
NEW BOOKS

Physica. Prof. dr. A. D. FOKKER, Secretary to the Board of Editors. Martinus Nijhoff, Publisher, The Hague, Holland. Ten issues per annum, about 960 pp. 16 × 24.5 cm. Price, 25 guilders per annum.

The periodical entitled "Physica, Nederlandsch Tijdschrift Voor Natuurkunde," which has been published continuously since 1921, is now to be subdivided into two periodicals. One of these, which is to retain the latter part of the title—"Nederlandsch Tijdschrift Voor Natuurkunde"—will be printed in the Dutch language and will contain surveys on modern physics, brief accounts of investigations in physics in the Netherlands, book reviews, reports of lectures and colloquia, addresses, discussions of matters connected with the teaching of physics, etc.

The other new periodical will retain the former part of the title, that is, "Physica," and will be printed in the English, French and German languages. It will contain original accounts of research work in physics by Dutch investigators. It will also be a continuation of the "Archives Néerlandaises des Sciences Exactes et Naturelles," published by the Hollandsche Maatschappij der Wetenschappen. The editors of the new "Physica" are as follows: J. D. van der Waals, Jr., P. Zeeman, C. Zwikker, G. Holst, D. Coster, F. Zernike, A. D. Fokker, A. F. Holleman, W. J. de Haas, W. H. Keesom, H. A. Kramers and L. S. Ornstein.

This establishment of both an indigenous and an international journal represents an interesting undertaking by which the scientists of a small country using a little known language may hope both to maintain national traditions and also to secure international recognition for their achievements.

The initial article in this new Journal is from the Kamerlingh Onnes Laboratory. It describes experiments on the adiabatic cooling of paramagnetic salts in magnetic fields where, by using the Debye-Giauque procedure, temperatures as low as 0.05°K. appear to have been realized.

ARTHUR B. LAMB

Gmelin's Handbuch der anorganischen Chemie. (Gmelin's Handbook of Inorganic Chemistry.) Eisen- und Stahllegierungen. (Iron and Steel Alloys.) A Collection of Patents by Dip. Eng. A. GRÜTZNER, Oberregierungsath and Member of the Imperial Patent Office. A Supplement to the Metallurgy of Iron. Verlag Chemie, G. m. b. H., Corneliusstrasse 3, Berlin W 10, Germany, 1932. 308 pp. 17 × 25 cm. Price, RM. 32.

This volume gives a brief digest of all the patents on iron and steel alloys issued from 1880 up to March, 1932, in Germany, England, France, Austria, Switzerland and the United States. The patents are grouped in the order of the increasing complexity of the alloys described and in the alphabetical order of the symbols of the element or elements other than iron and carbon present in these alloys. The composition, properties and uses of the alloys,

together with the author and literature references of the patents, are given.

ARTHUR B. LAMB

Organic and Bio-Chemistry. By R. H. A. PLIMMER, D.Sc., Professor of Chemistry in the University of London, at St. Thomas's Hospital Medical School. Fifth edition. Longmans, Green and Co., 55 Fifth Ave., New York, 1933. x + 624 pp. Illustrated. 16 × 25.5 cm. Price, \$7.50.

This familiar handbook now appears in its fifth edition under a slightly altered title. The general treatment (which has consistently grown through the previous editions) has been to consider organic chemistry as the basis of physiological chemistry. In this edition the theoretical treatment of organic chemistry has been extended and further amplification has also been made of the practical work. The practice has been retained of indicating experiments by marginal asterisks, so that the continuity of the text is preserved. This text-book maintains that happy balance of being at once an ample reference book and a working laboratory manual and is without doubt especially useful for a course in physiological chemistry not having the prerequisite of organic chemistry.

LAWRENCE T. FAIRHALL

Les Problèmes Biologiques. Vol. XVIII. Le Métabolisme de L'Azote. (Depenses, Besoins, Couverture). (Biological Problems. Vol. XVIII. Nitrogen Metabolism.) By ÉMILE F. TERROINE. Collection de Monographies. Presses Universitaires de France, 1933. xv + 562 pp. Price, fr. 125.

The author presents an extensive treatment of the problems of nitrogen metabolism. The material is presented under the general headings of excretion; the extent of nitrogen requirement, including the value of various foods in general, of proteins both complete and incomplete, the supplementary value of proteins, and the utilization of digestible products; the problems of gross nitrogen metabolism in which the question of non-protein nitrogen and its mode of utilization are especially discussed. The book concludes with a consideration of the role of amino acids in metabolism and the theories of nitrogen metabolism.

The author has successfully brought together and digested the literature on nitrogen metabolism. This book combined with a more extensive discussion of amino acids in the Monograph of the American Chemical Society by Mitchell and Hamilton makes a complete survey of the problems of protein metabolism. The book naturally includes a very complete discussion of the literature published in France which is not always recognized as much as it should be. A subject index would have increased the usefulness of the book to a very considerable degree.

P. E. HOWE

Fortschritte der Biochemie. II. Teil (1924-1931). (Contributions to Biochemistry. Part II. (1924-1931).) By FELIX HAUROWITZ, Prague. Verlag von Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany, 1932. x + 152 pp. 15.5 × 22.5 cm. Price, RM. 11; bound, RM. 12.

