Record Nr. UNINA9910458677903321 Autore Finkelstein Alexei V Titolo Protein physics [[electronic resource]]: a course of lectures / / Alexei V. Finkelstein, Oleg B. Ptitsyn Amsterdam;; Boston,: Academic Press, c2002 Pubbl/distr/stampa **ISBN** 1-281-00519-3 9786611005191 0-08-049218-5 Descrizione fisica 1 online resource (375 p.) Collana Soft condensed matter, complex fluids and biomaterials series Altri autori (Persone) PtitsynO. B <1929-1999.> (Oleg Borisovich) Disciplina 572.6 572.6 22 Soggetti Amino acid sequence Proteins - Conformation Protein folding Proteins - Chemistry Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references (p. 347) and index. Nota di contenuto Front Cover; Protein Physics: A Course of Lectures; Copyright Page; CONTENTS; Preface; Foreword; Acknowledgments; Part I: INTRODUCTION; Lecture 1; Part II: ELEMENTARY INTERACTIONS IN AND AROUND PROTEINS: Lecture 2: Lecture 3: Lecture 4: Lecture 5: Lecture 6; Part III: SECONDARY STRUCTURES OF POLYPEPTIDE CHAINS; Lecture 7; Lecture 8; Lecture 9; Lecture 10; Part IV: PROTEIN STRUCTURES: Lecture 11: Lecture 12: Lecture 13: Lecture 14: Lecture 15: Lecture 16: Part V: COOPERATIVE TRANSITIONS IN PROTEIN MOLECULES; Lecture 17; Lecture 18; Lecture 19; Lecture 20; Lecture 21 Part VI: PREDICTION AND DESIGN OF PROTEIN STRUCTURELecture 22: Lecture 23; Part VII: PHYSICAL BACKGROUND OF PROTEIN FUNCTIONS; Lecture 24; Lecture 25; Afterword; Recommended reading; Index Sommario/riassunto Protein Physics is a lively presentation of the most general problems of protein structure, folding and function from the physics and chemistry

perspective, based on lectures given by the authors. It deals with fibrous, membrane and, most of all, with the best studied water-

soluble globular proteins, in both their native and denatured states. The major aspects of protein physics are covered systematically, physico-chemical properties of polypeptide chains; their secondary structures; tertiary structures of proteins and their classification; conformational transitions in protein molecules and t