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Nota di contenuto	Biophysical Analysis of Membrane Proteins; Contents; Preface; The Editor; List of Contributors; Part I Introduction; 1 High-Resolution Structures of Membrane Proteins: From X-Ray Crystallography to an Integrated Approach of Membranes; 1.1 Membranes: A Soft Medium?; 1.2 Current Knowledge on Membrane Protein Structures; 1.2.1 An Overview of the Protein Data Bank; 1.2.2 Protein Sources for Structural Studies; 1.2.3 The Diversity of Membrane Protein Topologies; 1.2.4 Genome Analyses; 1.3 X-Ray Crystallography; 1.3.1 Crystallization of Membrane Proteins; 1.3.2 General Aspects of Crystallography 1.3.3 Determining the Phases Associated with Diffracted Waves1.3.4 Structure Determination of Membrane Proteins; 1.3.4.1 Crystal Quality; 1.3.4.2 Phase Determination; 1.3.4.3 Crystal Freezing; 1.4 Recent Examples; 1.4.1 Bacterial Rhodopsins; 1.4.2 ADP/ATP Carrier; 1.4.3

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4.1 Introduction

Sommario/riassunto

Meeting the need for a book on developing and using new methods to investigate membrane proteins, this is the first of its kind to present the full range of novel techniques in one resource. Top researchers from around the world focus on the physical principles exploited in the different techniques, and provide examples of how these can bring about important new insights.Following an introduction, further sections discuss structural approaches, molecular interaction and large assemblies, dynamics and spectroscopies, finishing off with an exploration of structure-function relationships in w