

beautifully developed large prisms, which were not hygroscopic and were devoid of action toward Fehling's solution. The compound was found to be stable in neutral and alkaline solutions, but it suffered rapid decomposition at room temperature in acidic media. Experiments carried out in fermentation saccharimeters showed that while yeast was capable of fermenting fructosedimethyl-acetal in distilled water to give carbon dioxide, methyl and ethyl alcohols in almost quantitative yield, it was without any effect on the acetal in a citric acid-disodium phosphate buffer solution of pH 7. The action of different invertase samples on the acetal at pH 4.5 and pH 7 was found to be

completely negative, although the same samples were very active on sucrose under identical conditions.

In view of the extreme sensitiveness of the acetal toward acid, the action of yeast in an unbuffered solution might be due to the fermentation of fructose liberated from the acetal by a trace of the acid of the yeast, rather than to a genuine enzymatic effect. This problem is now being investigated. A detailed account of the work will be published shortly.

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PRINCETON UNIVERSITY
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EUGENE PACSU

RECEIVED AUGUST 11, 1938

NEW BOOKS

Modern Theories of Organic Chemistry. By H. B. WATSON, D.Sc. (Wales), F.I.C., Head of the Department of Chemistry at the City of Cardiff Technical College. Oxford University Press, 114 Fifth Avenue, New York, N. Y., 1937. vii + 218 pp. 21 figs. 16.5 × 25 cm. Price, \$4.50.

"Professor G. N. Lewis's conception of the sharing of one or more electron pairs by two atoms gave a new and illuminating picture of the bonds which link carbon atoms into chains and rings, and set organic chemists the task of interpreting the reactions of carbon compounds of various types in terms of the electronic structures of the molecules."

"In this volume an attempt is made to present the modern viewpoint in a concise and simple form, and to show how the new conceptions have followed logically from the earlier views." As is evident from its size, the book does not undertake to be complete in detail, nor to provide an exhaustive bibliography. The chapters deal with: Theories of Chemical Combination; The New Physical Methods of Investigation; Applications of the Electronic Theory in Organic Chemistry, Strengths of Acids and Bases, The Inductive Effect; Substitution Reactions; General Discussion of the Application of the Electronic Theory in Organic Chemistry; Free Radicals; Compounds of Divalent Carbon and Allied Problems; Addition to Unsaturated Compounds; Tautomeric Change; Migrations from Side-Chain to Nucleus and Other Rearrangements; The Factors Determining Reaction Velocity; A Review of Some Stereochemical Problems.

The author has an exceptionally clear and logical style. This is at its best in the introductory chapters, which can be recommended not only to students, but to every organic chemist who wishes to consider what modern physics has done for the understanding of his science. Briefly Professor Watson has put the last fifteen years into their

place in chemical history, and in this placing has built a vigorous viewpoint for the present.

In the electronic interpretation of organic reactions, certain English chemists have been pioneers. Their views might originally have been more cordially received in this country if presented inductively and in terms whose meanings are well known. Professor Watson has accomplished this. He has placed the horse consistently before the cart and has shown the necessity of each concept introduced. Proceeding on this basis, he uses fewer ultimate variables than have appeared in some discussions in this field.

Chapters 6 to 10 and 12 make a less unique contribution, for in their brevity they contain little material not usually included in courses in advanced organic chemistry. Even the consideration of evidence on specific problems is far from complete. Nevertheless, the clear and discriminating presentations of some of the problems are likely to be a better introduction for students than a more exhaustive descriptive treatment.

The printing of the book is up to the usual good standard of the Oxford University Press. The publishers have done well to put the price within the reach of most students and teachers.

PAUL D. BARTLETT

The Chemistry of the Steroids. By HARRY SOBOTKA, Chemist to the Mount Sinai Hospital, New York. The Williams and Wilkins Company, Mt. Royal and Guilford Avenues, Baltimore, Maryland, 1938. xiii + 634 pp. 15 × 23.5 cm. Price, \$8.50.

The word "Steroids" is a newcomer to the terminology of the organic chemist. According to the author it "is meant to comprise sterols and steroids, *i. e.*, sterol-like

substances." The introduction of this new term seems rather unfortunate. It might lead to some confusion, since the term "steroid," introduced only a few years ago, refers already to the derivatives of cyclopentenophenanthrene in general.

