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2.7.2 Noncompetitive Inhibition; 2.7.3 Uncompetitive Inhibition; 2.8 Enzyme Units and Concentrations; Suggested References; References; Problems; 3. Quantitation of Enzymes and Their Substrates; 3.1 Introduction; 3.2 Substrate Depletion or Product Accumulation; 3.3 Direct and Coupled Measurements; 3.4 Classification of Methods; 3.5 Instrumental Methods; 3.5.1 Optical Detection; 3.5.1.1 Absorbance; 3.5.1.2 Fluorescence; 3.5.1.3 Luminescence
3.5.1.4 Nephelometry3.5.2 Electrochemical Detection; 3.5.2.1 Amperometry; 3.5.2.2 Potentiometry; 3.5.2.3 Conductimetry; 3.5.3 Other Detection Methods; 3.5.3.1 Radiochemical; 3.5.3.2 Manometry; 3.5.3.3 Calorimetry; 3.6 Ultra-High-Throughput Assays (HTA); 3.7 Practical Considerations for Enzymatic Assays; Suggested References; References; Problems; 4. Immobilized Enzymes; 4.1 Introduction; 4.2 Immobilization Methods; 4.2.1 Nonpolymerizing Covalent Immobilization; 4.2.1.1 Controlled-Pore Glass; 4.2.1.2 Polysaccharides; 4.2.1.3 Polyacrylamide; 4.2.1.4 Acidic Supports; 4.2.1.5 Anhydride Groups
4.2.1.6 Thiol Groups4.2.2 Cross-Linking with Bifunctional Reagents; 4.2.3 Adsorption; 4.2.4 Entrapment; 4.2.5 Microencapsulation; 4.3 Properties of Immobilized Enzymes; 4.4 Immobilized Enzyme Reactors; 4.5 Theoretical Treatment of Packed-Bed Enzyme Reactors; Suggested References; References; Problems; 5. Antibodies; 5.1 Introduction; 5.2 Structural and Functional Properties of Antibodies; 5.3 Polyclonal and Monoclonal Antibodies; 5.4 Antibody-Antigen Interactions; 5.5 Analytical Applications of Secondary Antibody-Antigen Interactions; 5.5.1 Agglutination Reactions
5.5.2 Precipitation Reactions

Sommario/riassunto

Bioanalytical Chemistry provides a thorough introduction for students and practitioners with a broad range of backgrounds from chemistry to medicine. In so doing, it brings together many of the techniques commonly used by biochemists and molecular biologists. The text includes entire chapters on design and implementation of enzyme assays; mass spectrometry; and validation of new methods. Each chapter progresses from basic concepts to applications involving real samples, and ends with a set of problems, while an appendix contains selected answers. The authors have limited mathematical derivatio