

Dr. Long's activities in connection with Chicago's gigantic drainage problems and the volume concludes with a comprehensive bibliography of Dr. Long's publications, comprising 118 contributions.

There is thus compassed in 70 pages, tastefully arranged, a fitting tribute to a man who did so much for chemistry and education. One outstanding feature of Dr. Long's professional life comes back vividly to the reviewer, a characteristic which indexed well his deep, unselfish interest in his profession, namely, his constant attendance and active, helpful participation in the national and sectional meetings of the American Chemical Society. Even long after his health should have demanded more consideration of self, he gave unstintingly of his time, his counsel and his uplifting ideals, to the organization which had given him his highest honor.

The edition is limited to one thousand, and copies may be obtained through Professor Robert H. Gault, Northwestern University, Evanston, Ill.

W. LEE LEWIS.

Grundriss der Kolloidchemie. 6th edition (unchanged reprint of the 5th edition).

By DR. WOLFGANG OSTWALD, Privatdozent at the University of Leipzig. Theodor Steinkopff, Residenzstrasse 12b, Dresden-Blasewitz, Germany, 1921. First half: vi + 329 pp. 60 fig. 16.5 × 24 cm. Price \$2.00.

Colloidal chemistry has developed rapidly during the dozen years that have elapsed since the appearance of the first edition of the "Outline." This development is reflected in the marked expansion shown in this edition, where some 329 pages are required to cover the ground of 140 pages of the first edition.

The mode of treatment, however, is substantially the same as that previously adopted; the subject matter is systematically subdivided in the best Teutonic manner, and each subdivision is thoroughly and carefully discussed in the clear and fluent diction characteristic of the author. The first few chapters of the old edition, dealing with the development of colloid chemistry, have been wholly omitted. It is not too hazardous to predict that, true to hereditary instincts, the author will utilize this product of reproduction by segmentation in an independent volume on the history of colloid chemistry.

The main subdivisions of this first half are: A Practical Introduction; The General Topography of Colloidal Systems; The Relation between the State of Aggregation and the General Properties of Colloidal Systems; The General Energetics of Dispersoids; The Prevalence of the Colloidal Condition, and The Meaning of Colloidal Chemistry; last, The Mechanical Properties of Colloidal Substances.

The paper and type used in this volume leave much to be desired.

ARTHUR B. LAMB.

Festschrift der Kaiser Wilhelm Gesellschaft zur Förderung der Wissenschaften zu ihrem Zehnjährigen Jubiläum dargebracht von ihren Instituten (Memorial Volume published by the Kaiser Wilhelm Gesellschaft). Julius Springer, Berlin, 1921. iv + 282 pp. 19 fig. 26 × 18 cm. Price M. 100; bound, M. 130.

This volume celebrating the tenth anniversary of the establishment of the Kaiser Wilhelm Gesellschaft has been issued by its several Institutes. It contains 33 short articles on the most varied topics of Natural Science. These articles have been prepared by leading German investigators. Those of most interest to chemists are:

- Aberhalden.** A Contribution to our Knowledge of Organic Foodstuffs Exhibiting Specific Activity.
- Beckmann.** The Conversion of Grain Straw and Lupine to Foodstuff of Higher Value.
- Einstein.** A Simple Application of Newton's Law of Gravitation to Globular Star Clusters.
- Fischer and Schrader.** A New Hypothesis Regarding the Origin and Structure of Coal.
- Freundlich and Loening.** Protective and Coagulating Action of Hydrophilic Colloids on Hydrophobic Sols.
- Haber.** Science and Economics.
- Hahn.** Regarding Radioactive Disintegration Series and a New Active Substance in Uranium.
- Hofmann and Myron.** The Chemistry of Sodium Phenolate Fusions.
- Polanyi.** The Adsorption of Gases by Solid Bodies.
- Warburg.** The Physical Chemistry of Cellular Respiration.
- v. Wassermann.** Biological Equilibria in Infections and their Medicinal Significance.

The volume is printed elegantly on excellent paper.

ARTHUR B. LAMB.

Analytische Chemie. By DR. TH. DÖRING, o. Professor an der Bergakademie Freiberg I. Sa. Theodor Steinkopff, Dresden and Leipzig, Germany. 1921. iii + 97 pp. 15 × 21.5 cm. Price \$0.60.

