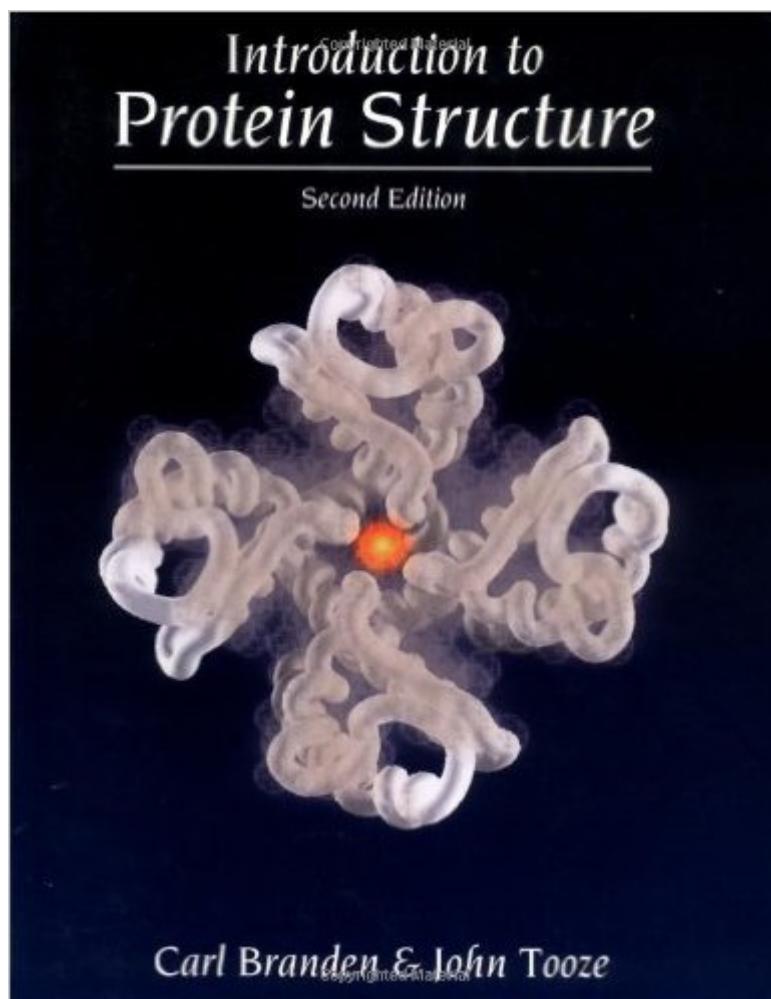


The book was found

Introduction To Protein Structure



Synopsis

Introduction to Protein Structure provides an account of the principles of protein structure, with examples of key proteins in their biological context generously illustrated in full-color to illuminate the structural principles described in the text. The first few chapters introduce the general principles of protein structure both for novices and for non-specialists needing a primer. Subsequent chapters use specific examples of proteins to show how they fulfill a wide variety of biological functions. The book ends with chapters on the experimental approach to determining and predicting protein structure, as well as engineering new proteins to modify their functions.

Book Information

Paperback: 410 pages

Publisher: Garland Science; 2 edition (January 3, 1999)

Language: English

ISBN-10: 0815323050

ISBN-13: 978-0815323051

Product Dimensions: 10.9 x 8.4 x 0.7 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 4.6 out of 5 starsÂ See all reviewsÂ (19 customer reviews)

Best Sellers Rank: #179,151 in Books (See Top 100 in Books) #69 inÂ Books > Medical Books > Basic Sciences > Cell Biology #115 inÂ Books > Science & Math > Biological Sciences > Biology > Molecular Biology #175 inÂ Books > Engineering & Transportation > Engineering > Bioengineering > Biochemistry

Customer Reviews

This book was a pleasant surprise in almost every respect. I found it a gentle, clear exposition of material that can be hugely complicated. The text works upwards from amino acids, the building blocks, through the interactions of shape and chemical affinity, to views of proteins in action. By the time they appear, muscle fibers and virus capsules follow naturally from the discussion. This gives simple, concise descriptions of how proteins' shape emerge from its sequence. It goes on to describe protein control of DNA, to explain virus and muscle structure, and to hint at modern drug design.'Protein Structure' requires some background in organic chemistry and in the ideas of molecular genetics. For example, you should already be familiar with steric hindrance and with the idea of regulatory regions in DNA. Branden and Tooze reward the prepared reader with a well-considered series of discussions. These include enzyme action, photosynthesis, virus

self-assembly, muscle fibers, DNA binding, and more. I had never seen an actual chain of chemical events that turn light into usable chemical energy. This book stepped through it (for a bacterium, at least) in just few paragraphs and drawings. But the whole book is like that - it sustains a remarkable density of information, always in a very readable style. The text is laid out in a simple and appealing way, and is profusely illustrated. The illustration is one of this book's wonderful strengths. Almost all of the discussion is carried in diagrams as well as in words, and the authors freely use as many different diagrams as needed to make each idea understandable. The illustration style is simple and consistent; most drawings use one of three or four conventions for describing proteins.

