F. Scholz (Ed.)

Electroanalytical Methods

Guide to Experiments and Applications

2nd, revised and extended edition

Springer

Fritz Scholz
Editor

Electroanalytical Methods

Guide to Experiments and Applications

Second, Revised and Extended Edition

With contributions by
A.M. Bond, R.G. Compton, D.A. Fiedler, G. Inzelt,
H. Kahlert, Š. Komorsky-Lovrić, H. Lohse, M. Lovrić,
F. Marken, A. Neudeck, U. Retter, F. Scholz, Z. Stojek

Springer

Editor
Prof. Dr. Fritz Scholz
University of Greifswald
Inst. of Biochemistry
Felix-Hausdorff-Str. 4
17487 Greifswald
Germany
fscholz@uni-greifswald.de

QD
115
E1.2
2010

ISBN 978-3-642-02914-1 e-ISBN 978-3-642-02915-8
DOI 10.1007/978-3-642-02915-8
Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2009935962

00077652

© Springer-Verlag Berlin Heidelberg 2010
This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilm or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.
The use of general descriptive names, registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Cover design: WMXDesign GmbH, Heidelberg

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Contents

Part II Electroanalytical Techniques

F. Scholz (Ed.)

Electroanalytical Methods

Researchers and professionals will find a hands-on guide to successful experiments and applications of modern electroanalytical techniques here. The new edition has been completely revised and extended by a chapter on quartz-crystal microbalances. The book is written for chemists, biochemists, environmental and materials scientists, and physicists. A basic knowledge of chemistry and physics is sufficient for understanding the described methods. Electroanalytical techniques are particularly useful for qualitative and quantitative analysis of chemical, biochemical, and physical systems. Experienced experts provide the necessary theoretical background of electrochemistry and thoroughly describe frequently used measuring techniques. Special attention is given to experimental details and data evaluation.

From Reviews of the Previous Edition

"This guide is warmly recommended."
Advances in Food Sciences

"Fritz Scholz and his twelve-strong team … are to be congratulated on the production of a highly readable and well-structured book."
Chemical Educator

"The book fills a gap with regard to some methods that have previously not been adequately covered … it also provides many practical hints."
Angewandte Chemie

ISBN 978-3-642-02914-1

springer.com