Book Reviews

Quantitative Chemical Analysis. 10th ed. Leicester F. Hamilton and Stephen G. Simpson. New York: Macmillan, 1952. 529 pp. Illus. $4.50.

This book is the tenth edition of one first published in 1897 by H. P. Talbot. Any such work must have real merit to survive for half a century.

The chief question is what changes have been made in the latest edition. Although numerous, in general these represent efforts to clarify the presentation and to modernize the material. Thus, theory is expanded and some newer methods are substituted for older ones. For individual methods the general form is the statement of principles and theory, the detailed operating directions, and the representative numerical problems.

The over-all emphasis remains on titrimetric and gravimetric methods, in that order. Altogether, this treatment seems conservative and sound.

Some of the definitions used do not agree with the recent recommendations of the nomenclature committee of the Division of Analytical Chemistry of the American Chemical Society; e.g., the first sentence on page 285 "ain't necessarily so," for the sample may not be weighed or dissolved, or the desired constituent separated from solution. The outline on page 393 is not sufficiently inclusive to cover a number of different kinds of methods.

The reviewer retains the generally high opinion of this book which he has held for recent editions.

Quantitative Chemical Analysis: An Introduction to the Science and Practice of Chemical Measurement. Charles W. Foulk, Harvey V. Moyer, and William M. MacNevin. New York–London: McGraw-Hill, 1952. 484 pp. $5.00.

Although this book is printed as a first edition, it brings back to the reviewer many recollections of the senior author's much earlier work. As an example, separate discussion of theory and practice is retained in the new work. Incidentally, the reviewer now accepts the soundness of this viewpoint. He cannot agree, however, with the general implications of the proposed classification of analytical methods. Nor does he believe that the process of precipitation has any essential connection with gravimetry. The former is a means of separation, the latter a kind of measurement.

The theoretical part (280 pp.) deals primarily with gravimetry (including precipitation) and titrimetry. Included also are short chapters on errors, oxidation-reduction potentials, potentiometric determination of pH, electrometric titrations, electrodeposition, and colorimetric analysis.

Most of the laboratory exercises are gravimetric or titrimetric, thus following the general pattern still popular in many institutions. The number and variety seem adequate, although admittedly no two instructors would agree on what to include in such a list. Useful items are included in the appendix.

In one form or another, much of the material in this book has been used with large classes for two to four decades. It is thus a work of proved value. In the new, expanded form, it should interest many teachers.

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Allgemeine Physiologie. Albrecht Bethe. West Berlin: Springer-Verlag, 1952. 294 pp. Illus. DM 29.70.

The author of this book is the dean of the German physiologists. In his ripe old age—he celebrated his 80th birthday a few months ago—he presents a small but rich general physiology. The subject matter of this area of the biological sciences is less well defined than that of other parts of physiology. The influence of Verworn, who tried to base a general physiology largely on the study of unicellular organisms, can be traced in Bethe's book. Other aspects, however, such as the physicochemical organization of the protoplasms, are duly emphasized—particularly permeability, vital staining, and ion effects. The relation of stimulus to excitation, bioelectricity, the general physiology of movements, the principles of nervous conduction, and of the action of hormones are also dealt with.

This is one of those rare books which the expert enjoys and which ought to be profitable for the beginner. It is well written, not overloaded with facts, and is rich in ideas. It would be highly desirable if medical students and students of mammalian physiology would first become acquainted with general physiology as discussed here before they approach the intricacies of human physiology.

Printing and binding of the book are excellent.

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Scientific Book Register

Filter Design Data for Communication Engineers. J. H. Mole. New York: Wiley, 1952. 252 pp. Illus. $7.50.

Iodine Content of Foods. Annotated bibliography 1825–1951 with review and tables. London: Chilean Iodine Educational Bureau, 1952. (Distributed by Lange, Maxwell & Springer, London.) 183 pp. 21s.

Linear Algebra and Projective Geometry. Vol. II of Pure and Applied Mathematics: A Series of Monographs and Textbooks; Paul A. Smith and Samuel Eilenberg, Eds. Reinhold Baer. New York: Academic Press, 1952. 318 pp. Illus. $6.50.

Theory of Electric Polarisation. C. J. F. Böttcher. Amsterdam–Houston: Elsevier, 1952. 492 pp. Illus. $10.00.

Respiration in Plants. 3rd ed. Walter Stiles and William Leach. London: Methuen; New York: Wiley, 1952. 172 pp. Illus. $2.25.