This review refers to the second edition of this book, issued in 1999. The book, written by a noted crystallographer (Branden) and a molecular biologist (Tooze) noted for science education. Following up on an earlier edition, the present volume takes advantage of the enormous increase in solved protein structures that has occurred in the intervening years. The book is well written, clear, and makes excellent use of contrasting pastel colors to represent three-dimensional objects (proteins) on a two-dimensional page. One rather surprising omission is the lack of stereo views of proteins in a book about structure. These have become quite common in the structural biology literature, and I feel the book would have been strengthened by judicious inclusion of some examples. The book, which would be suitable for an advanced undergraduate, graduate course or for biologist wishing to delve more into structure, begins with basic amino acid properties. The secondary structure elements of alpha helix and beta sheet are next introduced, along with some of the conventions used to illustrate structure in publications. How these structural elements are formed to build motifs, and motifs in turn are built into complex structures is discussed. Protein folding and flexibility are discussed, and proteins that assist in the process (e.g., chaperones, GroEL-GroES, disulfide isomerases) are highlighted. The next several chapters deal with DNA structure, DNA recognition by helix-turn-helix motifs, and eukaryotic transcription factors. The various transcription factor families are outlined, with emphasis on their interactions with DNA. Next, the subject of enzyme catalysis is covered, using serine proteases as exemplars.

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

DIY Protein Bars: 25 Simple Protein Bar Recipes For Making Quick Healthy Snacks. Learn How to Make Protein Bars in No Time (diy protein bars, protein bars, high protein snacks) DIY Protein Bars: Simple & Tasty Homemade Protein Bar Recipes for Weight Loss, and Build Muscles to Replace a Properly Balanced Meal (Protein Bars, DIY Protein Bars, protein bars at home) Ideal Protein Cookbook - The Ultimate Guide in Protein for Fitness Health and Wellness: The Ultimate Guide in

Protein for Fitness Health and Wellness Introduction to Protein Structure Vegan: High Protein Cookbook: 50 Delicious High Protein Vegan Recipes (Dairy Free, Gluten Free, Low Cholesterol, Vegan Diet, Vegan for Weight loss, vegetarian, vegan bodybuilding, Cast Iron,) DIY Protein Bars Cookbook: Easy, Healthy, Homemade No-Bake Treats That Taste Like Dessert, But Just Happen To Be Packed With Protein! Low Carb: Low Carb Diet for Beginners - How to Lose 7 Pounds in 7 Days with Low Carb & High Protein Diet Without Starving! (low carbohydrate, high protein, ... carb cookbook, ketogenic diet, paleo diet) Protein Power: The High-Protein/Low Carbohydrate Way to Lose Weight, Feel Fit, and Boost Your Health-in Just Weeks! Vegan Protein Recipes: 51 Healthy Protein Packed Recipes for Muscle Buidling, Toning, & Balanced Nutrition Superfood Protein Bars On-the-Go: Easy and Delicious DIY Protein Bar Recipes For Extreme Weight Loss, Energy and Vibrant Health Stability of Protein Pharmaceuticals: Part B: In Vivo Pathways of Degradation and Strategies for Protein Stabilization (Pharmaceutical Biotechnology) Protein-Protein Interactions in Drug Discovery, Volume 56 Polypropylene Structure, blends and composites: Volume 1 Structure and Morphology Advanced Organic Chemistry: Part A: Structure and Mechanisms: Structure and Mechanisms Pt. A Biological Inorganic Chemistry, Second Edition: A New Introduction to Molecular Structure and Function Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory (Dover Books on Chemistry) Introduction to Quantum Theory and Atomic Structure (Oxford Chemistry Primers) Earth Structure: An Introduction to Structural Geology and Tectonics Earth Structure: An Introduction to Structural Geology and Tectonics:2nd (Second) edition Structure of Materials: An Introduction to Crystallography, Diffraction and Symmetry

[Dmca](#)