This book is the first volume of a series of "Wissenschaftliche Forschungsberichte" whose object is to indicate the more important contributions to particular fields of science since 1914. The publication of this series is of interest as indicating the steps which are being taken in Germany to "rehabilitate" research by familiarizing the investigator with recently published data, which may not be readily available to him. The present volume treats developments in analytical chemistry from this standpoint. In the introduction it is suggested that advances in analytical chemistry from the beginning of this century to the outbreak of the World War have been especially noteworthy in three directions: (1) the utilization of special organic reagents, such as cupferron and dimethylglyoxime; (2) improvements in physical instruments and increase in their use; for example, the refractometer, colorimeter, and nephelometer; (3) the in-

creased use of physico-chemical principles, especially in the treatment of volumetric analysis.

The subjects treated are the detection, estimation, and separation of the common elements and a few of the rare ones, together with many inorganic anions. The determination of gases in metals, and the elementary analysis of organic substances are also included.

As in any similar case, the selection of the "more important" contributions is a matter of opinion both in regard to omissions and inclusions, and the judgment of the author will not always coincide with that of the reader. Nevertheless, the fact that there are more than 500 footnote references (including duplicates) and that these contain a liberal admixture of other than German references (about 60% are to German periodicals) indicates that the author has attempted a thorough treatment of his subject.

In a book of 86 pages the discussion of each item is necessarily too brief to include many details of operation. The book should, however, fulfil a useful function for the investigator by giving him suggestions from and references to recent advances in analytical chemistry which he could hardly obtain otherwise except by considerable study of the literature.

GRAHAM EDGAR.

A French-English Dictionary for Chemists. By AUSTIN M. PATTERSON, PH. D. John Wiley and Sons, Inc., New York; Chapman and Hall, Limited, London, 1921. xvii + 384 pp. 18 × 12.5 cm. Price \$3.00.

It is a pleasure to welcome a companion volume to Dr. Patterson's useful German dictionary, and the present work embodies the successful features of the other. The book is handy to use, the pages are easy to read at a glance, and the restriction of the vocabulary saves much time and space. In general the selection of words and idioms is excellent, and the translations are accurate.

As Dr. Patterson in his preface invites suggestions, the following points are mentioned.

A current French industrial journal yielded the following words not given in the dictionary: *amodier*, *amodiation*, *acier à coupe rapide*, *déprimomètre*, *remous*. *Calviine* should certainly find a place among medical terms. *Rationnel* means something like "scientific" at least as often as "rational." *Admettre* is insufficiently accounted for by "admit, accept (as true), receive, allow, concede." It often means "postulate," or "suppose." Cf. "Ce chimiste (Avogadro) admit que des volumes égaux . . . contiennent des nombres égaux de molécules." Even though "strong, thick, hard, difficult, severe, skillful, clever" are given for *fort* (a), some such additional adjective as "large" or "great" seems to be necessary in "*une forte proportion*." *Faible* is somewhat better, as we find "slight" as well as "weak" and "feeble," but how about "*la densité du gaz sera plus faible?*" The meaning

“early” for *précoce*, need not have been restricted to “fruit;” it is often applied, for instance, to frost and baldness.

The book is a good one, and will probably be further improved. Chemists who read French need it.

NORRIS F. HALL.

Die Biogenen Amine und ihre Bedeutung für die Physiologie und Pathologie des Pflanzlichen und Tierischen Stoffwechsels. (The Biogenic Amines and their Significance for the Physiology and Pathology of Plant and Animal Metabolism.)
By M. GUGGENHEIM. Julius Springer, Berlin, 1920. viii + 376 pp. 14.5 × 21.5 cm.

A compilation of the literature on biogenic amines down to the early months of 1919 both from the viewpoint of the chemist and the pharmacologist. The amines are classified as follows: alkyl amines, alkamines, neurine group, diamines, guanidine compounds, amidazol compounds, betaines and α -amino acids, phenyl-alkyl and phenyl-alkanol amines, indol-ethylamine.

Seventy pages of references are included.

The author has worked extensively in this field, which as stated in his preface, had been well covered in 1914 by Barger's "The Simpler Natural Bases," Longmans, Green and Company, London.

H. G. BARBOUR.