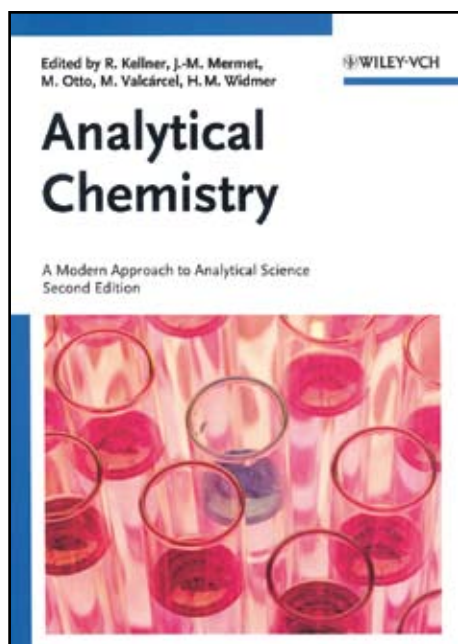


Book corner



Robert A. Kellner, Jean-Michel Mermet, Matthias Otto, Miguel Valcárcel, H. Michael Widmer (Eds.)

Analytical Chemistry

A Modern Approach to Analytical Science

2nd edition, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, 2004, XXVIII + 1181 pages, hardcover

ISBN 3-527-30590-4

Why settle for less when you can have the whole of analytical chemistry in a single book?

The successful all-in-one guide to modern analytical chemistry is now available in a new and updated edition. From the foundations of analytical science to state-of-the-art techniques and instrumentation – all you will ever need to know is explained here. The text covers both general analytical chemistry and instrumental analysis and may be used for most analytical chemistry courses offered today.

Carefully chosen worked examples show how analytical problems can effectively be solved and how calculations should be performed. Study questions and recommended reading for further study are provided for each learning unit.

The second edition has been carefully revised to keep up-to-date with advances in the technology of analytical methods in the laboratory and in the workplace, including newly written chapters on multidimensional chromatography, sensors and screening systems.

With its broad scope, the text doubles as a reliable reference for virtually all analytical problems encountered during the course of study and beyond.

Contents:

- Introduction to analytical chemistry
- Basic statistics and chemometrics
- Methods based on chemical reactions
- Electroanalytical methods
- Separation methods
- Atomic and molecular spectroscopy
- Surface and structural analysis
- Automation, miniaturization and simplification of analytical processes
- Appendix
- Index

Jack Cazes (Ed.)

Ewings's Analytical Instrumentation Handbook

3rd edition, Marcel Dekker, Inc., New York, 2005, XXIV + 1037 pages, hardcover
ISBN 0-8247-5348-8

Thoroughly revised and updated, this much-anticipated third edition

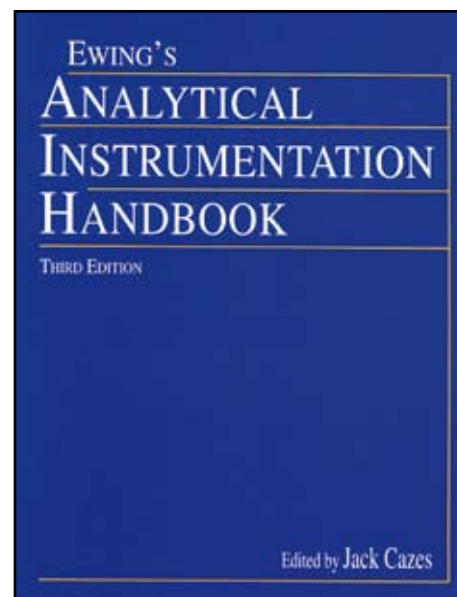
- offers eight new chapters covering topics such as microchip and biosensor technologies, the validation of chromatographic methods, gel permeation and size exclusion chromatography, field-flow fractionation, countercurrent chromatography, hyphenated techniques in chromatography, and thin-layer chromatography,
- studies a vast array of modern technologies and instrumentation practices – providing a firm foundation in theory and methodology, as well as current applications in the field,
- presents examples of commercially available equipment that illustrate design features discussed in the text,
- contains references to the most recent literature on the topic,
- provides a guide for workers in analytical chemistry who need a starting place for information about a specific instrumental technique.

Compiled by the editor of Dekker's distinguished «Chromatographic Science» series, this reader-friendly reference serves as a unique and stand-alone guide for anyone requiring clear instruction on the most frequently utilized analytical instrumentation techniques. More than just a catalog of commercially available instruments, the chapters are written from the standpoint of instrumentation as it is in use today, with an introductory description of the technique(s) and a theoretical treatment of the science and technology, wherever it is applicable or where it will facilitate an understanding of the instrumentation.

«Ewing's Analytical Instrumentation Handbook» will help researchers and specialists select the most appropriate technique for their particular application.

Contents:

- The laboratory use of computers
- Flow injection/sequential injection analysis
- Inductively coupled plasma optical emission spectrometry
- Atomic absorption spectrometry and related techniques
- Ultraviolet, visible, near-infrared spectrophotometers
- Molecular fluorescence and phosphorescence
- Vibrational spectroscopy: instrumentation for infrared and Raman spectroscopy
- X-ray methods
- Photoacoustic spectroscopy
- Techniques of chiroptical spectroscopy
- Nuclear magnetic resonance
- Electron paramagnetic resonance
- X-ray photoelectron and Auger electron spectroscopy
- Mass spectrometry instrumentation
- Thermoanalytical instrumentation and applications
- Potentiometry: pH and ion-selective electrodes
- Voltammetry
- Electrochemical stripping analysis
- Measurement of electrolytic conductance
- Microfluidic lab-on-a-chip
- Biosensor technology
- Instrumentation for high-performance liquid chromatography
- Gas chromatography
- Supercritical fluid chromatography instrumentation
- Capillary electrophoresis
- Gel permeation and size exclusion chromatography
- Field-flow fractionation
- Instrumentation for countercurrent chromatography
- HPLC-hyphenated techniques
- Thin-layer chromatography
- Validation of chromatographic methods
- Index



«This is a remarkable book. The main impression it [leaves] is that of the completeness of the techniques used in chemical analysis. ... This book is a valuable new source of information describing the latest developments in analytical techniques for scientists working within the field of analytical chemistry. ... This book is highly recommended for advanced undergraduate students of analytical chemistry. It is a must for researchers in the field of analytical chemistry.»

Instrumentation Science & Technology