

of a collection of their valuable papers in book form. Vol. I published somewhat over a year ago deals with "Complex Inorganic Acids." Volume II, now before us, contains the researches on Hydroquinones and Derivatives which were begun under the author's teacher, Prof. Dr. Rudolf Nietzki.

That science is international is again demonstrated by the fact that one of the valuable papers on pp. 172-178 is written and published in French: "Sur les dérivés nitrés de l'hydroquinone."

What a mint of information is in this book can be seen from the Table of Contents which fills three and a half pages, the Author's Index which occupies the same space and the Subject Index which occupies five double-column pages. The many bibliographic references further enhance the value of this book.

Kurzes Lehrbuch der Chemie in Natur und Wirtschaft. Von Prof. Carl Oppenheimer, Dr. phil. et med. Berlin. Nebst einer Einführung in die Allgemeine Chemie. Von Prof. Johann Matula in Wien. Lex. 862 pp. Cloth \$6.55.

The author is a well-known authority, having written several books on chemistry and biology. It was his aim to produce a real textbook on practical chemistry, useful to students, pharmacists, physicians, chemists, biologists and also to the laity. In the opinion of the referee he has succeeded, although the so-called "Brief Text-Book" forms a stately volume of 862 pages in Lexicon format.

Part I consists of 258 pages and deals with general chemistry and has been written by Professor Johann Matula in Vienna. Its division is excellent as can be seen from the following chapter headings: Elements, Atoms and Molecules; State of Aggregation; Constitution; Reactions; Chemical Energy. In this part the physical and chemical laws, the periodic system, radioactivity, crystallography, solutions, colloids, valence including Kossel's Theory, optical rotation, mass reaction, catalysis, status wascendi, adsorption and adsorption, thermochemistry, electrochemistry and photochemistry are thoroughly explained. This ordinarily dry subject of general chemistry is interestingly written, accompanied by explanations which are strikingly clear and simple and up to date.

Part II consists of 325 pages and is devoted to inorganic chemistry and is as usual subdivided into Non-Metals and Metals. How thoroughly this subject is treated can be seen from the chapter on Phosphorus which con-

tains: history, occurrence, physical and chemical properties, manufacture, technical uses, matches, tests and detection, physiology, pharmacology, P and H, P and halogens, P and O, hypophosphorus, phosphorous and phosphoric acids, chemical properties, manufacture, physiology, pyro and meta phosphoric acids, P and S and N. The addition of the paragraphs on history, physiology and pharmacology of the elements and their compounds is a step in the right direction which will help to make the book interesting and popular.

Part III comprises 483 pages and deals with organic chemistry. The general chemistry of this part contains an excellent chapter, "Relation between Constitution and Properties," pp. 406-422. How interesting and how instructive this chapter is can be seen from the following subdivisions: crystalline structure, specific gravity, solubility, melting point, boiling point, optical properties (rotation and refraction), color, calorimetry, structure, and pharmacological action. The information in this chapter is worth the price of the book.

The Acyclic Compounds are subdivided into Nitrogen-free, Nitrogen Compounds and Carbohydrates. The Cyclic Compounds are subdivided into Carbocyclic and Heterocyclic Compounds. The last part of the book is devoted to "Biocolloids containing Nitrogen" and deals with Proteins (chemistry and uses, including albumins, globulins, proteids, etc.), Ferments (chemistry and action) and Antigens and Antibodies.

The Index of this master work is quite unusually detailed and complete, as the subject index comprises 40 and the authors' index 6 pages of 3 columns each. The book is well printed on good paper with but few typographical errors. A careful study of the work discloses the fact that the author is extremely well acquainted with the subject and has therefore given the world an exceptionally good book. The addition of paragraphs on the history, pharmacology and physiology is of special advantage. Many teachers will find in this book simplifications of pedagogical methods which will be helpful. Students of chemistry and pharmacy will be pleased with the concise but explicit explanations. Chemists, physicians and pharmacists can use the work to good advantage as a text and reference book. The work is indeed a real contribution to the field of science and should also become known on this side of the Atlantic.

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