

CS Publications News

SPECIALIST PERIODICAL REPORTS

Terpenoids and Steroids Vol. 7

Senior Reporter: Professor J. R. Hanson
University of Sussex

The seventh volume in this highly successful series covers literature published between September 1975 and August 1976 following a style similar to that adopted in previous volumes.

"The quality of all the reviews in this volume is excellent. One can do nothing but wholeheartedly recommend this volume to all those chemists, and indeed biochemists, who are interested in terpenoids in general and/or steroids in particular."—*Robert J. Pryce, Biochemical Society Transactions reviewing Vol. 6.*

"To chemists interested in research on the chemistry of terpenoids and steroids (this series) has been of indispensable assistance in keeping them abreast and in perspective of current developments. The present volume is as necessary and as elegant as its predecessors."—*Philip W. Le Quesne, Journal of Medicinal Chemistry reviewing Vol. 5.*

Brief contents

Part I Terpenoids

Monoterpenoids; Sesquiterpenoids; Diterpenoids; Triterpenoids; Carotenoids and Polyterpenoids; Biosynthesis of Terpenoids and Steroids.

Part II Steroids

Steroid Properties, Reactions, and Partial Synthesis; Steroid Total Synthesis.

Clothbound 360pp 8 $\frac{3}{4}$ " × 5 $\frac{3}{8}$ " £25.00 (CS Members £18.75)

Mass Spectrometry Vol. 4

Senior Reporter: Dr. R. A. W. Johnstone
University of Liverpool

This fourth volume reviews literature published between July 1974 and June 1976 following a similar format to that adopted in previous volumes.

"The specialists writing in the current volume have succeeded admirably in providing a critical overview of the entire field. This volume is strongly recommended; it is further recommended that each researcher read the entire volume to obtain a thumbnail sketch of truly significant progress that has been made in mass spectrometry over the period covered by this review."—*Jean H. Futrell, Journal of the American Chemical Society reviewing Vol. 3.*

Brief contents

Theory and Energetics in Mass Spectrometry; Structure and Mechanism in Mass Spectrometry; Computerized Data Acquisition and Interpretation; Trends in Instrumentation; Alternative Methods of Ionization and Analysis; Field Ionization and Field Desorption; Gas Chromatography—Mass Spectrometry; Drug Metabolism; Negative Chemical Ionization Mass Spectrometry; Reactions of Organic Functional Groups—Positive and Negative Ions; Natural Products; Organometallic, Co-ordination, and Inorganic Compounds.

Clothbound 369pp 8 $\frac{3}{4}$ " × 5 $\frac{3}{8}$ " £22.50 (CS Members £17.00)

Saturated Heterocyclic Chemistry Vol. 4

Senior Reporters

Dr. M. F. Ansell, *Queen Mary College, London*
and Dr. G. Pattenden, *University of Nottingham*

Volume 4 is similar in scope and format to previous volumes and covers the literature published during 1974.

The authors have presented their material in a concise and judiciously selected manner. Overlap with other specialist reviews has been largely avoided. Apart from providing an easily readable account of work reflecting a wide spectrum of organic chemistry, the reader will find that simply browsing through the pages will provide new ideas."—*Journal of Molecular Structure reviewing Vol. 3.*

Brief contents

Three-membered Rings: Oxirans; Aziridines; Thiirans; Episelidenes and Episelenurenes; Rings containing More than One Heteroatom.

Four-membered Rings: Physical Methods; Formation; Reactions.

Five- and Six-membered Rings and Related Fused Systems Conformation: Analysis of Reduced Heterocycles; Cycloaddition Reactions; General Chemistry of Saturated Heterocycles.

Medium-sized Rings: Conformational Analysis; Seven- and Eight-membered Rings containing One, Two and Three or More Heteroatoms; Nine- and Ten-membered Rings; Crown Ethers and Related Non-bridged Systems; Cryptands.

Bridged Heterocyclics: Physical Methods; Nitrogen Compounds; Cryptates; Oxygen and Sulphur; Miscellaneous Compounds.