As the author indicates, the purpose of this small volume is to acquaint biologists and chemists with the results of recent investigations in biochemistry. After an introductory chapter on the nature of matter and radiation, consideration is given to such subjects as phase boundaries, catalysis, constitution and oxidation of carbohydrates, chemistry of muscular contraction, structure of proteins, nucleic acid derivatives, immunity reactions, isoprene derivatives, vitamins, hormones and biochemical methods. Each subject is presented in a simple and concise fashion with numerous references to literature of the period 1924-31. As the subjects indicate, there is more sympathy for organic than for physical chemistry. This is perhaps in harmony with the announcement of the publishers of this series that a volume on Biophysics is in preparation.

D. B. DILL

BOOKS RECEIVED

January 15, 1934-February 15, 1934

- ROBERT H. BRADBURY. "A First Book in Chemistry." D. Appleton-Century Company, Inc., 35 West 32d St., New York. 633 pp. \$1.80.
- FRITZ EPHRAIM. "A Textbook of Inorganic Chemistry." Translated from the German by P. C. L. Thorne. Second edition, revised and enlarged. Gurney and Jackson, 33 Paternoster Row, London E. C. 4, England. 873 pp. 28/- net.
- MARTIN H. FISCHER AND MARIAN O. HOOKER. "The Lyophilic Colloids (Their Theory and Practice)." Charles C. Thomas, 300 East Monroe St., Springfield, Ill. 246 pp. \$4.50.
- O. HASSEL. "Kristallchemie." Verlag von Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany. 114 pp. RM. 9; bound, RM. 10.
- HARRY N. HOLMES. "Out of the Test Tube." Ray Long and Richard R. Smith, Inc., 79 Madison Ave., New York. 373 pp. \$3.00.
- ERNST JÄNECKE. "Ueber heterogene Gleichgewichte chemisches Stoffe in Wissenschaft, Natur und Technik." Sammlung chemischer und chemisch-technischer Vorträge, Ahrens, Neue Folge, Heft 21. Verlag von Ferdinand Enke, Hasenbergsteige 3, Stuttgart W 1, Germany. 32 pp. RM. 2.70.
- FREDERICK W. JOHNSON. "Easily Interpolated Trigonometric Tables with Non-Interpolating Logs, Cologs and Antilogs." The Simplified Series Publishing Company, 1381 Third Ave., San Francisco, Cal.
- CHARLES A. KOFOID, Editor-in-Chief. "Termites and Termite Control. A Report to the Termite Investigations Committee." University of California Press, Berkeley, Cal. 734 pp. \$5.00.
- J. R. PARTINGTON. "A Textbook of Inorganic Chemistry for University Students." Fourth edition. The Macmillan Company, 60 Fifth Ave., New York. 1062 pp. \$4.25.
- J. A. RADLEY AND JULIUS GRANT. "Fluorescence Analysis in Ultra-violet Light." D. Van Nostrand Co., Inc., 250 Fourth Ave., New York. 219 pp.
- L. V. REDMAN AND A. V. H. MORY. "The Romance of Research." A Century of Progress Series. The Williams and Wilkins Company, Mt. Royal and Guilford Aves., Baltimore, Md. 149 pp. \$1.00.
- H. RHEINBOLDT. "Chemische Unterrichtsversuche. Ausgewählte Beispiele für den Gebrauch an Hochschulen und Höheren Lehranstalten." Verlag von Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany. 326 pp. RM. 10.
- D. M. SMITH. "Metallurgical Analysis by the Spectrograph." British Non-Ferrous Metals Research Association, Regnart Building, Euston St., London N. W. 1, England. 114 pp. 10s./6d.
- "Description of Sowing of Cotton Seed Chemically Treated with Concentrated Sulfuric Acid." By V. STETZ. Central Asia Institute of Cotton Industry, Ak-Kavak Central Experiment Station. Union of State Publishing Offices, Central Asia Division, Tashkent, U. S. S. R. 16 pp.
- "Fertilizers for Cotton." Parts I and II, Articles by Different Authors. Central Asia Scientific Research Cotton Institute (NIHI), Ak-Kavak Central Experiment Station. Union of State Publishing Offices, Central Asia Division, Tashkent, U. S. S. R. Part I, 108 pp. 3 r., 20 k. Part II, 68 pp. 1 r., 75 k.
- "The Fight for Cotton." Nos. 2-3, 4-5, 1933. Edited by the Peoples Commissar of Agriculture of Usbek S. S. R. Tashkent, U. S. S. R. Nos. 2-3, 202 pp., 2 r. Nos. 4-5, 164 pp., 2 r.
- "Gmelins Handbuch der anorganischen Chemie." 8 Auflage. System-Nummer 59: Eisen, Teil A, Lieferung 5. Herausgegeben von der Deutschen Chemischen Gesellschaft. Verlag Chemie, G. m. b. H., Corneliusstrasse 3, Berlin W 10, Germany. 310 pp. RM. 50; to subscribers, RM. 43.50.
- "New Problems in Cellulose Manufacture." Lectures by G. N. Konopatzki, I. L. Kagan and N. A. Rosenberger. Proceedings of the First Leningrad Regional Meeting of NITO. 80 pp.
- "New Problems in Cellulose Paper Manufacture." Proceedings of the First Leningrad Regional Meeting of NITO. 140 pp. 2 r.
- "Veröffentlichungen des Wissenschaftlichen Zentral-laboratoriums der Photographischen Abteilung-AGFA." Band III. Verlag von S. Hirzel, Königstrasse 2, Leipzig C 1, Germany. 313 pp. RM. 15.