Soluble Silicates: Their Properties and Uses. Vol. 1, ***Chemistry.*** James G. Vail, with assistance of John H. Wills. New York: Reinhold, 1952. 357 pp. Illus. $9.00.

Mechanics: Lectures on Theoretical Physics, Vol. I. Arnold Sommerfeld; trans. from 4th German ed. by Martin O. Stern. New York: Academic Press, 1952. 289 pp. Illus. $6.50.

Encyclopédie Biogéographique et Écologique. Vol. VIII, ***Faune des Nids et des Terriers en Basse Côte d'Ivoire.*** C. Delamare Debouteville and R. Paulian. Paris: Paul Lechevalier, 1952. 116 pp. 1350 fr.

Textbook of Engineering Materials. Melvin Nord. New York: Wiley; London: Chapman & Hall, 1952. 518 pp. Illus. $6.50.

A General Zoology of the Invertebrates. 3rd ed. G. S. Carter. London: Sidgwick & Jackson; New York: Macmillan, 1948–52. 509 pp. Illus. $5.75.

The Methods of Statistics. 4th ed. L. H. C. Tippett. New York: Wiley; London: Williams & Norgate, 1952. 395 pp. Illus. $6.00.

Field Geology. 5th ed. Frederic H. Lahee. New York–London: McGraw-Hill, 1952. 883 pp. Illus. $8.50.

Associated Measurements. M. H. Quenouille. New York: Academic Press; London: Butterworths, 1952. 242 pp. Illus. $5.80.

Association Affairs

Constitution and Bylaws

Howard A. Meyerhoff, *Administrative Secretary*

At its first session at St. Louis on Dec. 27, 1952, the AAAS Council passed the revised Constitution and new Bylaws without a dissenting vote. Although both documents were published in SCIENCE (**116**, 575 [1952]), the Constitution stipulates that they be reprinted in both Association journals and also that they become effective one month from the date on which Council action was taken—Jan. 27, 1953. Hereafter, and until amended, the work of the Association and its officers will be governed by the Constitution and Bylaws as printed below:

Constitution

Article I

Section 1. The American Association for the Advancement of Science was incorporated by an act of the General Court of the Commonwealth of Massachusetts in 1874. The Association is a nonprofit scientific and educational body.

Section 2. The objects of the American Association for the Advancement of Science are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Article II

Section 1. The membership of the Association shall consist of Members, Fellows, and Associates. Individuals in any of these three groups may become life members, emeritus members, and sustaining members in accordance with the provisions of Section 5 of this Article and with such relevant rules as the Board of Directors shall have prescribed.

Section 2. Members. Any person, institution, or organization may be admitted to the grade of Member. Each Member shall have such rights and privileges and shall pay such annual dues and fees as the Council shall have prescribed.

Section 3. Fellows. Any person who shall have made a meritorious contribution to science may become a Fellow of the Association under such procedures as the Board of Directors shall have prescribed.

Section 4. Associates. Any person who shall have a record of leadership in any field related to science and who wishes to cooperate in the advancement of science may become an Associate of the Association under such procedures as the Board of Directors shall have prescribed.

Section 5. (*a*) *Life Members.* Any person making the Association a life-membership contribution of such amount as the Board of Directors shall have prescribed may be admitted to life membership. Each Life Member shall be exempt from the payment of annual dues and shall have all the privileges of an annual member throughout life.

(*b*) *Emeritus Members.* Any individual annual member may be admitted to emeritus membership under such conditions as the Board of Directors shall have prescribed. Each Emeritus Member shall be exempt from the payment of annual dues and shall have all the privileges of an annual member throughout life.

(*c*) *Sustaining Members.* Any person making to the Trust Funds of the Association a sustaining membership contribution of such amount as the Board of Directors shall have prescribed shall be the founder of a Sustaining Membership, which shall bear his name and shall be maintained in perpetuity as a trust. Each incumbent of a sustaining membership shall have all the privileges of a life member. The first incumbent of a sustaining membership may be either the founder himself or another person named by him, as he may choose. On the death or resignation of an incumbent, the Board of Directors shall name another person to hold the membership throughout life.

Article III

Section 1. The officers of the Association shall be (*a*) general officers elected from among the Fellows by ballot of the Council, and (*b*) administrative officers elected by the Board of Directors as prescribed in Section 3 of this Article.

Section 2. General Officers. The general officers of the Association shall be a president-elect, a president, a retiring president, and a vice president for each section. The term of office of the president-elect and of the vice presidents shall begin on the January 15 following their