"The Chemistry of the Sterids" is not a textbook, but a handbook; it is a combination of a "Houben-Weyl," "Landolt-Börnstein" and "Beilstein" of steroid chemistry. The author has undertaken the laborious task of selecting from almost countless papers all the facts concerning the chemistry of steroids, and presenting them in a logical and readable form.

After an introductory chapter on the history of the chemistry of "sterids," the author deals with the various methods of structural research, steric considerations, the chemical properties of naturally occurring steroids and of carcinogens, and molecular compounds. Over 400 structural formulas, which have been brought together on 46 separate pages, serve to illustrate the text.

Then follows a compilation of the physical properties of steroids. This includes much invaluable and interesting information, such as, for instance, a complete list of the known absorption spectra of steroids and references to steroid crystallography.

The bulk of the book, 336 pages, is taken up by the "Beilstein" section, "a classified catalog of sterids and their derivatives recorded before January 1, 1937." Here over 3000 substances have been arranged according to a very ingenious system which should appeal to all investigators in this field. A very fine bibliography, covering over 60 pages, has been added.

Because it is essentially a handbook, this work cannot be recommended to serve as an introductory text to a student possessing only a scant knowledge of the complexities of steroid chemistry. However, it will be welcomed as an invaluable source of information by those investigators who have more than a passing interest for this field of research. The author deserves their gratitude for this compilation, which will save them many hours of search through an endless literature.

WERNER BERGMANN

Perspectives in Biochemistry. Thirty-one Essays Presented to Sir Frederick Gowland Hopkins by Past and Present Members of his Laboratory. Edited by JOSEPH NEEDHAM and DAVID E. GREEN. Cambridge University Press: The Macmillan Company, 60 Fifth Avenue, New York, N. Y., 1937. ix + 361 pp. Illustrated. 14.5 × 22.5 cm. Price, \$4.75.

Scientific writing for the most part finds its way into journals whose reputations depend increasingly upon the size of their circulation and speed of publication. The exigencies of price curtail space and individual literary style is perforce sacrificed to a crisp staccato manner, highly satisfactory to enable large numbers of people rapidly to digest the contents of an article. Excellent from this point of view, there is little room for historical perspective, for philosophical rumination, or for guarded speculation. Although journals given over to reviews take care of the first need, rumination often becomes a private feast, and speculation is left for those who, having eschewed science

for journalism, can assure the eager and expectant public precisely what kind of a world this will be fifty years hence.

Among the amenities left to men of science is the pleasant habit of dedicating volumes to those they revere, especially their old teachers. But the Festschrift, or jubilee volume, has tended, with the rest of scientific writing, to be a collection of papers written by colleagues or students in the same style, and often in the same journals to which they normally contribute. The book which we are reviewing is not in this tradition. It is not a collection of reprints from scientific journals. It is a series of essays in which each author has taken time "to speculate a little on the likely paths of future thought and discovery."

The value of this volume depends upon the backgrounds and scientific insight of the contributors. All have at one time or other been students of, or associated with, Sir Frederick Gowland Hopkins. Of the thirty-one essayists many have international reputations gained from important experimental studies. Writing in this book to honor Sir Frederick they are in festive mood. Instead of dedicating to their great teacher their last paper they have sent him their most far reaching thoughts regarding the significance of their work. The result is arresting. It is good to know what R. A. Peters thinks of "Proteins and Cell-Organization." J. D. Bernal contributes "A Speculation on Muscle." Szent-Györgyi writes on "Oxidation and Fermentation," and N. K. Adam on "Molecular Forces, Orientation and Surface Films." Sir Edward Mellanby writes on "Toxamins in Food," and A. J. Clark on "Drugs and Mankind." The remainder of the thirty-one essays are no less varied in subject matter or treatment. Although this would be a break with the practice of exempting those honored from contributions, one cannot help wishing that this very catholic volume also contained an essay by Sir Frederick Gowland Hopkins on "Perspectives in Biochemistry."

EDWIN J. COHN

The Chemistry and Technology of Rubber Latex. By C. FALCONER FLINT, Ph.D., D.I.C., A.I.C., A.R.C.S., B. Sc., Imperial Chemical Industries, Ltd. Foreword by Lt. Colonel B. J. EATON. D. Van Nostrand Co., Inc., 250 Fourth Ave., New York, N. Y., 1938. xx + 715 pp. Illustrated. 16 × 24 cm. Price, \$14.00.

