
NEW BOOKS

Fluorochemistry. By JACK DE MENT, Research Chemist; Associate Editor, *Mineralogist Magazine*; Head, Fluorescence Laboratories; Fellow, The Chemical Society of London. Chemical Publishing Co., Inc., 26 Court St., Brooklyn 2, New York, 1945. xv + 796 pp. Illustrated. 15.5 × 23.5 cm. Price, \$14.50.

This book is not about the chemistry of fluorine compounds, as its title would imply. The greater part of the book is given to a description of the fluorescence from a diversity of products—organic compounds, dyestuffs, inorganic crystalline phosphors, glasses and minerals. Certain tabulations here might conceivably be useful. The final third discusses mainly the emission of ultraviolet radiations and their biological effects.

The bibliography on luminescence, though incomplete, is extensive. The author has been industrious in collecting data but has treated a great part of it in an incompetent manner. He has failed to mention several well known investigators abroad who have made important contributions. Furthermore, not all of the significant papers are covered of those whom he does mention. In the choice of topics he has gone far afield, even discussing extensively such a barren one as mitogenetic radiation. The descriptions are frequently awkward. The information is presented in a completely uncritical manner, as though under the handicaps of inexperience and lack of fundamental knowledge. The result is that the reader is often apt to be confused or misled, even on matters of fact.

The ninety pages on the "physical aspect of luminescence" are especially unsatisfactory. They discuss indeed several of the basic contributions to the theory of fluorescence, but the presentation gives an inadequate interpretation of their significance. Particularly regrettable are the author's assertions, referred to throughout the book, of so-called first and third laws of fluorescence, to which he presumptuously attaches his own name as the discoverer, despite the fact that both of them have long been well established generalizations.

The reviewer believes that those desiring an introduction to the subject of luminescence would be better satisfied with the books by Riehl, Pringsheim or Hirschlaff. The reviewer cannot recommend the present book as an authoritative text on any of the diversity of subjects discussed in it.

GORTON R. FONDA

Organic Syntheses. Volume 25. WERNER E. BACHMANN, Editor-in-Chief, HOMER ADKINS, C. F. H. ALLEN, ARTHUR C. COPE, N. L. DRAKE, C. S. HAMILTON, R. L. SHRINER, LEE IRVIN SMITH, H. R. SNYDER and E. C. HORNING, Secretary to the Board, University of Michigan. John Wiley and Sons, Inc., 440 Fourth Avenue, New York, N. Y., 1945. 120 pp. 15 × 23.5 cm. Price, \$2.00.

The Editorial Board announces the publication of this Twenty-Fifth Volume of "Organic Syntheses." Forty-eight contributors, other than members of the board, played a part in its construction and cooperated in presenting directions for preparing thirty-five specific organic compounds of various types. Each preparation has been checked by a member of the Editorial Board with some collaborator. The volume also includes a cumulative index comprising materials for Volumes 20 through 25 of the series.

This series continues its invaluable service of developing a good technique in organic synthesis. The preparations have been well selected, and the discussions introduced and the directions of operation are clear and described without confusion to the worker. Valuable literature

references are introduced under each preparation. In other words, the preparations serve as a real contribution to the field of organic technique.

TREAT B. JOHNSON

Science and Scientists in the Netherlands Indies.

Edited by PIETER HONIG, Ph.D., Member of the Board for the Netherlands Indies, Surinam and Curaçao; Vice-Chairman, Netherlands Council, Institute of Pacific Relations; President, Intern. Society of Sugar Cane Technologists; Director, Rubber Research Institute, Buitenzorg; late Director of the Experiment Station of the Java Sugar Industry, Pasoeroean; Associate Editor, "Natuurwetenschappelijk Tijdschrift voor Ned. Indië," etc. and FRANS VERDOORN, Ph.D., Botanical Adviser to the Board for the Neth. Indies, Surinam and Curaçao; Managing Editor, "Chronica Botanica," "A New Series of Plant Science Books," and "Annales Cryptogamici et Phytopathologici"; Bibliographer, Arnold Arboretum of Harvard University; Hon. Secretary, Bot. Section, Intern. Union of Biological Sciences; Associate Editor, "Bryologist," "Farlowia," "Natuurwetenschappelijk Tijdschrift voor Nederlandsch Indië"; etc. Board for the Netherlands Indies, (G. E. Stechert and Co., New York, N. Y.) Surinam and Curaçao, 10 Rockefeller Plaza, New York, N. Y., 1945. 491 pp. 134 figs. 18 × 26.5 cm. Price, \$4.00.

This volume is certainly a timely one. It is a Government publication issued by the Board for the Netherlands Indies, Surinam and Curaçao, offering an extremely interesting collection of articles dealing with the progress of science in those colonies.

In the hundred or more articles which this large volume contains there are numerous original articles written especially for it, reprints of similar articles previously published elsewhere but now available for the first time in English, a number of most interesting accounts by distinguished naturalists of their travels in the Netherlands Indies in the past, often affording delightful glimpses, scientific and otherwise, of these tropical islands; and finally, a number of shorter articles, notes, biographical sketches, etc., of current interest in view of the present preoccupation of our country with the affairs of this part of the world.

The point of view of the articles is on the whole historical, but it is evident that an effort has been made to bring them up to date so that they constitute undoubtedly the most authoritative and modern presentation of the various subjects considered. These subjects are chiefly concerned with the natural rather than the exact sciences, but the chemist will find interesting and authoritative articles, for instance, on the history of cinchona and its cultivation, on phytochemical research and on the beriberi investigations in the Dutch East Indies.

