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 BOOK REVIEWS
 

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**The Measurement of Radio Isotopes.** By DENIS TAYLOR, M.Sc., Ph.D., M.I.E.E., F.Inst.P., Head of Electronics Division, Atomic Energy Research Establishment, Harwell. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 1951. viii + 118 pp. 11 × 17 cm. Price, \$1.50.

Measurement of radioisotopes encompasses a myriad of facets and in trying to cover the most important of these in one-hundred eighteen small size pages the author was faced with a monumental task. The resulting monograph gives a good discussion of many of the phases of measurement of the more important radioisotopes (beta and gamma emitters) produced in a nuclear reactor.

The first half of the book discusses the fundamentals of radioactive decay, measuring apparatus, counting systems and statistics. Problems of geometry, absorption and other correction factors occupy the next quarter of the book while the remainder is devoted to a short summary of proportional and scintillation counting systems and a discussion of health hazards and monitoring. Little or no mention, however, is made of detection of such modes of decay as orbital electron capture, positron emission, isomeric transition, alpha emission, etc. Nor is any treatment given the problem of measuring one isotope in the presence of another or to the problem of the parent-daughter relationship occurring in such fission product tracers as Sr<sup>90</sup>-Y<sup>90</sup>, and Zr<sup>95</sup>-Cb<sup>95</sup>.

Many readers may feel the book is too general. Few specific examples of experimental set-ups and data are given to relate the formulations of the text to particular laboratory experiments. Unfortunately in its brevity the book omits many references to original literature which would help the reader amplify certain subjects of particular interest to him. While the electronic and mechanical aspects of the measurements are given good treatment, little attention is given to the theory and mechanism of the measuring processes.

The book will serve as a good introduction for the chemist who has little idea as to the possibilities and problems of the measurement of the more common radioisotopes with which he wants to work. Parts of the book may also serve as review information for the experimenter in the nuclear field. Its main limitation seems to be that it is too condensed to make a good reference book on the subject and yet on the other hand it is somewhat specialized for the reader with only a cursory interest in the field of radioactivity or tracer reactions.

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**Advances in Carbohydrate Chemistry.** Volume 6. By CLAUDE S. HUDSON, National Institutes of Health, Bethesda, Maryland, and SIDNEY M. CANTOR, American Sugar Refining Company, Philadelphia, Pennsylvania (Editors). Academic Press, Inc., 125 East 23rd Street, New York 10, N. Y. 1951. xi + 442 pp. 16 × 23.5 cm. Price, \$8.50.

The editors of *Advances in Carbohydrate Chemistry* have striven to have the important developments in carbohydrate chemistry presented in a manner such that specialists in this area can have ready access to critical surveys of research papers which are scattered in the literature. An alternate title to this book, which would appropriately reflect the spirit and content as well as the personal touch of the contributors, might be *Seminars in Carbohydrate Chemistry*.

The following ten subjects are discussed: The Methyl Ethers of D-Galactose; The Synthesis of Oligosaccharides; The Formation of Furan Compounds from Hexoses; Cuprammonium-Glycoside Complexes; The Chemistry of Ribose; the 2-(Aldo-polyhydroxyalkyl)-benzimidazoles; Trends in the Development of Granular Adsorbents for

Sugar Refining; Aconitic Acid, a By-product in the Manufacture of Sugar; Friedel-Crafts and Grignard Processes in the Carbohydrate Series; The Nitromethane and 2-Nitroethanol Syntheses. In addition, there is an Obituary and photograph of Walter Norman Haworth; a Cumulative Subject Index for Volumes 1-5, and a short page of errata to previous volumes. The brevity of this last section is significant.

It has been the desire of the editors to merit the attention and the sustained interest of research workers in other fields, industrial chemists and teachers, and this objective has been eminently met. The book can be warmly recommended also to students of advanced organic chemistry as well as to ambitious undergraduates who desire to put some flesh on the bare bones of carbohydrate chemistry as it is usually presented in their elementary texts. For the potential Ph.D. candidate who is seeking a dissertation problem in carbohydrate chemistry, this volume of *Advances* suggests numerous tempting vistas.

Cornelis Adriaan Lobry van Troostenburg de Bruyn's family name is Lobry. The de Bruyn part merely indicates the branch of the family. Similarly, Willem Alberda van Ekenstein's family name is Alberda, and he should be listed in the Author Index under Alberda and not under Ekenstein.

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LOUIS SATTLER

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 BOOKS RECEIVED
 

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May 10, 1952-June 10, 1952

ERNST BLEULER AND GEORGE J. GOLDSMITH. "Experimental Nuclonics." Rinehart and Company, Inc., 232 Madison Ave., New York 16, N. Y. 1952. 393 pp. \$6.50.

COMMITTEE ON NUCLEAR SCIENCE, NATIONAL RESEARCH COUNCIL. "Annual Review of Nuclear Science." Volume 1. Annual Reviews, Inc., Stanford, California. 1952. 645 pp. \$6.00.

C. A. COULSON. "Valence." Oxford University Press, 114 Fifth Avenue, New York 11, N. Y. 1952. 338 pp. \$5.00.

WILLIAM D. HARKINS. "The Physical Chemistry of Surface Films." Reinhold Publishing Corporation, 330 West 42nd Street, New York 36, N. Y. 1952. 413 pp. \$10.00.

WALTER OTTING. "Der Raman-Effekt und Seine Analytische Anwendung." (Anleitungen für die chemische Laboratoriumspraxis, Band V.) Springer-Verlag, Reichpietschufer 20, Berlin W 35, Germany. 1952. 161 pp. DM 12.60.

FREDERICK D. ROSSINI, DONALD D. WAGMAN, WILLIAM H. EVANS, SAMUEL LEVINE, AND IRVING JAFFE. "Selected Values of Chemical Thermodynamic Properties." Circular of the National Bureau of Standards 500. United States Government Printing Office, Washington 25, D. C. 1952. 1268 pp. \$7.25.

ATHERTON SEIDELL AND WILLIAM F. LINKE. "Solubilities of Inorganic and Organic Compounds." A Compilation of Solubility Data from the Periodical Literature. Supplement to the Third Edition. D. Van Nostrand Company, Inc., 250 Fourth Avenue, New York, N. Y. 1952. 1254 pp. \$12.50.

DONALD STATLER VILLARS. "Statistical Design and Analysis of Experiments for Development Research." Wm. C. Brown Company, 915 Main Street, Dubuque, Iowa. 1951. 455 pp. \$6.50.