

CONTENTS OF VOLUME 6

Introduction to the Series	iii
Contributors to Volume 6	
Contents of Other Volumes	ix
ELECTROCHEMISTRY OF BIOLOGICAL COMPOUNDS	1
A. L. Underwood and Robert W. Burnett	
I. Introduction	
II. Pyridine Coenzymes and Nicotinamide Model Compounds	26
III. Purine and Pyrimidine Derivatives	55
IV. Flavin Compounds	60
V. Quinone Systems	64
VI. Iron Porphyrins	69
References	77
ELECTRODE PROCESSES IN SOLID-ELECTROLYTE SYSTEMS	87
Douglas O. Raleigh	
I. Introduction	88
II. Conductivity in Ionic Solids	90
III. Metal—Solid Electrolyte Interfaces	103
IV. Multiphase Electrodes	161
V. Miscellaneous Studies	178
References	179
THE FUNDAMENTAL PRINCIPLES OF CURRENT DISTRIBUTION AND MASS TRANSPORT IN ELECTROCHEMICAL CELLS	
John Newman	
I. Introduction	187

Contents of Volume 6

II. Transport in Electrolytic Solutions	190
III. Electrode Kinetics	192
IV. Convective-Transport Problems	193
V. The Graetz Problem	196
VI. Numerical Solution of Coupled, Ordinary Differential Equations	221
VII. The Annulus	229
VIII. Fluid Flow to a Rotating Disk	234
IX. Mass Transfer to a Rotating Disk	238
X. Singular--Perturbation Expansions	242
XI. Similarity Transformations	268
XII. Free Convection	272
XIII. Combined Free and Forced Convection	275
XIV. Limitations of Surface Reactions	276
XV. Integral Equations for Diffusion Problems	277
XVI. Not-So-Small Diffusion Coefficients	279
XVII. Elliptic Regions	279
XVIII. Coordinate Transformations	309
XIX. Applications of Potential Theory	313
XX. Currents Below the Limiting Current	335
XXI. Conclusions	337
Acknowledgment	338
Nomenclature	338
References	342
 AUTHOR INDEX	 353
SUBJECT INDEX	365