
J. E. SAXTON (Senior Reporter)

The Chemical Society, London, 1974, pp. 443, £14.00

Volume 4 of the series of Specialist Periodical Reports on alkaloids covers the progress in research in the field of alkaloid chemistry during the period July 1972 to June 1973. That this volume is some 100 pages longer than its predecessors reflects, not so much the undoubted increasing activity in the alkaloid field, but the very worth-while inclusion of a substantial review by Dr. M. Shamma of the chemistry, biosynthesis and pharmacology of the aporphine alkaloids. The last major review of this field was published in 1967, and the present reporter has attempted to summarize the most important developments from that date up to Summer 1973. This excellent work includes a list of the structures of all aporphines known at the date of going to press.

The rest of the report follows the pattern adopted in previous years. The bulk of the work is concerned with advances in aspects of the isolation and chemistry of the various groups of alkaloids, and one chapter covers the biosynthesis. Sufficient space has been made available, particularly in the section on biosynthesis, to allow the inclusion of some earlier key references that provide background material to the newly reported results. This has the effect of making the volume more valuable than would have been the case had space limitations demanded merely a catalogue of snippets from the year's survey. In the view of the present reviewer this policy could well be followed in other Specialist Reports of the Chemical Society: the inevitable increase in size and cost of the work could, with advantage, be offset by further division of some of the more bulkier of the Reports.

The present volume is on the whole well written, although some of the structural representations are rather misleading (particularly in the section on piperidine alkaloids in Chapter 2) and unnecessarily complex. However, once again one must congratulate the contributors on their thorough coverage of literature. This series is certainly required reading for those interested in the alkaloid field.

B. V. CHARLWOOD


E. S. STERN, J. F. CAVALLA and D. PRICE-JONES (E. S. STERN, Editor)

Clarendon Press, Oxford University Press, London, 1974, pp. 87, £3.00 (hardback), £1.60 (paperback)

As stated in the foreword by one of the series editors, J. S. E. Holker, the aim of this book is to enable the graduate to understand something of the history and present philosophy of the pharmaceutical and agrochemical industries. To this end, apart from an introductory chapter by E. S. Stern, the book has been divided more or less equally among the other two experts, Cavalla and Price-Jones.

Undoubtedly the book succeeds in its main aims. In Chapters 2–5 on the pharmaceutical industry a clear account is given of a number of drug developments, some of which have been judiciously chosen to illustrate the part played by chance observations on the part of skilled pharmacologists during the progress of scientific programmes designed to be more predictive than they in fact turned out to be. Although a large number of therapeutic agents necessarily receive scant treatment, penicillin antibiotics, sulphonamides, hormone analogues, tranquilizers, anti-depressants and anti-hypertensive agents receive admirable coverage considering the space available.

The question of drug metabolism is only cursorily mentioned, and perhaps the expanding role of the synthetic chemist in the challenging task of tagging potential drugs...
with radioactive and non-radioactive isotopes should have been described in detail. Studies in which labelled drugs are administered to human volunteers generate important information for the synthetic chemist working on problems of bioavailability.

The section on agrochemicals is, again, remarkably clear, considering the amount of information contained in five Chapters. The section on specific biological effects will be particularly interesting to chemists wishing to enter this area. Synthetic programmes are described that have led to successful ways of controlling insect pests, rodents, plant diseases, weeds and plant growth.

There are no references to original research papers, but at the end of the book there is a list of books and pamphlets to guide additional reading. A comprehensive index is provided.

This book will certainly be of interest to biochemists as well as chemists wishing to acquaint themselves with these major industries. Career advisors should also find it valuable.

A. M. WHITE

Publications Received


Chemistry and the Needs of Society: A Symposium held at Imperial College, London, April, 1974, organized by The Industrial Division of The Chemical Society, as part of the Annual Chemical Congress, 1974, Special Publication No. 26, The Chemical Society, London, 1974, pp. 244


Experiments in Biological Chemistry: A Laboratory Manual for Medical Students, D. E. Gray (Editor), Hong Kong University Press, 1971, pp. 157


Glossary of Molecular Biology, A. Evans (Editor), Butterworths, London, 1974, pp. 55

Haemorrhagic and Thrombotic Diseases, I. M. Nilsson (Editor), John Wiley and Sons, Chichester, 1974, pp. 288


Mass Spectrometry in Biochemistry and Medicine, A. Frigerio and N. Castagnoli, Jr. (Editors), North-Holland, Amsterdam, 1974, pp. 384


Monographs in Modern Chemistry, Volume 5: 13C NMR Spectroscopy, Methods and Applications, E. Breit-Maier and W. Voelter (Editors), Verlag Chemie, Weinheim, pp. 303


Molecular Biology, Biochemistry and Biophysics (16): Tissue Specificity and Autoimmunity, S. Shulman (Editor), Chapman and Hall, London, 1974, pp. 196

Vol. 3
Neuropsychopharmacology of Monoamines and their Regulatory Enzymes, Volume 12: Advances in Biochemical Psychopharmacology, E. Usdin (Editor), North-Holland, Amsterdam, 1974, pp. 462
Biochemical Society Special Publication No. 4: Membrane Adenosine Triphosphatases and Transport Processes, J. R. Bronk (Editor), The Biochemical Society, London, 1974, pp. 197
Progress in Nucleic Acid Research and Molecular Biology, Volume 14, W. E. Cohn (Editor), Academic Press, London, 1974, pp. 345
The Structure of Biopolymers, O. Hörer (Editor), Abacus Press, Tunbridge Wells, pp. 294