



Electrochemical Systems, 3rd Edition

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Wiley-Interscience, 2004. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: PREFACE TO THE THIRD EDITION.PREFACE TO THE SECOND EDITION.PREFACE TO THE FIRST EDITION.1 INTRODUCTION.1.1 Definitions.1.2 Thermodynamics and Potential.1.3 Kinetics and Rates of Reaction.1.4 Transport.1.5 Concentration Overpotential and the Diffusion Potential.1.6 Overall Cell Potential.Problems.Notation.PART A: THERMODYNAMICS OF ELECTROCHEMICAL CELLS.2 THERMODYNAMICS IN TERMS OF ELECTROCHEMICAL POTENTIALS.2.1 Phase Equilibrium.2.2 Chemical Potential and Electrochemical Potential.2.3 Definition of Some Thermodynamic Functions.2.4 Cell with Solution of Uniform Concentration.2.5 Transport Processes in Junction Regions.2.6 Cell with a Single Electrolyte of Varying Concentration.2.7 Cell with Two Electrolytes, One of Nearly Uniform Concentration.2.8 Cell with Two Electrolytes, Both of Varying Concentration.2.9 Standard Cell Potential and Activity Coefficients.2.10 Pressure Dependence of Activity Coefficients.2.11 Temperature Dependence of Cell Potentials.Problems.Notation.References.3 THE ELECTRIC POTENTIAL.3.1 The Electrostatic Potential.3.2 Intermolecular Forces.3.3 Outer and Inner Potentials.3.4 Potentials of Reference Electrodes.3.5 The Electric Potential in Thermodynamics.Notation.References.4 ACTIVITY COEFFICIENTS.4.1 Ionic Distributions in Dilute Solutions.4.2 Electrical Contribution to the Free Energy.4.3 Shortcomings of the Debye-Hu'ckel Model.4.4 Binary Solutions.4.5 Multicomponent Solutions.4.6 Measurement of Activity Coefficients.4.7 Weak Electrolytes.Problems.Notation.References.5 REFERENCE ELECTRODES.5.1 Criteria for Reference Electrodes.5.2 Experimental Factors Affecting The Selection of Reference Electrodes.5.3 The Hydrogen Electrode.5.4 The Calomel Electrode and Other Mercury-Mercurous Salt Electrodes.5.5 The Mercury-Mercuric...



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Reviews

It is fantastic and great. It is written in easy words and phrases instead of confusing. I am just delighted to explain how this is actually the best book I have got read through during my individual life and might be the finest publication for ever.

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A very wonderful book with lucid and perfect answers. It is probably the most incredible book I have studied. It has been designed in an exceptionally simple way and is particularly just after I finished reading through this publication by which in fact transformed me, altered the way in my opinion.

-- **Macey Schneider**