

contents

1. ON THE COUPLING OF OXIDATION TO PHOSPHORYLATION IN BIOLOGICAL SYSTEMS. <i>J. H. Wang, Bioenergetics Laboratory, SUNY, Buffalo</i>	1
2. RECENT ADVANCES IN ZINC BIOCHEMISTRY. <i>B. L. Vallee, Biophysics Research Laboratory, Department of Biological Chemistry, Harvard Medical School and the Division of Medical Biology, Peter Bent Brigham Hospital, Boston</i>	37
3. IDENTIFICATION OF ACTIVE SITES IN IRON-SULFUR PROTEINS. <i>R. H. Holm, Department of Chemistry, Stanford University, Stanford, California</i>	71
4. STRUCTURAL STUDIES OF IONOPHORES AND THEIR ION-COMPLEXES. <i>J. D. Dunitz and M. Dobler, Organic Chemistry Laboratory, ETH Zurich</i>	113
5. METAL-OH AND ITS ABILITY TO HYDROLYSE (OR HYDRATE) SUBSTRATES OF BIOLOGICAL INTEREST. <i>D. A. Buckingham, Research School of Chemistry, Australian National University, Canberra</i>	141
6. DINITROGEN FIXATION IN PROTIC MEDIA: A COMPARISON OF BIOLOGICAL DINITROGEN FIXATION WITH ITS CHEMICAL ANALOGUES. <i>A.E. Shilov, Institute of Chemical Physics, Academy of Sciences of USSR, Moscow</i>	197
7. THE ACTIVATION OF MOLECULAR NITROGEN. <i>J. Chatt, Unit of Nitrogen Fixation, School of Molecular Sciences, University of Sussex, England</i>	229
8. CURRENT STATUS OF THE MECHANISM OF ACTION OF B ₁₂ -COENZYME. <i>R. H. Abeles, Graduate Department of Biochemistry, Brandeis University, Waltham, Massachusetts</i>	245

...continued

9. SOME BIO-INORGANIC CHEMICAL REACTIONS OF ENVIRONMENTAL SIGNIFICANCE.
J. M. Wood, J. D. Lipscomb, L. Que, Jr., R. S. Stephens, E. Munck, W. P. Ridley, L. Dizikes, A. Cheh, M. Francia, T. Frick, R. Zimmerman, and J. Howard, Freshwater Biological Institute, University of Minnesota, Navarre, Minnesota; and W. H. Orme-Johnson, Department of Biochemistry, University of Wisconsin, Madison, Wisconsin 261
10. ELECTRON TRANSFER MECHANISMS EMPLOYED BY METALLOPROTEINS.
S. Wherland and H. B. Gray, Arthur Amos Noyes Laboratory of Chemical Physics, California Institute of Technology, Pasadena, California 289
11. OXIDATION-REDUCTION PROPERTIES OF CYTOCHROMES AND PEROXIDASES.
R. J. P. Williams, G. R. Moore and P. E. Wright, Inorganic Chemistry Laboratory, Oxford University, England. 369