

periodical, and are abstracted individually in "Chemical Abstracts." Each synthesis has been checked at an independent laboratory to establish the reliability and competence of the instructions. Miss Janet D. Scott, of the G. & C. Merriam Company, has continued as associate editor, responsible for problems of nomenclature and indexing. Besides the Table of Contents of Volume V, arranged by periodic table groups, there are also fifty pages of indices. The Subject Index and Formula Index are cumulative back through Volume I. Because of changes in practice since the appearance of Volume I, extra entries or cross references are made to names that have changed.

Following the practice initiated in Volume II, there are incorporated general summaries of specific fields. Volume V includes the following general discussions: The preparation of sodium dispersions and their use to prepare sodium hydride; use of sodium amalgam to isolate samarium, europium and ytterbium materials from mixed rare earths; preparation of anhydrous lanthanon nitrates; preparation of organo-silazane compounds, that is, compounds that contain silicon-nitrogen bonds; preparation of organo-germanium compounds; preparation of metal derivatives of 1,3-diketones (58 references); preparation of anhydrous metal chlorides, with twenty-three cross references to other sections of Volume V; preparation of chlorine(I) compounds; and preparation of polyhalogen complex salts (18 references).

There may exist superior methods, less complicated methods or methods that are commercially more feasible to accomplish the preparations cited in "Inorganic Syntheses." But for the laboratory preparations of both the simple and the complicated inorganic compounds described, these are *reliable* methods and are promulgated only as such. If better ways to make these substances are found, the editor of "Inorganic Syntheses" will welcome detailed instructions concerning them for future volumes. Volume VI is now in preparation under the editorship of Eugene G. Rochow of Harvard University.

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Dynamic Aspects of Biochemistry. Third Edition. By ERNEST BALDWIN, B. A., Ph.D., Professor of Biochemistry at University College in the University of London, formerly Fellow of St. John's College, Cambridge. Cambridge University Press, 32 East 57th Street, New York 22, N. Y. 1957. xx + 526 pp. 14.5 × 21.5 cm. Price, \$5.50.

When the first edition of the "Dynamic Aspects of Biochemistry" appeared in 1947, it was clearly the best elementary textbook dealing with the chemical basis of metabolic activity of living organisms. In the first place, it emphasized, as few biochemistry texts were doing at the time, the functions of the various molecular constituents of cells in the full complexity of their interactions, and succeeded to a very large extent in indicating the spatio-temporal order of metabolic processes. The book achieved this result through a liberal and judicious discussion of the experimental methods that have been employed in studies of metabolism, of the validity of such methods, and of the interpretation of actual experimental findings. The student reading this book thus gained an appreciation of how progress is made in the understanding of a problem (and problems as complex as those found in biological phenomena), as well as the nature of the biological problems that are amenable to analysis at the chemical level. Professor Baldwin's style was thoroughly engaging, furthermore, and he provided a lucid and fascinating account that was always a pleasure to read.

"Dynamic Aspects" has gone through several reprintings, translations, and appeared in its third, revised edition last year. In doing so, it has lost few of the qualities that recommended it so highly at the outset of its career. Some major re-writing is in evidence, not only for the sake of including results of recent work on cell particulates, on photosynthesis, and on lipid metabolism, for example, but also to improve the exposition of certain portions. The author presupposes little preparation in physical chemistry on the part of the reader. For this reason, his account of the thermodynamic and energetic aspects of biocatalysis has been sketchy, and perhaps too superficial, in the past.

The present version strikes a good balance between the requirements for a sound theoretical treatment and the limitations set by the presumed level of the readers' academic preparation.

It would perhaps be cavilling, with a book as good as this one, to suggest that, in the attempt to reach greater depth in certain areas and to maintain contact with the advancing frontiers of biochemistry, Professor Baldwin has neglected certain fundamental problems of broad biological significance. There is no discussion of the *origin* of protein specificity, for example, although there is a wealth of experimental material upon which to draw in the fields of induced enzyme synthesis and antibody formation. Although the precise nature of the relation between gene structure and biochemical activity is far from understood, the matter is so important and there are such interesting and suggestive findings concerning this relation, that one cannot help being disappointed by its shallow treatment in this book. Probably because of the rapidity of discoveries in the field, the book is already outdated in its discussion of the structure and synthesis of nucleic acids. Finally, because this book is of such interest and value to the practicing biochemist, one would really like to have better references to the literature. Many experiments are cited without any reference to author or journal, which is dismaying for the person who would like to track down a lead and learn more about it.

All in all, "Dynamic Aspects of Biochemistry" remains an excellent buy and a useful text and reference for student and practitioner alike.

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BOOKS RECEIVED

May 10, 1958—June 10, 1958

- FRED BASOLO AND RALPH G. PEARSON. "Mechanisms of Inorganic Reactions. A Study of Metal Complexes in Solution." John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1958. 426 pp. \$11.75.
- FRANK A. BOVEY. "The Effects of Ionizing Radiation on Natural and Synthetic High Polymers." Interscience Publishers, Inc., 250 Fifth Avenue, New York 1, N. Y. 1958. 287 pp. \$8.00.
- MALCOLM DIXON AND EDWIN C. WEBB. "Enzymes." Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1958. 782 pp. \$16.00.
- HENRY E. DUCKWORTH. "Mass Spectroscopy." Cambridge University Press, 32 East 57th Street, New York 22, N. Y. 1958. 206 pp. \$6.50.
- JESSE P. GREENSTEIN AND ALEXANDER HADDOW, Edited by. "Advances in Cancer Research." Volume V. Academic Press, Inc., 111 Fifth Avenue, New York 3, N. Y. 1958. 463 pp. \$10.80.
- GUSTAV J. MARTIN. "Clinical Enzymology." Little, Brown and Company, Boston 6, Massachusetts. 1958. 241 pp. \$6.00.
- M. G. MELLON. "Chemical Publications. Their Nature and Use." Third Edition. McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York 36, N. Y. 327 pp. \$7.00.
- LÉON VELLUZ, Editor. "Cahiers de Synthèse Organique Méthodes et Tableaux D'Application." Volume IV. By JEAN MATHIEU AND ANDRÉ ALLAIS. Masson et Cie., 120 Boulevard Saint-Germain, Paris VI^e, France. 1958. 272 pp. Broché: 5.000 frs.; Cartonne toilé: 5.500 frs.