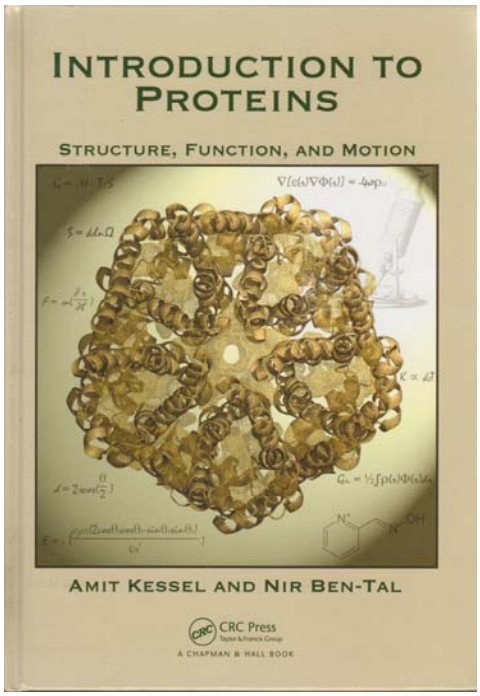
AMIT KESSEL, NIR BEN-TAL
INTRODUCTION TO PROTEINS: STRUCTURE, FUNCTION, AND MOTION



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As the tools and techniques of structural biophysics assume greater roles in biological research and a range of application areas, learning how proteins behave becomes crucial to understanding their connection to the most basic and important aspects of life.

With more than 350 color images throughout, ***Introduction to Proteins: Structure, Function, and Motion*** presents a unified, in-depth treatment of the relationship between the structure, dynamics, and function of proteins. Taking a structural-biophysical approach, the authors discuss the molecular interactions and thermodynamic changes that transpire in these highly complex molecules.

The text incorporates various biochemical, physical, functional, and medical aspects. It covers different levels of protein structure, current methods for structure determination, energetics of protein structure, protein folding and folded state dynamics, and the functions of intrinsically unstructured proteins. The authors also clarify the structure-function relationship of proteins by presenting the principles of protein action in the form of guidelines.

This comprehensive, color book uses numerous proteins as examples to illustrate the topics and principles and to show how proteins can be analyzed in multiple ways. It refers to many everyday applications of proteins and enzymes in medical disorders, drugs, toxins, chemical warfare, and animal behavior. Downloadable questions for each chapter are available at CRC Press Online.

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