

In the author's own words special attention is called "to the fact that a large proportion of its accredited compounds are in reality but indefinite solid solutions. This . . . is due to the abnormal extent to which its hydroxide is soluble in solutions of its normal salts giving rise to solids of almost any degree of basicity or to solutions with decreased osmotic effects."

The first chapter treats of the discovery, name, history, occurrence, and extraction as well as the detection, separation, and determination of beryllium. In the succeeding chapters the metal, its normal compounds and its acid and normal salts are discussed. The final chapter in Part I is concerned with an illuminating consideration of the basic compounds. Part II contains the bibliography.

Dr. Parsons has conferred a favor upon his brother chemists not only by placing within their easy reach the results of his own and others' investigations, but also by furnishing them with so full an index to the subject as greatly to facilitate future work along the same line.

The book may well be studied not only on account of its inherent value as a source of information regarding beryllium, but also as a model to follow in taking up the discussion of other elements.

No student of inorganic chemistry and no chemical library should fail to have it.

PHILIP E. BROWNING.

A Manual of Volumetric Analysis. For the use of Pharmacists, Sanitary and Food Chemists, as well as for Students in these Branches. BY HENRY W. SCHIMPF, Ph.G., M.D. Fifth Edition, Illustrated. 8vo, xx + 725 pages. New York: John Wiley and Sons. Price, \$5.00.

This book, which is called a fifth edition, is a revision of an earlier work by the same author, known as "A Text-book of Volumetric Analysis." As the title indicates, it has been prepared with special reference to the needs of pharmacists, and in its nomenclature and other features seems to be related to the Pharmacopoeia of the United States. This may increase the value of the book for certain classes of chemists, but it has, in turn, drawbacks. One of the most important of these is found in the use of the atomic weights based on the hydrogen standard. As the great majority of chemists employ the other tables, this catering to the pharmacopoeial usage must be considered as a decided disadvantage in the use of the book.

Besides the common and introductory processes of volumetric analysis found in most books of this class, this work contains a large number of special processes, and is unusually full on methods of drug assaying. This section seems to be well written and will appeal to all who have occasion to make such determinations. Some of the common methods employed in water analysis and urine analysis are also presented, but

by no means critically. However, as numerous literature references are given it is possible to refer to the original methods and authorities. Eighteen chapters are given to the discussion of volumetric methods for as many metals: most of the processes described are the standard methods used in practice, but in the effort at completeness some things of very doubtful value are introduced.

In spite of these possible blemishes the book has merit, and will prove unquestionably of use in the class of laboratories for which it is written. The mechanical work on the book and its general appearance are commendable.

J. H. LONG.

Neuere theoretische Anschauungen auf dem Gebiete der Organischen Chemie. BY DR. VERDINAND HENRICH. 294 pp. Braunschweig: Friedr. Vieweg & Sohn. 1908. Price, 8 marks, bound.

The title of the book indicates its nature. It is intended not only as a guide for students in advanced courses but equally so as a useful reference book for chemists in general. Those who are interested in the development of the working hypotheses in the field of organic chemistry during the last fifteen–twenty years will find in Dr. Henrich's *Anschauungen* a clear, concise, and an unbiased, exposition of these hypotheses. The material is presented not from a critical, but rather from an historical point of view.

After a brief review of the older theories of Berzelius, Dumas, Laurent, Liebig, etc., the *Valence Theory* of Kekulé is taken up and discussed in all its phases. The author brings out clearly the historical as well as the logical connection which exists between Kekulé's theory on the one hand and the various hypotheses dealing with stereochemistry on the other hand. A relatively large amount of space is devoted to the discussion of Thiele's *Partial-Valence* theory. Chapters VIII–X cover the subjects: Tautomerism and Desmotropism; Pseudo-acids and Pseudo-bases; Tautomerism of Ions; The Relation between Chemical Constitution and Color. The chapter on tautomerism is especially well written. Molecular rearrangements—chemical changes which differ from such of tautomerism in not being readily reversible—are taken up next. Then follows a chapter on the *Basic Properties of Oxygen*, describing in the usual conventional way the well-known work of Collie and Tickle on the salts of dimethylpyrone, of Kehrman on the azoxonium salts, of Baeyer and Villiger on the salts of alcohols, ethers, aldehydes, etc., and of Werner on the carboxonium salts. All this is presented in the purely historical way and no attempt is made to show that the conclusions arrived at by the different investigators are rather contradictory to, than in harmony with, each other. Separate chapters are devoted to each, Nef's methylene chemistry, Michael's recent theoretical system and to Werner's theory