

Advances in Enzymology and Related Subjects of Biochemistry

Vol. 23. Edited by F. F. Nord. Pp. v + 557. (New York: Interscience Publishers, Inc.; London: Interscience Publishers, Ltd., 1961.) 15.50 dollars.

THIS volume of *Advances in Enzymology* contains nine articles covering a useful range of biochemical topics, but unfortunately some are of very poor quality.

Three contributions deal with particular enzymes: "Pancreatic Lipase" by Desnuelle, "Collagenases and Elastases" by Mandl and "Cytochromes of Group A and Their Prosthetic Groups" by Lemberg, all of which are very thorough surveys of their subject, the last-mentioned being particularly concerned with the chemistry of the active site. An interesting feature of the articles by Desnuelle and Mandl is the emphasis given to applications of enzymes particularly as analytical tools. This feature of enzymology is further developed in the stimulating paper "Denaturation and Inactivation of Enzyme Proteins" by Okunuki, which describes the use of proteinases for investigating changes in the secondary and tertiary structure of proteins.

There are two excellent articles on enzymes in metabolic systems, "The Metabolism of 2-Carbon Compounds by Micro-organisms" by Kornberg and Elsdon and "Mechanisms of Synthesis of Adenosine Triphosphate" by Racker. The latter is an important review containing a serious attempt to correlate the conflicting findings by different groups on oxidative phosphorylation in mitochondria. The last article in the volume is a short but very topical one on the "Discovery and Chemistry of Mevalonic Acid" by Wagner and Folkers.

Of the two articles not so far mentioned, one deals with the possibility that the configuration of a peptide link may be determined by the side chains of its constituent amino-acid residues. The other attempts to explain periodic steps found in progress curves of enzyme reactions by the assumption that all the enzyme molecules are acting synchronously, this idea being derived by ignoring the statistical concept of thermodynamic equilibrium.

M. J. SELWYN

Introduction to Advanced Inorganic Chemistry

By Dr. Philip John Durrant and Beryl Durrant. Pp. xv + 1,171. (London: Longmans, Green and Co., Ltd., 1962.) 95s. net.

THIS book attempts to provide a comprehensive survey of inorganic chemistry based "on the concepts of theoretical chemistry which have been developed in the last twenty years". Approximately a third of the book deals with the physical aspects of inorganic chemistry such as wave mechanics, spectra and X-ray diffraction, and the remainder to descriptive inorganic chemistry. This type of treatment, in a one-volume book, although more than 1,000 pages in length, almost inevitably falls into the error of presenting a little of a lot of large topics. This fault could have been partially remedied for the student and research worker by including references to original literature. In fact very few references are included, and only at the ends of certain chapters are recommendations for further reading given.

The physical-inorganic section gives a lucid and useful presentation of many modern techniques, but also it has some surprising omissions; for example, in the section on spectra, little is mentioned about the

spectra of transition metals. Also there is no adequate treatment of possible reaction mechanisms in inorganic chemistry. The descriptive section of the book is traditional in its presentation. It gives an adequate description of most of the properties of the elements with, however, one surprising omission. There is no detailed treatment of the complexes of the transition metals. The reason for this is given as lack of room (p. 988). Since so much of the solution chemistry of the transition metals depends on the nature of their complexes, this omission is a definite weakness in the book. There is a tendency in this section to be rather non-critical, and statements like "liquid hydrogen fluoride is a better solvent than water" require some justification. A number of chemical errors, such as in the preparation of sodium paratungstate, appear in the text, although this is probably inevitable in a book of this type.

All in all, this book presents in one volume much useful information, but it cannot be regarded as a 'must' for the inorganic chemist.

D. H. BROWN

The Birds of British Somaliland and the Gulf of Aden

Their Life Histories, Breeding Habits, and Eggs. By Sir Geoffrey Archer and Eva M. Godman. Vol. 3: Pp. lxxviii + 627-1042 + plates 21-27. Vol. 4: Pp. vii + 1043-1570 + plates 28-34. (Edinburgh and London: Oliver and Boyd, Ltd., 1961.) 189s. net the set of two volumes.

THE first two volumes appeared in 1937 and are now out of print; the second half of the work will therefore appeal mainly to the veterans and librarians who are enabled to complete their sets. The volumes are very handsomely produced, although orthographical errors are rather numerous. Twelve of the colour plates are from originals made many years ago by Archibald Thorburn and are of interest in being apparently the only examples of that well-known artist's work in which he depicted exotic birds. Sir Geoffrey Archer was governor of what was then British Somaliland from 1912 until 1922, and later held similar office in Uganda and the Sudan; his field observations, together with his collection of some 3,500 skins and more than 1,000 clutches of eggs, form the basis of the work as a whole. To Miss Godman, bearer of a famous name in ornithology, has fallen the museum side of the study and the task of putting the material into the shape of a systematic text-book.

The authors have naturally been embarrassed by the changes in taxonomic thought between their two dates of publication; this has to be borne in mind in placing the book in the general pattern of present-day literature on the birds of Africa. They also appear to have been handicapped by a plan of treatment, set in the earlier days, that involves giving much space to extralimital information readily available elsewhere; thus there are descriptions of the breeding habits in Europe of species known only as migrants in Somaliland. The main value of the book lies in the first-hand accounts of habits, as observed in an ornithologically very interesting area in which relatively few others have had the opportunity of doing extensive field work. This is true alike of species that are well known in Europe in very different circumstances, and of those that are native to the Horn of Africa.

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