

## REVIEWS

**Amino-Acids, Peptides, and Proteins, Vol. 8. A Specialist Periodical Report.** Edited by R. C. SHEPPARD. The Chemical Society, Burlington House, London W1V OBN, England, 1976. 504 pp. 16 × 24 cm. Price \$56.00. Available from Special Issue Sales, American Chemical Society, 1155 Sixteenth St., N.W., Washington, DC 20036.

This eighth volume of the continuing series on amino acids, peptides, and proteins covers the literature published in 1975. Like the previous volumes, it is of great help to all of us whose interests lie in peptide and protein chemistry.

The areas reviewed are: amino acids, including their synthesis and resolution; structural investigations of peptides and proteins, which covers protein isolation, characterization, chemical modification, sequence methodologies, and X-ray studies; peptide synthesis; peptides with structural features not typical of proteins; and a very welcome chapter on chemical structure and biological activity of hormones and related compounds. Included in the pertinent chapters are tabulations of primary structures published during 1975 as well as lists of syntheses achieved and of useful amino acid derivatives for peptide synthesis.

Overall, this volume maintains the very high standards we have been accustomed to in this series of Specialist Reports.

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**Contemporary Liquid Chromatography.** By R. P. W. SCOTT. Wiley, 605 Third Ave., New York, NY 10016, 1976. 326 pp. 16 × 24 cm. Price \$21.50.

The outstanding feature of this new book on liquid chromatography is the inordinate number of typographical errors. Errors in syntax and awkward terminology also abound. It is apparent that an editorial vacancy occurred during the production of this latest volume in the *Techniques in Chemistry* series. Hopefully this lapse can be avoided in future volumes.

There is definitely a need for a comprehensive book on modern chromatographic (gas as well as liquid) techniques. The present volume, which purports to cover liquid chromatography, falls far short of what is needed, primarily due to errors of omission and emphasis. There is, by intention, no coverage of thin layer chromatography, size exclusion chromatography, or affinity chromatography, thus abrogating coverage of at least 50% of "contemporary liquid chromatography." The author avoids meaningful discussion of applications to prevent the book from becoming dated. Unfortunately, this tactical maneuver leaves little to offer the practicing chromatographer. It would have clearly been better to discuss theoretical developments and instrumentation in the context of practical problem solving. Although a major portion of the book is devoted to theory, the theory presented is not adequately developed from first principles to interest the serious student, nor is it adequately explained to afford benefit to the casual applications-minded reader.

Approximately one-third of the book is devoted to instrumentation, and in these sections Scott is far more successful. The difficulty here is that the material is either out of date or has been adequately covered (at this survey level) in other recent texts. The author often fails to make value judgements about equipment options, but when an opinion is ventured, I find myself in disagreement. The statement that "it has obviously been established that LC/MS will be a common technique in the future" is typical of a number of shortsighted comments which cannot be substantiated.

The chapter devoted to Stationary and Mobile Phases for Liquid Chromatography suffers in the same manner as the rest of the volume. There is nothing new, there are unbelievable errors of omission (ion exchange is "not within the scope of this book"), and important recent

developments have been given short shift (e.g., the application of chemically bonded microparticle stationary phase materials).

As a whole, this book does not do justice to the excellent reputation of its author. Nevertheless, I am pleased to own a copy because there are many good individual sections and it is always useful to get a different perspective. I cannot recommend this volume for the beginner.

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**Colorimetric and Fluorimetric Analysis of Steroids.** By J. BARTOS and M. PESEZ. Academic (London), 24-28 Oval Rd., London, NW1 7DX, England, 1976. vii + 274 pp. 15.5 × 23.5 cm. Price \$21.50.

Analytical methodology for steroids is important since these compounds are usually found at low concentrations not only in dosage forms but also in biological samples. There is an extensive literature regarding spectrophotometric analysis of steroids, while literature involving fluorometric methods is scant and many of the procedures are nonspecific. The authors of this book have successfully compiled a volume detailing many colorimetric and fluorometric procedures for those natural or synthetic steroids of physiological interest.

The methods reported are quantitative rather than qualitative, and only those based on chemical reactions that yield a color or fluorescence in solution are discussed. Many of the procedures were tested in the authors' laboratory and even modified when an improvement could be made. This testing provided a selection procedure for inclusion in the book, where several methods based on the reaction and reagents were found in the literature.

After general chapters on steroid nomenclature, functional group analysis of steroids, and halochromism and halofluorism reactions, there are specific sections dealing with sterols and vitamin D, bile acids, estrogens, gestagens, androgens, corticosteroids, contraceptive progestogens, cardiac glycosides, steroid saponins and sapogenins, and steroid alkaloids. Included in each chapter are general colorimetric and fluorometric procedures for the particular class of steroid. These are usually followed by specific methodology for the more important compounds in that class.

The book is well written and undoubtedly will be useful to pharmaceutical scientists involved in steroid research. It should be purchased for inclusion in a university science library collection. It is not recommended for use as a pharmacy course textbook since it is a compilation of analytical methodology. Whether or not it is included in a school of pharmacy library will depend upon the research interests of the staff since most undergraduates will not benefit from the volume.

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**Progress in Drug Metabolism, Vol. 1.** Edited by J. W. BRIDGES and L. F. CHASSEAUD. Wiley, 605 Third Ave., New York, NY 10016, 1976. 286 pp. 15 × 25 cm.

This first volume of a new review series contains five chapters: Newer Developments in the Mass Spectrometry of Drugs and Metabolites by B. J. Millard, Bioactivation and Cytotoxicity by T. A. Connors, The Role of Epoxides in Bioactivation and Carcinogenesis by R. C. Garner, Clinical Aspects of Microsomal Enzyme Induction by J. O. Hunter and L. F.