

CONTENTS OF VOLUME 4

Introduction to the Series

Contributors to Volume 4

Contents of Other Volumes

xi

Sine Wave Methods in the Study of Electrode Processes

MARGARETHA SLUYTERS-REHBACH AND JAN H. SLUYTERS

I. Introduction	3
II. Principles of Alternating-Current Electrodynamics	5
III. The Cell Impedance in the Case of a Simple Electrode Reaction	11
IV. The Complex Plane Analysis of Cell Impedances	33
V. Extensions of the Theory with a View to Cell Design	49
VI. Extensions of the Theory to More Complicated Reaction Mechanisms	65
VII. Noncapacitive Behavior of the Double Layer Impedance	75
VIII. Double Layer Effects Influencing the Faradaic Process	81
IX. Specific Adsorption of Electroactive Species	93
X. Instrumentation	109
Symbols	117
References	121

The Theory and Practice of Electrochemistry with Thin Layer Cells

129

A. T. HUBBARD AND F. C. ANSON

I. Introduction	130
II. Theory	131
III. Construction of Thin Layer Electrodes	159
IV. Applications	179
References	208
Appendix. Derivation of Rigorous Equations for Thin Layer Coulometry, Voltammetry, and Chronopotentiometry.	210

Application of Controlled Potential Coulometry to the Study of Electrode Reaction	215
ALLEN J. BARD AND K. S. V. SANTHANAM	
I. Introduction	216
II. Theory	217
III. Applications	252
IV. Experimental Methods	288
Nomenclature	310
References	311
<i>Author Index</i>	316
<i>Subject Index</i>	