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Nota di contenuto	ENZYMES SECOND EDITION; CONTENTS; Preface; Acknowledgments; Preface to the First Edition; 1 A Brief History of Enzymology; 1.1 Enzymes in Antiquity; 1.2 Early Enzymology; 1.3 The Development of Mechanistic Enzymology; 1.4 Studies of Enzyme Structure; 1.5 Enzymology Today; 1.6 Summary; References and Further Reading; 2 Chemical Bonds and Reactions in Biochemistry; 2.1 Atomic and Molecular Orbitals; 2.2 Thermodynamics of Chemical Reactions; 2.3 Acid-Base Chemistry; 2.4 Noncovalent Interactions in Reversible Binding; 2.5 Rates of Chemical Reactions; 2.6 Summary; References and Further Reading 3 Structural Components of Enzymes3.1 The Amino Acids; 3.2 The Peptide Bond; 3.3 Amino Acid Sequence or Primary Structure; 3.4 Secondary Structure; 3.5 Tertiary Structure; 3.6 Subunits and Quaternary Structure; 3.7 Cofactors in Enzymes; 3.8 Summary; References and Further Reading; 4 Protein-Ligand Binding Equilibria; 4.1 The Equilibrium Dissociation Constant, K(d); 4.2 The Kinetic Approach to Equilibrium; 4.3 Binding Measurements at Equilibrium; 4.4 Graphic Analysis of Equilibrium Ligand Binding Data; 4.5 Equilibrium

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4.6 Competition Among Ligands for a Common Binding Site  
4.7 Experimental Methods for Measuring Ligand Binding; 4.8 Summary; References and Further Reading; 5 Kinetics of Single-Substrate Enzyme Reactions; 5.1 The Time Course of Enzymatic Reactions; 5.2 Effects of Substrate Concentration on Velocity; 5.3 The Rapid Equilibrium Model of Enzyme Kinetics; 5.4 The Steady State Model of Enzyme Kinetics; 5.5 The Significance of  $k_{cat}$  and  $K_m$ ; 5.6 Experimental Measurement of  $k_{cat}$  and  $K_m$ ; 5.7 Other Linear Transformations of Enzyme Kinetic Data; 5.8 Measurements at Low Substrate Concentrations  
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Sommario/riassunto

Fully updated and expanded—a solid foundation for understanding experimental enzymology. This practical, up-to-date survey is designed for a broad spectrum of biological and chemical scientists who are beginning to delve into modern enzymology. *Enzymes, Second Edition* explains the structural complexities of proteins and enzymes and the mechanisms by which enzymes perform their catalytic functions. The book provides illustrative examples from the contemporary literature to guide the reader through concepts and data analysis procedures. Clear, well-written descriptions sim

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