

Marking experiments with insects have been tried in many countries in the past thirty years, but the number of recoveries at any long distance has been negligible. Urquhart has been much more successful. Out of many thousands of butterflies marked, chiefly in the autumn at the beginning of their southward movement, but some also in the spring, his list of recoveries includes 98 in the autumn and 13 in the spring at more than 13 miles from the place of marking. Of these the maximum distance for a spring marking was 600 miles; while for the autumn movement there were 25 recoveries at more than 350 miles, of which 8 were more than 1,000 miles. The most distant recovery was one marked in Ontario on August 18, 1957, and recovered on January 25, 1958, in San Luis Potosi, Mexico, a distance of 1,870 miles in a direct line. For these results alone the book should be in every library.

C. B. WILLIAMS

Solubilities

Inorganic and Metal-Organic Compounds—A Compilation of Solubility Data from the Periodical Literature. By Dr. Atherton Seidell. Vol. 1: A-*Ir*. Fourth edition by Dr. William F. Linke. Pp. iv+1487. (Princeton, N. J.: D. Van Nostrand Company, Inc.; London: D. Van Nostrand Company, Ltd., 1958.) 187s. 6d.

PROBABLY every scientific library contains at least one of the complete editions of this famous series *Solubilities*, first published by Dr. Atherton Seidell in 1907.

A regular revision of a compilation of data of this nature is absolutely imperative if the work is to provide the scientist with the most recent and up-to-date information. Even in the short period of a decade, numerous original investigations on organic and inorganic solution equilibria are published in the multitudinous modern scientific periodicals and journals, and all these require a critical periodical assessment and tabulation.

The volume under review is the first of the new fourth edition, revised and compiled by Dr. W. F. Linke, and is the result of a detailed, critical study of investigations recorded in the chemical abstracts up to the 1956-57 period. The data of various authors on particular substances have been compared and combined; unreliable observations have been omitted, whereas closely agreeing results are plotted and averaged.

As in the well-known earlier editions, the elements are listed alphabetically according to their chemical symbols, and the anions of compounds also fall into a similar alphabetical sequence. A welcome innovation to the present edition is the inclusion of a complete index of substances and compounds which renders the location of specific data a much more facile procedure. The usual author and reference index is extensive and comprehensive.

This new edition is to be published in three volumes. The first volume covers argon to iridium, and volume 2 will complete the inorganic compilation. Volume 3 is to be devoted to the solubilities of organic compounds in various solvents.

The new series comprises a valuable modernized edition of a reference work which has been of the greatest value to chemists for more than fifty years, and, like a good wine, it 'needs no bush'.

D. T. LEWIS

Advances in Clinical Chemistry

Vol. 3. Edited by Harry Sobotka and C. P. Stewart. Pp. xiii+400. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1960.) 12 dollars.

THE third volume of this useful annual, which has now established itself as an essential piece of equipment on the desk of every hospital biochemist and which can be read with profit by general biochemists and clinicians alike, maintains the high standards set by its two predecessors. Particularly valuable is the chapter by Brown on oestrogens, for it not only provides a useful survey of their metabolism and clinical significance but it also gives full experimental details for their estimation in blood and urine in a form which is not readily available elsewhere. Folic acid and vitamin B₁₂ are discussed in twin chapters by Girdwood and Gräsbeck respectively, while the account of kernicterus by Arias includes a useful survey of present-day knowledge of bile pigment metabolism.

The chapter on flocculation tests in relation to liver disease by Reinhold is both exhaustive and critical in its treatment of a commonly employed procedure which is simple to carry out, but which has hitherto been difficult to explain in other than empirical terms. In striking contrast is the account of infra-red absorption analysis by Schwarz. While infra-red spectra are invaluable to the organic chemist in the identification of unknown compounds they have only recently come to be applied to the examination of tissue constituents and they are discussed here with particular reference to lipid analysis. Nevertheless, it is likely to be a long time before an infra-red spectrometer becomes a standard piece of equipment in every clinical chemistry laboratory, in Great Britain at least.

J. N. DAVIDSON

Advances in Biological and Medical Physics

Vol. 7. Edited by Cornelius A. Tobias and John H. Lawrence. Assisted by Thomas L. Hayes. Pp. ix+362. (New York: Academic Press, Inc.; London: Academic Press, Inc. (London), Ltd., 1960.) 10 dollars.

THIS volume presents a further selection of seven topics from the wide field covered by this series.

First there is an excellent chapter by G. S. Stent and C. R. Fuerst on the genetic and physiological effects of the decay of phosphorus-32 following incorporation into bacterial viruses and bacteria. These effects are primarily the result either of the transmutation of phosphorus-32 to sulphur-32 or of the recoil of the nucleus and not to the ionization produced by the β -particle emission. There is a useful chapter on radiation effects on the nervous system by N. N. Livshits, covering much of the Russian literature in this field. Another chapter, by L. W. Law, on radiation carcinogenesis provides a wealth of data, but the discussion is confined almost exclusively to the mutational hypothesis for the induction of neoplasia. Confusion over dosage units leads to the incorrect statement that Wistar rats are 200 times more sensitive to phosphorus-32 than are *CF*₁ mice to strontium-90 for bone tumour induction. A chapter by D. Carlstrom deals with the technique of micro X-ray diffraction in biology, but only a few applications of the technique are described. There is a clear introduction