subject of crystal structure determination, one of the standards in the field: I did feel daunted by the prospect, and wondered if I could do justice to it. The determination of crystal structures by X-ray crystallography has come a long way since the 1912 discoveries of von Laue and the Braggs. In the intervening years great advances have been made, so that today it is almost taken for granted that crystal structures can be determined in which hundreds, if not thousands, of sepaÂ- rate atomic positions can be found with apparent ease. In the early years the strucÂ- tures of relatively simple materials, such as the alkali halides, were often argued over and even disputed, whereas today we routinely see published structures of most complex molecular crystals, including the structures of viruses and proteins.

Book Information

Paperback: 817 pages

Publisher: Springer; 4th edition (September 30, 2003)

Language: English

ISBN-10: 0306474549

ISBN-13: 978-0306474545

Product Dimensions: 9.3 x 5.9 x 1.7 inches

Shipping Weight: 2.4 pounds

Average Customer Review: 4.4 out of 5 stars 3 customer reviews

Best Sellers Rank: #1,077,039 in Books (See Top 100 in Books) #90 inÂ Books > Engineering & Transportation > Engineering > Materials & Material Science > Testing #93 inÂ Books > Science & Math > Chemistry > Crystallography #227 inÂ Books > Science & Math > Earth Sciences > Mineralogy

Customer Reviews

`The authors are experienced both as research workers themselves and as teachers of standing, and this is shown in their clarity of exposition. There are plenty of illustrations and worked examples to aid the student.' From the Foreword by C.A. Beevers --This text refers to an out of print or unavailable edition of this title.

MICK INKPEN's books starring Kipper have sold millions of copies worldwide and have been

translated into more than twenty languages. His more recent titles include Kipper's A to Z, a Publishers Weekly Best Book of the Year and an ABA's Pick of the Lists, and Kipper and Roly. Mr. Inkpen lives in Suffolk, England.

This book is a fantastic overview of X-ray crystallography. It covers the basics in great detail, including symmetry, point groups, space groups, reciprocal space, etc. The explanations are easy to understand (as easy as this material can be) and it is reviewed in a good amount of detail. After covering the basic "background" material, the transition into x-ray diffraction and determining the structure from diffraction patters is covered and "flows" quite easily from the discussions of the introductory material. Each section of the book (more or less) builds on material covered in the previous sections and since the subject matter is explained so well, this book is very comprehensive. I never felt that any explanations were ambiguous or lacking in depth or clarity - to the contrary: basically every concept in the book is explained clearly and with sufficient depth to ensure that I was not left with a headful of questions about something.The authors did an equally excellent job in explaining abstract mathematical ideas (e.g. symmetry, space groups, etc.), theoretical physical concepts (e.g. scattering by electrons, combinations of waves, the phase problem, etc.) and concrete experimental methods (e.g. Weissenberg method, Laue method, X-ray sources, etc.)This is the book that I would recommend to anyone who wants to understand X-ray crystallography and how to determine crystal structures with X-ray diffraction.

This book is really good for the introduction of the X-ray single crystal structure determination. The text is really clear with useful examples.

Good service. A generous second delivery due to address mistake.I will buy books from you again ! Thank you

Structure Determination by X-ray Crystallography Structure Determination by X-ray Crystallography: Analysis by X-rays and Neutrons The Basics of Crystallography and Diffraction (International Union of Crystallography Texts on Crystallography) The Basics of Crystallography and Diffraction: Fourth Edition (International Union of Crystallography Texts on Crystallography) The Basics of Crystallography and Diffraction: Third Edition (International Union of Crystallography Texts on Crystallography) Crystal Structure Analysis: Principles and Practice (International Union of Crystallography Monographs on Crystallography) Working Length Determination: A Milestone in

Endodontics: Comparative role of radiographs and electronic apex locator in working length determination The Rietveld Method (International Union of Crystallography Monographs on Crystallography) International Tables for Crystallography, Space-Group Symmetry (IUCr Series. International Tables of Crystallography) Minerals and Rocks: Exercises in Crystal and Mineral Chemistry, Crystallography, X-ray Powder Diffraction, Mineral and Rock Identification, and Ore Mineralogy Principles of Protein X-ray Crystallography (Springer Advanced Texts in Chemistry) Elements of X-ray Crystallography X-Ray Crystallography: An Introduction to the Investigation of Crystals by Their Diffraction of Monochromatic X-Radiation Structure Determination of Organic Compounds: Tables of Spectral Data Structure of Materials: An Introduction to Crystallography, Diffraction and Symmetry Brother Ray: Ray Charles' Own Story The Best of Bob & Ray: Excerpts from the Bob & Ray Public Radio Show (Volume One: 4 Cassettes, 4 Hours (64 Selections)) Ray of New (Ray #6) Solution Key for Algebra and Trigonometry: Structure and Method: Book 2 (McDougal Littell Structure & Method) Advanced Organic Chemistry: Part A: Structure and Mechanisms: Structure and Mechanisms Pt. A