There are few people who by actual training are so well equipped to write a book on the chemistry and technology of rubber latex as is Dr. C. Falconer Flint. For many years a staff member of the Rubber Research Institute, of Malaya and now in charge of latex research and development with the Imperial Chemical Industries, Ltd., he combines personal experience of the raw material and its technical application. Although in the preface the author states that he used G. Génin's book "Chimie et Technologie du Latex de Caoutchouc" as a framework, he has not only brought this compilation up to date but has added freely to it, which justifies the reviewer to consider Flint's book as the outstanding contribution to the science and technology of rubber latex which has been written in English.

The first parts of the book present a short historical survey of the development of rubber plantations and earlier work on latex research. Then follows a discussion of the

rubber trees, the physiology and formation of latex and its production. These chapters clearly show the earmarks of the present author. The composition and properties of latex are carefully worked out contributions followed by detailed discussions of latex coagulation, preservation, and concentration. In the latter chapter the latest process of concentration by electrodecentration has not yet been included.

The chapter on compounding of latex discusses in great detail dispersing agents for latex compounds and offers a series of such materials as examples. It is interesting to note that sulfonic acid derivatives of organic compounds are not mentioned, although today their extreme efficiency is an established fact.

In the discussion on the use of sulfur we find the statement that colloidal sulfur generally consists of an aqueous suspension containing from 50-60% dry matter, the particle size being several microns. Although this is a frequent misnomer, the reviewer feels that it should not be found in a scientific treatise. Disperse sulfur is the correct term.

The section treating accelerators can safely be considered as an entirely new contribution and should prove very helpful to every latex compounder. From the point of view of an impartial reviewer, it would have been commendable had somewhat more attention been given to accelerators and other special compounding ingredients placed on the market by other manufacturers than I. C. I.

Referring to the vulcanization of latex and specifically to the Vultex process, Dr. Flint makes it clear that in his opinion, also, the addition of ultra-accelerators to latex which results in a certain degree of vulcanization upon storage cannot be considered as a patent infringement. This is in accord with a recent decision by Judge Brewster in the District Court of Massachusetts, U. S. A.

Other chapters are devoted to the technical application of latex, such as dipping, impregnation of fibers and fabrics, latex thread,¹ sponge rubber, microporous rubber, moulded rubber goods, latex bonded hair, the use of latex in the paint and varnish industry. There are also chapters on adhesives, its use as an anti-corrosive coating, as a binder in the manufacture of brake-linings and abrasives, its application in can sealing, the production of artificial leather, its use in the insulation of cables, as an ingredient for road or floor coverings, and other constructional applications.

The last chapter is concerned with the physical testing of latex rubber and the production of artificial rubber dispersions and synthetic latices.

Dr. Flint's new book deserves high praise from all those interested in latex who wish to keep currently informed on the rapid development in this field. The author has taken pains to have literature and patent references as complete as possible in such a type of book. It may be deplored that the book followed the American custom of adding the references at the end of every chapter, instead of in the form of pagewise footnotes, as this is a disadvantage to the majority of readers.

The print of the book is easy to read and well set. From a detailed survey of the numerous figures and plates,

among which the reviewer could not help noticing those copied from certain publications of his own, the reproductions of this book must be considered excellent. There are practically no typographical errors. The subject index needs amendment if the book is to be of value for quick reference. However, these minor objections are by way of constructive criticism only. The book as a whole is highly recommendable.

ERNST A. HAUSER

Die Korrosion von Nichtisenmetallen und deren Legierungen. (The Corrosion of Non-Ferrous Metals and their Alloys.) Edited by Prof. Dr. Phil. OTTO KRÖHNKE, Berlin-Schlachtensee, and Prof. Dr. Phil. GEORG MASING, Göttingen. Verlag von S. Hirzel, Königstrasse 2, Leipzig C 1, Germany, 1938. xxx + 901 pp. 409 figs. 17.5 × 25 cm. Price, RM. 66.50; bound, RM. 69.

This, the second volume of a series of four [see, THIS JOURNAL, 58, 1508 (1936)], covers the corrosion of non-ferrous metals and their alloys. The space devoted to each of the several metals is roughly proportional to its technical importance as judged by the present requirements of science and technology (in Germany). Metals having no essential "technical importance," such as building materials, are not discussed at all.

