

<<电化学专业英语>>

图书基本信息

书名：<<电化学专业英语>>

13位ISBN编号：9787560327624

10位ISBN编号：7560327621

出版时间：2008-8

出版时间：哈尔滨工业大学出版社

作者：郑卫 主编

页数：326

字数：292000

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<电化学专业英语>>

内容概要

本书介绍了电化学中常用的一些基本概念、基本原理及常用的研究地，如循环伏安法、交流阻抗法、极谱法和脉冲伏安法，并介绍了电化学在腐蚀防护和生物电化学中的应用。

本书可作为电化学专业的本科生教材，也可供从事电化学科学研究的科研工作者和技术人员参考。

书籍目录

1 Introduction 1.1 The Scope of Electrochemistry 1.2 The Nature of Electrode Reactions 1.3 Thermodynamics and Kinetics 1.4 Methods for Studying Electrode Reactions 1.5 Applications of Electrochemistry

2 Introduction to the Fundamental Concepts of Electrochemistry 2.1 Introduction 2.2 Electrochemical Cells and Reactions 2.3 Electron Transfer 2.4 Mass Transport 2.5 The Interaction of Electron Transfer and Mass Transport 2.6 Coupled Chemical Reactions 2.7 Adsorption 2.8 Phase Formation

3 Kinetics of Electrode Reactions 3.1 Introduction 3.2 Essentials of Electrode Reactions 3.3 Butler-Volmer Model of Electrode Kinetics 3.4 Implications of the Butler-Volmer Model for the One-step, One-electron Process 3.5 Multistep Mechanisms

4 The Electrical Double Layer 4.1 Introduction 4.2 The Thermodynamics of Charged Interfaces 4.3 The Structure of the Electrical Double Layer 4.4 The Adsorption Isotherm 4.5 The Effect of Double Layer Structure on Electrode Kinetics 4.6 Experimental Methods

5 Electrochemical Experiments 5.1 Introduction 5.2 Electrode Materials 5.3 The Working Electrode: Preparation and Cleaning 5.4 The Cell: Measurements at Equilibrium 5.5 The Cell: Measurements away from Equilibrium 5.6 Calibration of Electrodes and Cells 5.7 Instrumentation: General 5.8 Analytical Instrumentation

6 Potential Sweep Techniques and Cyclic Voltammetry 6.1 Introduction 6.2 Reversible Reactions 6.3 Irreversible Systems 6.4 Coupled Homogeneous Reactions7 Polarography and Pulse Voltammetry 8 Alternating Current Techniques 9 Corrosion 10 Bioelectrochemistry References

<<电化学专业英语>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介, 请支持正版图书。

更多资源请访问:<http://www.tushu007.com>