# Book reviews

RODD'S CHEMISTRY OF CARBON COMPOUNDS. 2nd edn. Editor: S. Coffey. Vol. 1. Part F: Carbohydrate Chemistry. Pp. xvi + 780 (1967). Elsevier, Amsterdam, London, New York. £14.75.

Not only is this volume a welcome addition to the second edition of Rodd's *Chemistry of Carbon Compounds* but it is a useful acquisition to present-day literature of organic chemistry.

In the period since the publication of the first edition there have been major advances in organic chemistry. The present volume significantly differs from its predecessor in its use of modern physico-chemical techniques and there are sections dealing with the properties of the monosaccharides in terms of crystal structure, infra-red and nuclear magnetic resonance spectroscopy, mass spectrometry, optical rotatory dispersion and molecular disymmetry. The various chromatographic techniques—column, paper, thin-layer, gas-liquid and paper electrophoresis—for the separation, identification and estimation of monosaccharides are finding widespread application in qualitative and quantitative work and these are dealt with most efficiently. The use of radio-active isotopes is not forgotten either. Whilst most work in this field has concerned use of $^{14}C$, the authors correctly refer to the value of deuterium and tritium in the investigation of biochemical processes and in the study of reaction mechanisms of carbohydrates.

Almost all the volume under review is concerned with saccharide chemistry but the short opening chapter describes the penta-, hexa-, and higher polyhydric alcohols. All in all, this work is to be recommended. It is a well printed and well set-out book in which the structural formulae, usually a difficult problem with carbohydrates, are very clearly drawn. C.B.

STRUCTURE AND BONDING. Vol. 7. Editors: P. Hemmerich, C. K. Jørgensen, J. B. Neilands, Sir Ronald S. Nyholm, D. Reinen and R. J. P. Williams. Pp. 154+Ill. (1970). DM. 38.00; $10.50. Vol. 8. Pp. 196 + Ill. (1970) DM. 42. Springer-Verlag, Berlin, Heidelberg, New York.

The Editors see this series as providing a discussion of structure and bonding in complexes, covering both chemical physics and biological chemistry. It is not restricted to organic chemistry and is an excellent medium for what is necessarily a multi-disciplinary field. There is little of direct practical concern to the cosmetic chemist in the present two volumes, but they will be invaluable to the research worker studying the particular subjects under review.

Volume 7 includes work on the spectra of ferric haems and haemoproteins, the absolute configuration of transition metal complexes, the application of nuclear quadrupole resonance spectroscopy to the study of transition metal compounds and a paper in German—Kationenverteilung zweiswetiger 3d-$^n$Ionen in oxidischen Spinell-, Granat- und anderen Strukturen.

Volume 8 studies iron electronic configurations in proteins (studies by Mossbauer spectroscopy), structural studies of haemes and haemoproteins by nuclear magnetic resonance spectroscopy, the clinical nature and reactivity of cytochrome P-450 and cobalt (II) in metalloenzymes.

It is thought that a list of the subject matter in these books will be of value since the papers are so specialized. M. A. COOKE

ORGANIC CHEMISTRY SIMPLIFIED. R. Macy. Pp. × + 486 + Ill. (1970). Chemical Publishing Co., New York. $15.00.

There must be many members of the Society who have not opened a textbook of elementary organic chemistry for many years; it must be nearly 50 years since I personally had occasion to do so. It might well be asked how such a work could be of interest or use to this type of public—a question I asked myself on opening the present volume. The answer is, I think, in the unusual approach to the subject adopted by the present author; so that in many respects this becomes a narrative rather than a collection of formulae and equations. In addition emphasis is on the role of the electron, an aspect of the subject on which my generation is probably rather weak.

The book is divided into four parts dealing respectively with the unique position of the carbon atom, the architecture and classification of carbon compounds and special topics in organic chemistry (e.g., plant and animal life, dyes, giant molecules and isotypes). A short but cryptic introductory paragraph exhorts the reader to take special note of the paragraph in italics on p. **000**! The style is simple and direct, the illustrations are adequate in number and presentation, and the references to industrial applications are apt though few—and do not include cosmetics. The book may be recommended to those who wish to brush up and update their organic chemistry the easy way. Apart from that it is a student's book, and a fairly successful one at that, apparently, since it has reached a third edition in 27 years.

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