

## Publications Received

**Recent Developments in Chromatography and Electrophoresis, 10. Proceedings of the 10th International Symposium on Chromatography and Electrophoresis, Venice, 19 and 20 June, 1979.**

Edited by Alberto Frigerio and Malcolm McCamish. *Analytical Chemistry Symposia Series—Volume 3*. Pp. x + 342. Elsevier. 1980. Price \$68.25; Dfl140. ISBN 0 444 41871 7.

The symposium on which this volume is based was organised by the Italian Group for Mass Spectrometry in Biochemistry and Medicine, in conjunction with the Belgian Society for Pharmaceutical Sciences and the Italian Society for Pharmaceutical Sciences, to discuss potential applications of chromatography and electrophoresis. The papers covered a wide range of topics with emphasis on newer developments and original research. The contents include

sections on Drug Analysis, Electrophoresis, Analysis of Endogenous Compounds, Environmental Studies, Fluorometry and Instrumentation.

**Analytical Techniques in Occupational Health Chemistry.** Based on a symposium sponsored by the Division of Chemical Health and Safety at the 176th Meeting of the American Chemical Society, Miami Beach, Florida, September 13–14, 1978.

Edited by Donald D. Dollberg and Allen W. Verstuyft. *ACS Symposium Series*, 120. Pp. x + 318. American Chemical Society. 1980. Price \$28. ISBN 0 8412 0539 6.

Chemists working in the occupational health - industrial hygiene field face problems of increasing complexity and scope. This book contains 16 chapters, which discuss general methods of air sampling and specific measurement techniques. The first chapter addresses the problem of generating test atmospheres. One chapter outlines the planning and introduction of a monitoring programme; another details the study of harmful vapours in an academic laboratory. Several chapters deal with the development and subsequent improvement of air-monitoring systems. Specific

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analyses are included for respirable quartz, aromatic amines, polynuclear aromatic hydrocarbons, vinyl acetate, mercaptans, metal fumes and protein-bearing particles. Optical microscopy, atomic-absorption spectroscopy and high-performance liquid chromatography are among the types of instrumentation involved in these studies.

### **Experiments in Environmental Chemistry. A Laboratory Manual.**

P. D. Vowles and D. W. Connell. *Pergamon Series on Environmental Science. Volume 4*. Pp. viii + 102. Pergamon Press. 1980. Price \$20, £9 (hardback); \$9.95, £4.50 (softback). ISBN 0 08 024010 0 (hardback); 0 08 024009 7 (softback).

This book describes 14 experiments that have been designed to provide the laboratory and field component of a first course in environmental chemistry, illustrating some important chemical processes and substances that occur in the environment, as well as developing practical skills in their investigation. The programme has been assembled assuming that students have a basic background in chemistry and chemical laboratory procedures. There are five sections, which cover Biochemical Processes in Aquatic Systems; Toxic Substances in the Environment (including Gas Chromatography of Volatile Hydrocarbons); Food Additives and Contaminants; Chemical Ecology; and a Field Survey of Stream Pollution.

### **Cell Potassium.**

Roderick P. Kernan. *Transport in the Life Sciences, Volume 1*. Pp. xvi + 200. John Wiley. 1980. Price £17.70. ISBN 0 471 04806 2.

This volume includes a section on The Measurement of Cellular Potassium, which covers the Analysis of Tissue Biopsies, Whole Body Counters, Exchangeable Potassium Measurement and Direct Measurement of Intracellular Potassium by Means of Ion-Selective Micro-electrodes.

### **Petroleum in the Marine Environment. Proceedings of a symposium jointly sponsored by the Divisions of Petroleum and Analytical Chemistry at the 176th Meeting of the American Chemical Society, Miami Beach, Florida, September 13-14, 1978.**

Edited by Leonidas Petrakis and Fred T. Weiss. *Advances in Chemistry Series, No. 185*. Pp. x + 371. American Chemical Society. 1980. Price \$42. ISBN 0 8412 0475 6.

The analytical chemistry required to charac-

terise petroleum efficiently and reproducibly is problematic because of the complex nature of petroleum. The first two chapters of this sixteen chapter volume comprise a thorough introduction to the complex issues involved in this field (including the Analytical Chemistry of Petroleum); subsequent chapters report pure technological advances and applications of methodology. Topics discussed include oil spill identification, the solubility of polycyclic aromatic hydrocarbons in aqueous systems and the role of non-hydrocarbons in the analysis of virgin and biodegraded petroleum. The analyses of a variety of samples, including sediments, zooplankton and macrofauna, and seawater, are detailed. A recurrent theme in this volume is the need for universal standards and standard techniques to afford inter-laboratory consistency.

### **Lecture Notes in Chemistry. Volume 17. Electrochemistry. A Reformulation of the Basic Principles.**

Hermann Gerhard Hertz. Pp. x + 254. Springer-Verlag. 1980. Price DM42; \$24.80 (softback). ISBN 3 540 10008 3; 0 387 10008 3.

### **Colour: Its Measurement, Computation and Application.**

G. J. Chamberlin and D. G. Chamberlin. Pp. xii + 137. Heyden. 1980. Price \$19.50; £8.60; DM40.50. ISBN 0 85501 222 6.