

CONTENT

BIOLOGICAL ELECTRON TRANSFER	
1. Overview of Biological Electron Transfer	3
THEORETICAL ASPECTS OF BIOLOGICAL ELECTRON TRANSFER	
2. Formalism for Electron Transfer and Energy Transfer in Bridged Systems	27
3. Some Aspects of Electron Transfer in Biological Systems	65
EXPERIMENTAL APPROACHES TO BIOLOGICAL ELECTRON TRANSFER: PEPTIDES AND PROTEINS	
4. Directional Electron Transfer in Ruthenium-Modified Cytochrome c	91
5. Photoinduced Electron Transfer Across Peptide Spacers	101
6. Energetics and Dynamics of Gated Reactions: Control of Observed Rates by Conformational Interconversion	125
7. Electronic Coupling and Protein Dynamics in Biological Electron-Transfer Reactions	147
8. Electrostatic, Steric, and Reorganizational Control of Electron Self-Exchange in Cytochromes	161
9. Electron-Transfer Kinetics of Singly Labeled Ruthenium(II) Polypyridine Cytochrome c Derivatives	181
EXPERIMENTAL APPROACHES TO BIOLOGICAL ELECTRON TRANSFER: INORGANIC COMPLEXES	
10. High-Pressure Studies of Long-Range Electron-Transfer Reactions in Solution	197
11. Intramolecular Electron Transfer from Photoexcited Ru(II) Diimine Complexes to N,N'-Diquaternarized Bipyridines	211
12. Bridged Mixed-Valence Systems: How Polarizable Bridging Ligands Can Lead to Interesting Spectroscopic and Conductive Properties	225
13. Chiral Recognition by Metal-Ion Complexes in Electron-Transfer Reactions	237
14. The Role of Free Energy in Interligand Electron Transfer	253
THEORETICAL ASPECTS OF SOLID-STATE SYSTEMS	
15. Band Orbital Mixing and Electronic Instability of Low-Dimensional Metals	269
16. Ceramic Superconductors: Single-Valent versus Mixed-Valent Oxides	287
17. Geometrical Control of Superconductivity in Copper Oxide Based Superconductors	323
EXPERIMENTAL ASPECTS OF SOLID-STATE SYSTEMS	
18. Organometallic Chemical Vapor Deposition: Strategies and Progress in the Preparation of Thin Films of Superconductors Having High Critical Temperatures	351

19. Centered Cluster Halides for Group-Three and Group-Four Transition Metals: A Versatile Solid-State and Solution Chemistry	369
20. Oxidative Intercalation of Graphite by Fluoroanionic Species: Evidence for Thermodynamic Barrier	391
21. Intermolecular Electron Transfer and Electron Delocalization in Molybdophosphate Heteropoly Anions	403
22. Organometallic Electron-Transfer Salts with Tetracyanoethylene Exhibiting Ferromagnetic Coupling	419
23. Stabilization of Conducting Aheteroaromatic Polymers in Large-Pore Zeolite Channels	433
Author Index	452
Affiliation Index	453
Subject Index	454