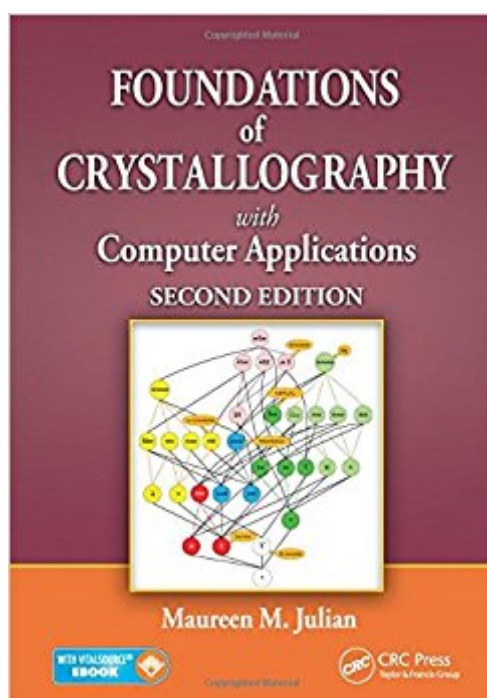


The book was found

# Foundations Of Crystallography With Computer Applications, Second Edition



## Synopsis

Taking a straightforward, logical approach that emphasizes symmetry and crystal relationships, *Foundations of Crystallography with Computer Applications, Second Edition* provides a thorough explanation of the topic for students studying the solid state in chemistry, physics, materials science, geological sciences, and engineering. It is also written for scientists who want to teach themselves. Computers are an essential part of crystallography, and computer-based exercises are integrated into this book. The material is presented with the goal of creating an understanding of how atoms are arranged in crystals and how crystal systems are related to each other. See [What's New in the Second Edition](#): Eight new chapters that give detailed crystallographic analyses of one crystal chosen for each crystal system Numerous molecular examples and suggestions for student projects Coverage of special topics that naturally arise in the treatment of the crystals Suggestions for student projects with data that can be found in the free Teaching Subset of the Cambridge Structural Database Point group and space group diagrams have been color coded using a new scheme devised by the author to emphasize the change of handedness of the symmetry operations All the Starter Programs have been rewritten and improved, and a new one has been added in Chapter 6 on the graphing of intensity vs.  $2\theta$  for powder diffraction data New appendices contain detailed information about the 32 three-dimensional point groups and the 10 two-dimensional point groups The book explains the individual entities, such as symmetry operations, and also explains how they fit together in a larger context. Coverage includes lattices, symmetry operations, metric matrices, point groups, space groups, reciprocal lattices, properties of x-rays, and electron density maps, all leading to a formal description of the crystal structures and an interpretation of the published crystallographic data. The author connects general properties such as the piezoelectric effect, compressibility, thermal expansion, and Moseley's relationship in ordering the elements of the periodic table giving students a thorough foundation in the subject.

## Book Information

Paperback: 680 pages

Publisher: CRC Press; 2 edition (October 3, 2014)

Language: English

ISBN-10: 1466552913

ISBN-13: 978-1466552913

Product Dimensions: 10.2 x 7.3 x 1.3 inches

Shipping Weight: 3.4 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 1 customer review

Best Sellers Rank: #372,734 in Books (See Top 100 in Books) #29 in Books > Science & Math > Chemistry > Crystallography #99 in Books > Science & Math > Physics > Solid-State Physics #242 in Books > Computers & Technology > Networking & Cloud Computing > Networks, Protocols & APIs > Networks

## Customer Reviews

nice

[Download to continue reading...](#)

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) The Basics of Crystallography and Diffraction (International Union of Crystallography Texts on Crystallography) Foundations of Crystallography with Computer Applications, Second Edition Crystal Structure Analysis: Principles and Practice (International Union of Crystallography Monographs on Crystallography) The Rietveld Method (International Union of Crystallography Monographs on Crystallography) International Tables for Crystallography, Space-Group Symmetry (IUCr Series. International Tables of Crystallography) Nutritional Foundations and Clinical Applications: A Nursing Approach, 5e (Foundations and Clinical Applications of Nutrition) 1st Grade Computer Basics : The Computer and Its Parts: Computers for Kids First Grade (Children's Computer Hardware Books) Computer Vision: Algorithms and Applications (Texts in Computer Science) Extremal Combinatorics: With Applications in Computer Science (Texts in Theoretical Computer Science. An EATCS Series) 3D Reconstruction: Methods, Applications and Challenges (Computer Science, Technology and Applications) Glencoe Keyboarding with Computer Applications, Microsoft Office 2007, Applications 1-150, Student Manual (JOHNSON: GREGG MICRO KEYBOARD) Elementary Linear Programming with Applications, Second Edition (Computer Science & Scientific Computing Series) Computer Organization and Design MIPS Edition, Fifth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) Crystallography Made Crystal Clear, Third Edition: A Guide for Users of Macromolecular Models (Complementary Science) Computer Organization and Design, Fourth Edition: The Hardware/Software Interface (The Morgan Kaufmann Series in Computer Architecture and Design) Data and Computer Communications (10th Edition) (William Stallings Books on Computer and Data Communications) Computer Forensics: Investigating File and Operating Systems, Wireless Networks, and Storage (CHFI), 2nd Edition

(Computer Hacking Forensic Investigator) Foundations of GMAT Math, 5th Edition (Manhattan  
GMAT Preparation Guide: Foundations of Math)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)