Record Nr. UNINA9910298404003321 Autore Skern Tim Titolo Exploring Protein Structure: Principles and Practice / / by Tim Skern Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 3-319-76858-1 **ISBN** Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (X, 255 p. 96 illus., 94 illus. in color.) Collana Learning Materials in Biosciences, , 2509-6125 Disciplina 572.633 Soggetti **Proteins** Science education Molecular biology **Teaching Protein Science** Science Education Molecular Medicine **Protein Structure** Teaching and Teacher Education **Protein-Ligand Interactions** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Chapter 1. The Rationale Behind This Workbook -- Chapter 2. An Archive and a Tool: PDB and PyMOL -- Chapter 3. Exploring Fundamentals -- Chapter 4. Exploring the Peptide Bond -- Chapter 5. Exploring Secondary Structure Elements -- Chapter 6. Exploring ProteinLigand and ProteinProtein Interactions -- Chapter 7. Examining -Helical Proteins -- Chapter. 8. Investigating Proteins with -Sheets -- Chapter 9. Moving from Former to Future Frontiers. Sommario/riassunto This textbook introduces the basics of protein structure and logically explains how to use online software to explore the information in protein structure databases. Readers will find easily understandable. step-by step exercises and video-trainings to support them in grasping

the fundamental concepts. After reading this book, readers will have

the skills required to independently explore and analyze

macromolecular structures, will be versed in extracting information from protein databases and will be able to visualize protein structures using specialized software and on-line algorithms. This book is written for advanced undergraduates and PhD students wishing to use information from structural biology in their assignments and research and will be a valuable source of information for all those interested in applied and theoretical aspects of structural biology.