A summary of the principal contents of the several sections follows. The methods of corrosion testing and research, pp. 1-59, are discussed by P. Brenner under the headings, general testing procedure, necessary data, under natural conditions, laboratory tests, measurements of the amount of corrosion, criticisms of testing methods, review of selected tests. Copper and copper alloys pp. 60-287, by O. Dahl and W. Wunder, copper pp. 60-149, brass pp. 149-227, tin bronzes pp. 227-248, aluminum bronzes pp. 248-263, copper-nickel alloys pp. 263-275, and ternary copper alloys containing nickel pp. 275-280, copper-silicon alloys, pp. 281-283, are separately discussed in detail under the headings, corrosion in general, in liquids, and in gases. There are also brief treatments of copper-beryllium alloys, pp. 283-286, alloys of copper with magnesium, cadmium, manganese, phosphorus, and silver, pp. 286-287.

The corrosion of pure aluminum by R. Sterner-Rainer, pp. 288-318, takes up the influence of impurities, of physical state, and of different corrosion agents. A section which deals in considerable length with the corrosion of aluminum cast alloys by R. Sterner-Rainer, pp. 319-384, includes the influence of the added alloy constituent on the chemical stability, resistance toward natural corrosion agents, corrosion by chemicals, influence of corrosion including surface coatings on aluminum cast alloys on specific properties. A long section on malleable aluminum alloys by P. Brenner, pp. 385-444, discusses alloy composition, review of malleable aluminum alloys, heat treatment and cold working, corrosion and simultaneous mechanical movement, testing procedure, corrosion stability of malleable aluminum alloys, metal clad industrial materials. Magnesium and magnesium alloys by W. Schmidt and W. Schultze, pp. 445-477, discusses the influence of alloying metals, atmospheric attack, various corrosion protective measures. A lengthy discussion of lead and lead alloys by M. Werner, pp. 478-595, includes the physi-

(1) Here the reviewer misses a reference to the manufacture of "constrolastic" thread, which in his opinion certainly constitutes one of the most interesting developments of the last years.

cal and mechanical properties of lead, general theory of corrosion stability, pure lead, lead alloys, technical lead and impurities, applicability of lead as corrosion resistant industrial material, a few special questions on the behavior of lead. A lengthy section on zinc pp. 596-670 by W. Wiederholt, discusses the electrochemical and chemical behavior of zinc in water, salt solutions and acids, in alkalis, in inorganic and organic compounds, in gases, in technical applications, and behavior of zinc alloys. Cadmium, pp. 671-685, and tin, pp. 686-721, by W. Wiederholt includes electrochemical and chemical behavior. Tungsten, molybdenum, and chromium, pp. 722-723, nickel and its alloys, and cobalt, pp. 724-764, are discussed by W. Rohn and C. Francke. They include general theory, testing procedures, nickel and its alloys in daily use and in the chemical industry, nickel and cobalt alloys with metals of the chromium group, nickel and its alloys at high temperatures, sulfur stable alloys, corrosion and aging of thermoelements. Corrosion of noble metals by L. Nowack and J. Spanner, pp. 765-827, is a long section covering introduction, physical properties, and uses of gold, gold alloys, gold as a metal coating, silver, silver alloys, silver as metal coating, platinum metals, alloys of mixed platinum metals, other alloys, platinum metals as coatings. There is a general discussion of noble metals and their alloys in the presence of various corrosive substances.

An author index of 12 pp. and a subject index of 60 pp. complete the volume. The present compilation is a valuable contribution to the literature.

MERLE RANDALL

The Chemical Analysis of Foods and Food Products. By MORRIS B. JACOBS, Ph.D., Chemist, Bureau of Food and Drugs, Department of Health, City of New York. D. Van Nostrand Company, 250 Fourth Avenue, New York, N. Y., 1938. xxii + 537 pp. 56 figs. 16 × 23.5 cm. Price, \$6.00.

The general impression left after a perusal of this book is that in it the methods of food analysis have been brought thoroughly up to date, material being found which is included in no other text. Numerous methods, largely American, are described which first appeared in print as late as 1937, naturally with some danger that not all may have been sufficiently tested to be sure of their true worth. The standard methods of the A.O.A.C. have been drawn upon to a large extent.

The chapter on physical chemical methods covers an unusually wide range, considerable space being given to photoelectric colorimeters, spectrographs, electrometric determinations, surface tension apparatus, and other modern instruments, which are usually discussed only in special treatises. In the section on polarimetry it is regrettable, however, that the author did not include a discussion of the quartz wedge saccharimeter, which is much more widely used in commercial polarizations than the rotary polariscope. As a matter of fact, the "polarimeter" shown (Fig. 23), although stated to be for monochromatic light and to have a rotating analyzer, is actually a compensation saccharimeter using white light. By a curious slip the instrument is said to be capable of using a 40 *dom.* tube.

