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Book review

Laboratory Techniques in Electroanalytical Chemistry
P.T. Kissinger and W.R. Heineman (Editors); Marcel Dekker Inc., New York, Basel; Hong Kong, 1996, xx+986 pp., US$ 79.75, ISBN 07-82477-94457-1.

It is 12 years since the first edition of this book was published. The physical state of my own copy of the first edition exhibits all the symptoms of a very highly used reference book and I am delighted to report that I would also expect a very high usage of this timely second edition. The second edition has provided the editors with an opportunity to both revise chapters included in the original edition and to add new chapters describing important techniques that have emerged in the last few years (e.g. chemically modified electrodes and electrochemical studies at low temperature). In keeping with the format of the first edition, each of the 29 chapters has been prepared by authors who have made significant contributions to the subjects they overview. Almost all important analytical, mechanistic and synthetic areas related to electrochemistry are covered in a very readable and critical style.

The early chapters focus on the principles and instrumentation associated with the commonly used techniques. The chapters that follow should enable a reader to appreciate the practical aspects of electrodes, solvents, electrolytes as well as how to solve analytical problems. Methodology for solving the nuances of mechanisms of electrode processes (heterogeneous and homogeneous aspects) are also highlighted in these chapters. The advantage of hybrid techniques where electroanalytical methodology is coupled with spectroscopy or chromatography receive considerable attention. As was the case in the first edition, equilibrium potentiometric methods and techniques related to energy (batteries, fuel cells etc.) are not specifically considered.

In summary, I highly recommend this second edition to both teachers of graduate level courses in electroanalytical chemistry and their students. Additionally, anyone involved, or likely to be involved, in research associated with the use of electroanalytical procedures would benefit considerably by access to the contents of this book. Generally, readers can expect to find an up to date account of each aspect of the subject, although there are a few chapters that remain almost intact from the first edition, i.e. the extent of revision is not uniform.

Clayton, Vic., Australia

Alan M. Bond

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