Principles of Protein X-Ray Crystallography (Springer Advanced Texts in Chemistry)

Jan Drenth
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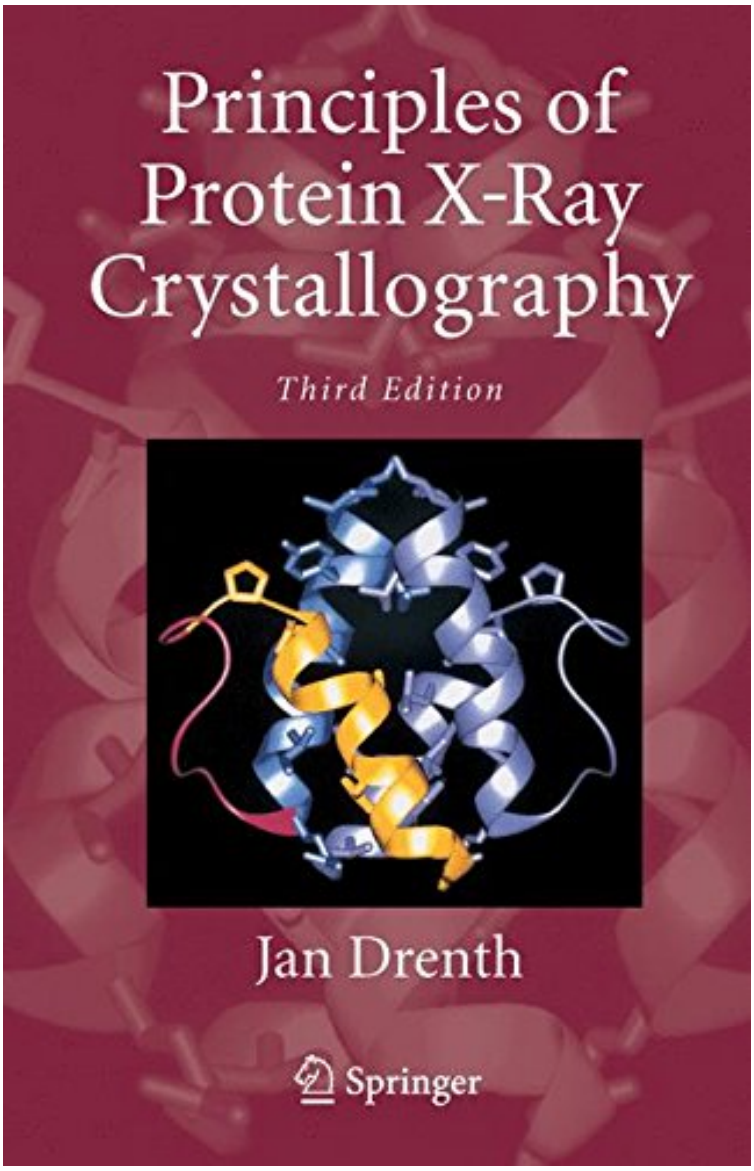

#2575457 in Books Jan Drenth 2006-11-09Original language:EnglishPDF # 1 9.21 x .81 x 6.14l, 1.31 #File Name: 0387333347332 pagesPrinciples of Protein X Ray Crystallography | File size: 66.Mb

Jan Drenth : Principles of Protein X-Ray Crystallography (Springer Advanced Texts in Chemistry) before purchasing it in order to gage whether or not it would be worth my time, and all praised Principles of Protein X-Ray Crystallography (Springer Advanced Texts in Chemistry):

0 of 0 people found the following review helpful. Five StarsBy Lei ZhangGood!1 of 1 people found the following

review helpful. Good but not for beginnersBy mishu917I bought this book when I was first learning crystallography as a first year grad student. This book was ok in some parts but most of it was over my head. I could tell it had some great information but I just needed more of a background to understand the information that it offered. There are more basic crystallography textbooks out there I was referred to later by some crystallographers.0 of 2 people found the following review helpful. Not Helpful for a introductory classBy Matthew BratkowskiI used this text book for an introductory graduate class in X-ray Crystallograhy. After taking a semester of X-ray Crystallograhy (which is labeled as a Chemistry and Biochemistry course), I can say that the material is mainly based on physics and mathematics. I can't say that this text helped a great deal for my course. The text does not explain relevant points such as Miller indices, symmetry elements, or space groups clearly or in much depth. Instead, it spends too much time explaining concepts mathematically and deriving equations. It also does not contain any relevant practice problems, which are needed to understand Crystallography and practice for exams.X-ray Crystallography is a very dense subject, and is not a course to take on a whim. I would not reccomend taking a course on Crystallography unless you have a really intense interest in pursuing research in that area. If you are interested in this area, do not buy this text even if it is required for your course. Take a look at Crystallography Made Crystal Clear by Gale Rhodes. That book is much clearer, though also lacks sufficient practice problems.

X-ray crystallography is an established method for studying the structure of proteins and other macromolecules. As the importance of proteins grows, researchers in many fields have found that a working knowledge of X-ray diffraction is an indispensable tool. In this new edition of his essential work, the internationally recognized researcher Dr. Jan Drenth offers an up-to-date and technically rigorous introduction to the subject, providing the theoretical background necessary to understand how the structure of proteins is determined at atomic resolution. New material in the 3rd edition includes a section on twinning, an additional chapter on crystal growth and a discussion of single-wavelength anomalous dispersion.

From the reviews of the third edition: "This book, Principles of Protein X-ray Crystallography, aims to satisfy nearly everyone; The volume is well organized . this is a solid book by an experienced protein crystallographer. It covers the full spectrum of subjects for a professional structural biologist. Specialized subjects are kept in separate chapters so the book can be parsed by those interested in the big picture of the method. it is probably the most definitive work that is currently available for structural biologists." (Jon Robertus, Journal of the American Chemical Society, Vol. 129 (17), 2007)From the Back CoverX-ray crystallography has long been a vital method for studying the structure of proteins and other macromolecules. As the importance of proteins continues to grow, in fields from biochemistry and biophysics to pharmaceutical development and biotechnology, many researchers have found that a knowledge of X-ray diffraction is an indispensable tool. In this new edition of his essential work, Dr. Jan Drenth, recognized internationally for his numerous contributions to crystallographic research, has provided an up-to-date and technically rigorous introduction to the subject. Principles of Protein X-ray Crystallography provides the theoretical background necessary to understand how the structure of proteins is determined at atomic resolution. It is intended to serve as an introduction for graduate students, postdoctoral researchers, and established scientists who want to use protein crystallography in their own endeavors, or need to understand the subject in order to critically evaluate the literature. New additions to the book include a section on twinning, an additional chapter on crystal growth and a discussion of single-wavelength anomalous dispersion (SAD). s: "The new edition... will bring important and significant, and timely, coverage of twinning and of SAD phasing." Professor John Helliwell,Department of Chemistry, University of Manchester "a complete and up to date... single source of theory." Duncan McRee, President, ActiveSight About the Authors: Dr. Jan Drenth is a professor emeritus at the Laboratory of Biophysical Chemistry at the University of Groningen, The Netherlands. Contributing author Dr. Jeroen R. Mesters Ph.D. is a Senior Research Assistant at the Institute of Biochemistry, University of Luebeck, Germany.About the AuthorDr. Jan Drenth is a professor emeritus at the Laboratory of Biophysical Chemistry at the University of Groningen, The Netherlands. Contributing author Dr. Jeroen R. Mesters Ph.D. is a Senior Research Assistant at the Institute of Biochemistry, University of Luebeck, Germany.