JCCCAT (21) 1385–1460 (1984)

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 21
1984

CONTENTS

AUTHOR INDEX

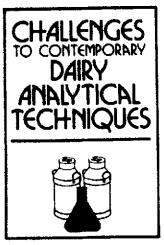
NEW BOOKS from The Royal Society of Chemistry

ORDERING

RSC Members should send their orders to:
The Royal Society of Chemistry,
The Membership Officer, 30 Russell Square,
London WC1B 5DT.

Non-RSC Members
The Royal Society of Chemistry,
Distribution Centre, Blackhorse Road,
Letchworth, Herts SG6 1HN, England.

Challenges to Contemporary Dairy Analytical Techniques



Over many years international organizations, national organizations, and private concerns have prepared standardization methods of analysis for food products, including milk and milk products, for purposes of quality control, assessment of nutritive content, enforcement of legal requirements, and affirmation of safety. This activity is concerned with identifying the most appropriate current methodology and codifying it in authoritative documents. *Challenges to Contemporary Dairy Analytical Techniques* appraises the problems that will be faced by analysis of dairy products in the future and examines the means that are likely to be used to solve them. This publication is thus concerned with the application of methods in quality control and with the techniques that will be in regular use in control, whether highly sophisticated or not and whether automated and/or indirect in principle.

Brief Contents:
Collaborative Studies and Reference Materials; Determination of Major Constituents: Automated, Instrumental Methods; Determination of Microconstituents: Advanced Methods; Determination of Compounds Formed during Processing and Storage (Artefacts) and Contaminants.

Special Publication No. 49 (1984)
Softcover 350 pp 0 85186 925 4
Price £16.00 ($29.00)
RSC Members £12.00

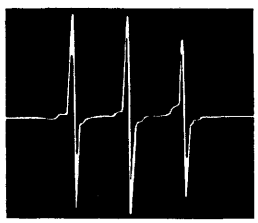
Food: The Chemistry of its Components

By T. P. Coultate
This book gives a detailed account of the chemistry of the principal substances of which our food is composed. Both the macro-components, the carbohydrates, lipids and proteins, which can be classified by their chemical structures, and the micro-components, the colours, flavours, vitamins and preservatives, which are classified in terms of function are considered. Throughout the book, Dr Coultate's theme is the relationship between the chemical structure of a substance and its contribution to the properties and behaviour of foodstuffs—whether observed in the laboratory, the factory, the kitchen or the dining room.

Contents:
Introduction, carbohydrates, lipids, proteins, colours, flavours, vitamins, preservatives, EEC numbers of food additives. Subject index.

RSC Paperback (1984)
Softcover 202 pp 0 85186 483 X
Price £5.95 ($11.00)
No discount for RSC Members

Electron Spin Resonance Vol. 8

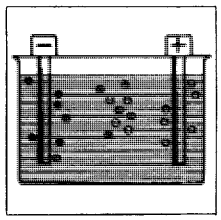


Senior Reporter: P. B. Ayscough
A review of the literature published between June 1981 and November 1982.

Brief Contents:
Laser Magnetic Resonance Spectroscopy; Theoretical Aspects of E.S.R.; Triplets and Biradicals; ENDOR and ELDOR; Transition-metal Ions; Inorganic and Organometallic Radicals; Organic Radicals in Solids; Organic Radicals in Solution; Applications of E.S.R. in Polymer Chemistry; Spin Labels: Biopolymers; Spin Labels: Biomembranes; Metalloproteins; Applications of E.S.R. in Medicine.

Specialist Periodical Report
Hardcover 524 pp 0 85186 821 5
Price £59.00 ($106.00)
RSC Members £36.00

Electrochemistry Vol. 9

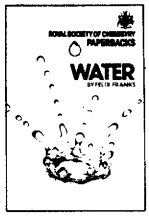


Senior Reporter: D. Pletcher
A review of recent literature published during 1981 and 1982.

Brief Contents:
The Electrochemistry of Porous Electrodes: Flow-through and Three-phase Electrodes; Semiconductor Electrochemistry; Spectroelectrochemistry; The Electrochemistry of Transition-metal Complexes; Organic Electrochemistry—Synthetic Aspects; Solid-State Gas Sensors and Monitors.

Specialist Periodical Report
Hardcover 320 pp 0 85186 077 X
Price £63.00 ($113.00)
RSC Members £39.00

Water Revised 1st Edition



by Felix Franks
The book considers the present state of our knowledge of liquid water, its remarkable physical properies and how these give rise to a unique structure, its influence on the interactions between solutes, its role in maintaining biologically active structures, its involvement in chemical reactions and the problems posed by its management and in providing sufficient amounts of water of adequate quality.

Contents:
Occurrence, importance and physical properties; The place of water in the general classification of liquids; Isotopic composition; The structure of the water molecule and the nature of the hydrogen bond in water: Ice—its structure and dynamics; The structure of liquid water; The dynamic properties of liquid water; Towards a molecular description of water; Aqueous solutions of simple molecules; Aqueous solutions of electrolytes; The role of water in the stabilisation of biologically significant structures; Reactions in aqueous solutions; Water in the environment—quality, availability and exploitation; Summary and future propsects.

RSC Paperback (1984)
Softcover 102 pp 0 85186 473 2
Price £2.50 ($6.00)
No discount for RSC Members

ROYAL SOCIETY OF CHEMISTRY

The Royal Society of Chemistry, Burlington House Piccadilly London W1V 0BN