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Nota di contenuto	ANALYTICAL ELECTROCHEMISTRY; CONTENTS; Preface; Abbreviations and Symbols; 1 Fundamental Concepts; 1.1 Why Electroanalysis?; 1.2 Faradaic Processes; 1.2.1 Mass-Transport-Controlled Reactions; 1.2.1.1 Potential-Step Experiment; 1.2.1.2 Potential-Sweep Experiments; 1.2.2 Reactions Controlled by the Rate of Electron Transfer; 1.2.2.1 Activated Complex Theory; 1.3 Electrical Double Layer; 1.4 Electrocapillary Effect; 1.5 Supplementary Reading; Problems; References; 2 Study of Electrode Reactions and Interfacial Properties; 2.1 Cyclic Voltammetry; 2.1.1 Data Interpretation 2.1.1.1 Reversible Systems2.1.1.2 Irreversible and Quasi-reversible Systems; 2.1.2 Study of Reaction Mechanisms; 2.1.3 Study of Adsorption Processes; 2.1.4 Quantitative Applications; 2.2 Spectroelectrochemistry; 2.2.1 Experimental Arrangement; 2.2.2 Principles and Applications; 2.2.3 Electrochemiluminescence; 2.2.4 Optical Probing of Electrode-Solution Interfaces; 2.3 Scanning Probe Microscopy; 2.3.1 Scanning Tunneling Microscopy; 2.3.2 Atomic Force Microscopy; 2.3.3 Scanning Electrochemical Microscopy; 2.4

Electrochemical Quartz Crystal Microbalance; 2.5 Impedance Spectroscopy; Examples
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Sommario/riassunto

Third Edition covers the latest advances in methodologies, sensors, detectors, and microchipsThe greatly expanded Third Edition of this internationally respected text continues to provide readers with a complete panorama of electroanalytical techniques and devices, offering a balancebetween voltammetric and potentiometric techniques. Emphasizing electroanalysis rather than physical electrochemistry, readers gain a deep understanding of the fundamentals of electrodereactions and electrochemical methods. Moreover, readers learn to apply their newfoundknowledge and skills to solve rea