660.634 ACS

CONTENTS

| 1. | Effects of Mutations on Thermodynamic Properties of Proteins | 2 |
|---------------|---|-----|
| 2. | Contribution of Hydrogen Bonding and the Hlydrophobic Effect to | |
| | Conformational Stability of Ribonuclease T1 | 18 |
| 3. | Protein Structure and Stability Assessment by Circular Dichroism Spectroscopy | 33 |
| 4. | Structure-Function Relationship of Hyperthermophilic Enzymes | 53 |
| 5. | Psychrophilic Proteinases from Athantic Cod | 68 |
| 6. | Thermal and PH Stress in Thermal Denaturation | 83 |
| 7. | Recombinant Protein Stabilization throught Engineered Metal-Chelating Sites | 102 |
| 8. | Engineering Nonaqueous Solvent-Compatible Enzymes | 109 |
| 9. | Mutational Effects on Inclusion Body Formation | 116 |
| 10. | Characterization and Refolding of B-Lactamase Inclusion Bodies | 126 |
| 11. | Participation of GroE Heat Shock Proteins in Polypeptide Folding | 140 |
| 12. | Cosolvent Effects on Refolding and Aggregation | 151 |
| 13. | Facilitation of Protein Folding and the Reversibility of Denaturation | 167 |
| 14. | Artificial Bifunctional Enzymes: A Toll To Improve Consecutive | |
| | Enzyme Reactions and Cell Metabolism | 174 |
| 15. | Proteins Designed for Adherence to Cellulose | 185 |
| 16. | Modification of Regulatory Communication in Aspartate Transearbamoylase | 195 |
| 17. | C1-Tetrahydrofolate Synthase: Dissection of Active Site and Domain Structure | |
| | by Protein Engineering | 210 |
| 18. | Properties of Native and Site-Mutagenized Cellobiohydrolase II | 220 |
| 19. | Recombinant B-Glucosidase of Trichoderma | 233 |
| 20. | Structure-Function Relationships in Cellulase Genes | 243 |
| 21. | Clostridium thermocellum Cellulosome | 251 |
| 22. | Protein Chemical Cross-Linking | 266 |
| 23. | Glutaraldehyde Cross-Linking | 283 |
| 24. | Chemical Modification: Effect on Enzyme Activities and Stabilities | 296 |
| 25. | Cross-Linking Techniques | 307 |
| Ind | exes | |
| Author Index | | 327 |
| Aff | iliation Index | 327 |
| Subject Index | | 328 |