Other points of marked excellence are the discussion of

pasteurized milk, the chapter on jams and jellies, one of the best in the book, a chapter on chemical methods for estimating vitamins and numerous tables of the composition of foods. Especially noteworthy among the latter are useful data on the detection of adulteration in butter and olive oil and the alcohol table in the appendix, which combines in one table the data obtainable by both densimetric and refractometric methods. In the Munson and Walker method for reducing sugars the more desirable Given table is used rather than the one commonly found.

A few criticisms might be made, although they are largely matters of personal opinion and do not detract from the general excellence of the work. The discussion of the interpretation of milk analyses, if anything more than simple failure to comply with legal standards is to be shown, is practically negligible. It is rather strange, although perhaps to be expected, to see so much stress laid on the New York Board of Health lactometer instead of the more generally used Quevenne form. An anomaly certainly exists between the Ventzke normal weight of 26 grams (p. 259) and the Ventzke normal weight of 26.026 grams (p. 260), a discrepancy which, although based on the authority of the A.O.A.C., would be confusing to those not acquainted with the controversy which has raged over the Ventzke scale. Where starch is so commonly determined in various foods it would seem advisable to give some more general method than the special one for flours on page 291. Likewise, the only method given for pentosans is the very recent one of precipitation with thiobarbituric acid. The colorimetric tartaric acid method described under fruits is recommended only for use in a tartrate baking powder although no reference to the latter material is found in the index. The colorimetric method for vanillin is described in detail but no caution is given that it has been found notably unreliable with fortified vanilla extracts. The determination of glycerol in vinegar is described at great length although it has little practical value at the present time. No discussion of the range of glycerol in a normal vinegar, other than two figures in a table, is found. One wonders why a method is specified (p. 480) as for "Nitrates in Flesh Foods" when the preceding general method for nitrates is actually the A.O.A.C. method for nitrates in meats.

Other instances might be mentioned, but these are, in general, matters of relatively minor importance. The book is a distinct contribution to the literature of food analysis, the author has done a real service in assembling so much scattered recent material, and the reviewer, for one, is very glad to have the book on his shelf and within easy reach.

A. G. WOODMAN

Handbuch der Lebensmittelchemie. A. BÖMER, A. JUCKENACK and J. TILLMANS. Siebenter Band. **Alkoholische Genussmittel.** (Handbook of Food Chemistry. Vol. VII. Alcoholic Beverages.) B. BLEYER, Editor-in-Chief. Verlag von Julius Springer, Linkstrasse 22-24, Berlin W 9, Germany, 1938. xv + 828 pp. 115 figs. 17.5 × 24 cm. Price, RM. 99; bound, RM. 103.50.

Sponsored by a board of editors whose personnel includes the surviving member of the original group, A. Juckenack,

and three others, J. Grossfeld, E. Bames and B. Bleyer, there has now appeared another volume, the fifth in order of completion, of the "Handbuch der Lebensmittel-chemie."

Quite appropriately the subject matter of this volume is introduced by a chapter on alcoholic fermentation (31 pp.). The authors, B. Bleyer and W. Diemair, treat this topic first in its historical aspects, then from the standpoint of the morphology and the chemical composition of yeast and finally the course and products of fermentation. Following this, the book divides itself into three main parts, devoted, respectively, to beer (139 pp.), wine and other grape products (367 pp.), and distilled beverages (222 pp.). A digest of the pertinent German laws, compiled by H. Holthöfer, supplements each major chapter; those of the principal European countries and the United States in respect to alcoholic beverages have been briefly collated by E. Bames (38 pp.). A well-organized index (31 pp.) completes the book.

The whole volume appears to have been written with that suggestion of authority which can come only from the pens of those who write with the advantage of experience in their own fields. Bleyer and Diemair contribute also the chapter on beer. The subject matter begins with a discussion of the raw materials of the industry, continues with an exhaustive description of the manufacture of beer from malting to fermentation, and closes with a résumé of the properties and composition of beers. The chapter on wine represents the independent efforts of two scientists who are active in official capacities. To E. Vogt was assigned the task of discussing and describing this beverage, its various types and products, from vineyard to finished product. O. Reichard treats the subject from the two-fold standpoint of analysis and official control of traffic therein. The chapter on distilled beverages also is noteworthy. It is the work of G. Büttner. The subject is presented under the following headings: technical recovery of spirits, potable spirits of all types, composition and analysis.

