

Book Reviews*

Annual Reports in Organic Synthesis—1971. By J. McMURRY and R. B. MILLER (University of California). Academic Press, New York and London. 1972. xiv + 347 pp. \$7.50.

This prompt report is the second in a series that, it is to be hoped, will be continuous. The comments on the first volume (*J. Amer. Chem. Soc.*, **94**, 6248 (1972)) apply equally well to this one. The book was put to valuable use on the very day it arrived for review. It has been published with personal purchase in mind, and it merits it.

Atlas of Protein Spectra in the Ultraviolet and Visible Regions. Edited by D. M. KIRSCHENBAUM (State University of New York, Brooklyn). Plenum, New York and London. 1972. xii + 290 pp. \$25.00.

This book consists of graphic representations of the spectra of 540 proteins; in many instances, the spectra in different environments, or of certain derivatives, are shown on the same graph. A reference, the source of the protein, and experimental conditions are also given. The spectra are reproduced from the original publications and thus vary in quality and style (some unfortunately have no intensity scale). The arrangement is alphabetical by name, but an elaborate index, listing animal sources, tissue sources, etc., as well as effects (pH, irradiation, additives, etc.), makes it very convenient to find exactly what is wanted.

The Chemistry of the Aryl Halides. Edited by S. PATAI (The Hebrew University). Wiley-Interscience, New York, N. Y. 1972. xiii + 547 pp. \$33.00.

The ambitious series of valuable books collectively entitled "The Chemistry of Functional Groups" appears to have passed the midpoint on the road to completion with the publication of the present volume. The 13 chapters, contributed by 19 chemists, do not quite cover the subject, for three of the planned chapters "did not materialize." One of these is a serious loss: "Synthetic Uses of Acyl Halides," in which, presumably, the Friedel-Crafts reaction would have been discussed.

The subject is interpreted broadly enough to encompass a chapter on chloroformate esters, and one on thiocarbonyl halides, logically enough, and one on acyl hypohalites, which do not have a carbon-halogen bond. As in previous volumes in the series, the subjects are treated critically and in depth, although not encyclopedically, with many tables and long bibliographies. The high standards are maintained, and this volume will certainly be a very useful addition to the organic chemists' literary tools.

Gas Chromatography Applications 1972. Becker Delft N.V./Packard Instrument Co., Inc., Box 519, Delft, Netherlands. 1972. 164 pp. \$5.00.

The contents of this paper-bound volume consist of a group of 47 applications to specific situations encountered in the laboratories of the publishing firm. These range from "liquid sample injection by microdipper" to "Analysis of local anesthetics in suppositories." In each case, full experimental specifications are given, and the actual chromatograms are reproduced and practical tricks are described. There is a bibliography of 85 references and a subject index. It appears to be of much potential help to the analyst in all manner of problems (even to a constipated chromatograph?).

Optics: A Short Course for Engineers and Scientists. By C. S. WILLIAMS and O. A. BECKLUND (Texas Instruments Inc.). Wiley-Interscience, New York, N. Y. 1972. xiv + 397 pp. \$17.95.

This book is intended for "The college-trained industrial employees trained in chemistry, *inter alia*, who find themselves working on projects that are primarily optics"; such a group obviously includes the substantial numbers of chemists concerned with instrumentation. Although it is entitled "A Short Course..." it

lacks the didactic appurtenances of problems and questions. About one-third of the book is devoted to the fundamental physics of radiation and wave phenomena. Each chapter contains a list of references to both primary and secondary sources.

Relevant Problems for "Chemical Principles." By ARTHUR E. GROSSER and IAN S. BUTLER (McGill University). W. A. Benjamin Inc., New York, N. Y. 1970. xiii + 740 pp. \$4.95. **Relevance in Chemical Science.** Same authors and publisher. 1971. xii + 281 pp. \$3.95.

These two paper-bound volumes are supplementary problem-and-answer books to accompany a text on general introductory chemistry. A prominent feature is that overleaf from each problem is a detailed discussion of the solution. In the presentation of the problem, a multiple-choice format with five possible answers is given, with the wrong choices chosen to correspond to the results of the commoner errors that the student might make; these errors are also discussed on the answer page. Both books are suitable for use with any textbook and are particularly good for self-study, although they were compiled specifically to accompany the textbooks "Chemical Principles" by Dickerson, Gray and Haight, and "Models in Chemical Science" by Hammond, Osteryoung, Crawford, and Gray, respectively. The shorter work is essentially a curtailed version of the first, with emphasis on the less mathematical problems. Although the referent for "relevant" is not explicitly stated, the preface implies that relevance to other sciences, as well as "everyday life," is meant.

Vocabulary Control for Information Retrieval. By F. W. LANCASTER (University of Illinois). Information Resources Press, Washington, D. C. 1972. xiii + 233 pp. \$17.50.

Nearly all chemists today must face the problem created by the almost overwhelming eruption of new information and must cope with the increasingly difficult task of locating a given piece of information from the various indexing and storage systems. This book deals with the subject in its broader perspectives and describes and discusses methods alternative to the type of index used in *Chemical Abstracts*, for example.

Insect Juvenile Hormones: Chemistry and Action. Edited by J. J. MENN (Stauffer Chemical Co., Agricultural Research Center) and M. BEROZA (Entomology Research Division, Agricultural Research Service, USDA). Academic Press, New York, N. Y. 1972. xv + 341 pp. \$11.00.

This book presents the proceedings of the Symposium on the Chemistry and Action of Insect Juvenile Hormones, held in Washington, D. C., in September of 1971. There are 14 chapters, dealing with topics ranging from the molecular basis for the action of JH, the metabolism of JH, and chemical syntheses of JH and its analogs to structure-activity relationships and field trials involving the use of JH mimics for the control of insects.

In the Preface, the editors note that the book is meant to be "one that will brief scientists on current thinking and methodology in the field, as well as provide references to prior work." In this regard, the book is quite successful. The chapters are interesting and current. Two chapters dealing with the molecular basis for JH action, one by C. M. Williams and F. C. Kafatos, the other by J. Ilan, J. Ilan, and N. G. Patel, are particularly stimulating and convey the message that the hormonal control of insect development may prove to be a system well suited for probing the processes by which gene regulation is achieved in higher organisms.

The pace of juvenile hormones research is accelerating, and the scope of the field is broadening. Thus, it is inevitable that this book will be out of date very soon. However, at the present time, this volume provides an excellent status report on the type of work which is being done and reveals some of the directions which future efforts are likely to take.

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* Unsigned book reviews are by the Book Review Editor.