The volume is a frank attempt by the Netherlands Government to publicize what Malaysia owes to the science and culture which their regime has fostered. Under this heading Editors Pieter Honig and Franz Verdoorn—both now in this country—in their Foreword say:

"The natural sciences are, without doubt, essential to the cultural and material development of a country. It should be recognized that the scientific work referred to above and in the following pages is based for the greater part on the methods and results of 'western science.' This kind of work and research may often seem alien to the East, and to some it may seem somewhat arbitrarily transplanted to oriental surroundings,

but nevertheless it has been of great benefit to the people of the Malaysian islands.

"At the present time, when the right of peoples to self-government is being so much discussed, we may be permitted to ask whether scientific studies should be pursued in the same ways as in the past—in a part of the world where nature and custom do not inevitably impel the rational recognition and application of facts established by the pure and applied sciences. To the implied question—namely, whether or not the occidental has the right and duty to continue his work as in the past—this book may offer a partial reply.

"Only modern research can answer today's demand for a higher level of material well-being for 'freedom from want,' that now basic governmental principle in every county where living standards are diverse. Only modern research seems able to help eradicate the poverty and privation among large groups of the population in many countries—a poverty and privation which would seem fundamentally unnecessary in this twentieth century. Science and its exponents will doubtless continue to have a great mission in the Far East."

Irrespective of any such justification, it certainly can be said that this volume affords a wealth of interesting information, presented in a convincing and attractive form, about a part of the world which merits our closest scrutiny.

ARTHUR B. LAMB

Manometric Techniques and Related Methods for the Study of Tissue Metabolism. By W. W. UMBREIT, R. H. BURRIS and J. F. STAUFFER, University of Wisconsin. Burgess Publishing Co., 426 South Sixth Street, Minneapolis, Minnesota, 1945. iii + 198 pp. 43 figs. 21 × 28 cm. Price, \$3.50.

This volume is intended as a laboratory manual for biochemists, and contains descriptions of a wide diversity of manometric techniques, the Thunberg methodology, the determination of oxidation-reduction potentials, the use of the dropping mercury electrode, and, best of all, an excellent compilation of the methods for preparation and quantitative estimation of a large number of substances and enzyme systems which play a role in metabolic processes of all kinds.

The treatment of the various topics, by twelve contributors, is somewhat uneven. In general, the theoretical basis is outlined first, and followed by a detailed discussion of the practical aspects. Here the personal experience of the contributor is the factor which determines what particulars are stressed; occasionally the extent of this experience appears rather limited.

Perhaps the method of reproduction by photo-offset, while permitting the marketing at so low a price, is partly responsible for some minor deficiencies. In a number of places the text is rather clumsy, and could have been materially improved by careful editing. Here and there dis-

turbing but obvious errors have been overlooked, e.g., the omission of the term α in the formula $(P - R)/P_0 \times \alpha$ (p. 3); the misprint (CO₂) for (CO) in equation (4), p. 21; and the notation V_g instead of V'_g on p. 57. The emphasis in the literature references on contributions from workers at the University of Wisconsin, while understandable, is sometimes misleading; it would, for example, appear as if Manning, *et al.*, in 1938, and not Warburg, some fifteen years earlier, had hit upon the idea of using single-celled algae for studies on photosynthesis. In the treatment of oxidation-reduction potentials one looks in vain for a reference to the important theoretical and methodological contribution of Kluwyver and Hoogerheide (*Enzymologia*, 1, 1936).

But the material has been collected with such obvious enthusiasm for the cause of biochemistry in its broadest aspects, and the desire to cover all important phases of this field is so very evident and successful, that it is easy to excuse and overlook such defects. The book should prove valuable and extremely useful to any one working on biochemical problems in almost any branch of this science.

C. B. VAN NIEL

BOOKS RECEIVED

December 10, 1945–January 10, 1946

E. FRANKLAND ARMSTRONG and L. MACKENZIE MIALL. "Raw Materials from the Sea." Constructive Publications, Ltd., Leicester, England. 164 pp. 15/- net.

PIETER HONIG and FRANS VERDOORN, Editors. "Science and Scientists in the Netherlands Indies." Board for the Netherlands Indies, Surinam and Curaçao, 10 Rockefeller Plaza, New York, N. Y. (G. E. Stechert and Co., New York, N. Y.) 491 pp. \$4.00.

INGVAR JULLANDER. "Studies on Nitrocellulose, Including the Construction of an Osmotic Balance." G. E. Stechert and Co., 31 East 10th Street, New York, N. Y. (Physical-Chemical Institution, Upsala University, Upsala, Sweden.) 142 pp. 4:50 Swedish crowns.

W. H. KEESOM. "Helium." Elsevier Publishing Company, Inc., Amsterdam, Holland. 494 pp.

CONRAD WEYGAND. "Organic Preparations." Interscience Publishers, Inc., New York, N. Y. 534 pp. \$6.00.

"Abridged Scientific Publications from the Kodak Research Laboratories." Volume XXVI, 1944. Eastman Kodak Company, Rochester, New York. 292 pp.

"Immunity Bulletin." Vol. I, No. 1., April, 1945. Immunity Scientific Association, Bengal Immunity Research Laboratory, Baranagore, Calcutta. 73 pp.