This volume rightfully deserves a place among its predecessors in the series, for by condensing within one set of covers a vast amount of authoritative technical and legal matter it simplifies the work of the food chemist in need either of a reference book or a ready source of information on the subject matter in question.

H. A. SCHUETTE

BOOKS RECEIVED

July 15, 1938-August 15, 1938

- A. DAMIENS, Editor. "Halogènes et Composés Oxygénés du Chlore. Mémoires de MM. Scheele, Berthollet, Gay-Lussac et Thénard, H. Davy, Balard, Courtois, H. Moissan, Millon." Gauthier-Villars, Éditeur, 55 Quai des Grands-Augustins, Paris 6^e, France. 147 pp. Fr. 21.
- LUCIUS JUNIUS DESHA AND LARKIN HUNDLEY FARINHOLT. "Experiments in Organic Chemistry." McGraw-Hill Book Co., Inc., 330 West 42d St., New York, N. Y. 233 pp. \$1.75.
- R. J. W. LE FÈVRE. "Dipole Moments. Their Measurement and Application in Chemistry." Chemical Publishing Company of New York, 148 Lafayette St., New York, N. Y. 110 pp. \$1.50.
- REYNOLD C. FUSON, Editor-in-Chief. "Organic Syntheses. Vol. XVIII. 1938." John Wiley and Sons, Inc., 440 Fourth Ave., New York, N. Y. 103 pp. \$1.75.
- ROSS AIKEN GORTNER. "Outlines of Biochemistry." Second edition. John Wiley and Sons, Inc., 440 Fourth Ave., New York, N. Y. 1017 pp. \$6.00.
- LÉON GUILLET, Editor. "Les Métaux Légers: Aluminium, Glucinium, Magnésium, Métaux Alcalins. Mémoires de MM. Henri Sainte-Claire Deville, Héroult, Bussy, Gay-Lussac, Thénard." Gauthier-Villars, Éditeur, 55 Quai des Grands-Augustins, Paris 6^e, France. 166 pp. Fr. 21.
- JOSEPH J. JASPER. "Laboratory Methods of Physical Chemistry." Houghton-Mifflin Co., 2 Park St., Boston, Mass. 311 pp. \$2.50.
- HENRI LE CHATELIER, Editor. "La Dissolution. Mémoires de MM. Lavoisier, Gay-Lussac, Loewel, Gernez, Lescoeur, Raoult." Gauthier-Villars, Éditeur, 55 Quai des Grands-Augustins, Paris 6^e, France. 148 pp. Fr. 21.
- R. LESPIEAU, Editor. "Détermination des Poids Moléculaires. Mémoires de MM. Avogadro, Ampère, Raoult, van't Hoff, D. Berthelot." Gauthier-Villars, Éditeur, 55 Quai des Grands-Augustins, Paris 6^e, France. 165 pp. Fr. 21.
- W. D. TREADWELL. "Tabellen und Vorschriften zur quantitativen Analyse." Verlag von Franz Deuticke, Helferstorferstrasse, Wien, Germany. 283 pp. RM. 9.
- W. C. VOSBURGH. "Introductory Qualitative Analysis." Revised edition. The Macmillan Co., 60 Fifth Ave., New York, N. Y. 222 pp. \$2.25.
- ROGER J. WILLIAMS. "A Text-book of Biochemistry." D. Van Nostrand Co., Inc., 250 Fourth Ave., New York, N. Y. 525 pp. \$6.00.
- "Committee for the Study of Viscosity of the Academy of Sciences of Amsterdam. Second Report on Viscosity and Plasticity." Nordemann Publishing Co., Inc., 215 Fourth Ave., New York, N. Y. 287 pp. \$7.50.
- "Livre Jubilaire J. Böeseken." *Recueil des Travaux Chimiques des Pays-Bas*, Vol. 57, No. 6, 1938. D. B. Centen's Uitgevers-Maatschappij. N. V., Amsterdam, Holland. 348 pp. Dutch guilders 3.

A. DAMIENS, Editor. "Halogènes et Composés Oxygénés du Chlore. Mémoires de MM. Scheele, Berthollet, Gay-Lussac et Thénard, H. Davy, Balard, Courtois, H. Moissan, Millon." Gauthier-Villars, Éditeur, 55 Quai