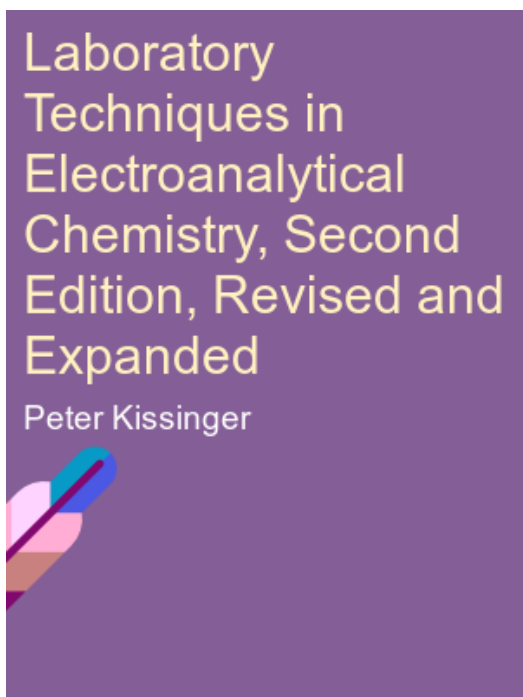


[PDF] Download Laboratory Techniques in Electroanalytical Chemistry, Second Edition, Revised and Expanded Full Book



Book info:

Author: *Peter Kissinger*

Format: *1008 pages*

Publication date: *23 Jan 1996*

Publisher: *Taylor & Francis Ltd*

Imprint: *CRC Press*

Release location: *London, United Kingdom*

Edition: *New edition*



Book Synopsis:

This volume provides a practical, intuitive approach to electroanalytical chemistry, presenting fundamental concepts and experimental techniques without the use of technical jargon or unnecessarily extensive mathematics. This edition offers new material on ways of preparing and using microelectrodes, the processes that govern the voltammetric behavior of microelectrodes, methods for characterizing chemically modified electrodes, electrochemical studies at reduced temperatures, and more. The authors cover such topics as analog instrumentation, overcoming solution resistance with stability and grace in potentiostatic circuits, conductivity and conductometry, electrochemical cells, carbon electrodes, film electrodes, microelectrodes, chemically modified electrodes, mercury electrodes, and solvents and supporting electrolytes.

See also:

Table of contents

An overview; fundamental concepts of analytical electrochemistry; large-amplitude controlled-potential techniques; large-amplitude controlled-current techniques; small-amplitude and related controlled-potential techniques; introduction to analog instrumentation; overcoming solution resistance with stability and grace in potentiostatic circuits; conductivity and conductometry; electrochemical cells; carbon electrodes; film electrodes; microelectrodes; chemically modified electrodes; mercury electrodes; solvents and supporting electrolytes; electrochemical studies at reduced temperature; electroanalytical chemistry in molten salts; vacuum line techniques; electrochemistry in the dry box; digital simulation of electrochemical phenomena; evaluation of mechanisms of transition metal complexes; electrochemical preconcentration; controlled-current coulometry; application of electrochemistry to pharmaceutical analysis; electrochemical detection in liquid chromatography and capillary electrophoresis; photonic electrochemistry; principles and techniques of electrochemical-electron paramagnetic resonance experiments.