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Biosynthesis Vol. 5

Senior Reporter: Dr. J. D. Bu'Lock
University of Manchester

Partly because of a slackening in the pace of really new discovery in some traditional areas and partly as an attempt to bring the period of coverage closer to the date of publication, this volume covers a two-year period 1975–1976. It also continues the policy of publishing at least one longer term review of important topics and contains a major account of the biosynthesis of oligopeptides by Dr. L. C. Vining and Dr. J. L. C. Wright.

"The reporters are to be congratulated on a fine job in selecting and organising information from a field whose scope is continuing to broaden. The Report is certainly essential reading and an invaluable reference for anyone who is actively engaged in research in biosynthesis or related areas."—*Ronald J. Parry, Journal of the American Chemical Society reviewing Vol. 4.*

Brief contents

Biosynthesis of Polyketides; Phenolic Compounds derived from Shikimate; The Biosynthesis of C₅–C₂₀ Terpenoid Compounds; Biosynthesis of Triterpenoids, Steroids, and Carotenoids; Non-protein Amino-acids, Cyanogenic Glycosides and Glucosinolates; Biosynthesis of Alkaloids; Biosynthesis of Oligopeptides.

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CS Publications News

SPECIAL PUBLICATION No. 28

Recent Advances in the Chemistry of β -Lactam Antibiotics

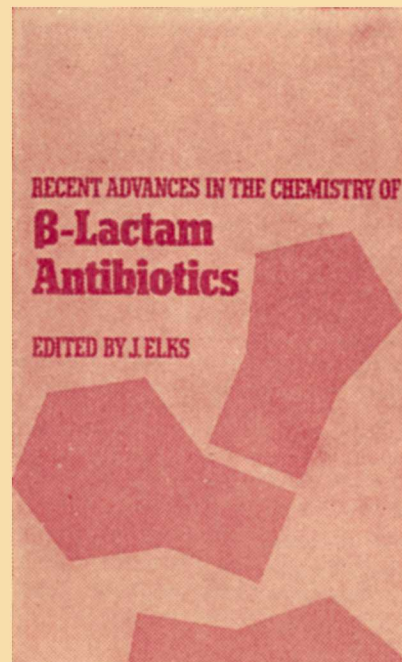
Edited by J. Elks

More than thirty years after the introduction of penicillin G into clinical practice, the β -lactams remain much the most widely used group of antibiotics.

Until a few years ago the chemistry of the β -lactam antibiotics was limited to changes on the periphery of the intact penam or cephem nucleus. Methods have now been developed for the cleavage of the thiazolidine ring of penicillins, modification or replacement of the residue attached to the β -lactam ring, and subsequent re-cyclisation to give a new penicillin, a cephalosporin, or a fused β -lactam system unknown in Nature. By such partially synthetic, as well as by new totally synthetic methods, a greatly increased range of structures is being produced, with the probability that some, at least, will possess valuable biological properties.

The Symposium on "Recent Advances in the Chemistry of β -Lactam Antibiotics" held in Cambridge in June 1976, reflected most of these lines of research and so provided a timely review of this rapidly unfolding topic. By the same token, this volume should provide some useful signposts to future developments.

Clothbound 314pp 8½" × 5½" £14.50 (C.S. Members £11.00)



SPECIAL PUBLICATION No. 29

Herbicides and Fungicides Factors affecting their activity

Edited by N. R. McFARLANE, *Shell Research Ltd.*

A wider understanding of the factors affecting the biological activity of herbicides and fungicides provides complex challenges. This volume provides a historical and current perspective of the general areas, including future problems and opportunities, mode of action of some well-known fungicides and their use in practice, criteria affecting efficiency of penetration and translocation of some herbicides. It then goes on to deal with important current experimentation including the influence of adjuvants and humidity, the action of 2,4-dichlorophenoxyacetic acid, inorganic glasses for the slow release of fungicides and herbicides, and spiro lactone fungicides related to benzoquinones. The final papers cover theoretical aspects including partition coefficients and systemic activity and the concept of optimal lipophilicity.

Paperbound 156pp 8½" × 5½" £7.50 (C.S. Members £5.50)

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