

plicated, that such a book as the present one is very welcome. Without attempting to give any details as to physical properties or methods of preparation for the derivatives of camphor, it does give a very clear oversight of nearly all of the relationships among those compounds which are important in establishing its structure. The work includes: 1, A brief statement with regard to each of the thirty-three formulas which have been proposed for camphor (or for camphoric acid); 2, a summary of the facts which must be considered in deciding what is the true structure; 3, a criticism of the formulas which have been proposed. This criticism demonstrates, conclusively, that of all the formulas proposed Bredt's is the only one which can now be considered as possible; 4, a consideration of other important decomposition products of the camphor; 5, a discussion of the structure of camphene and borylene.

When we consider the very large number of compounds which must be spoken of in such a discussion and the confusion which exists in the nomenclature of some of these bodies, it would seem almost impossible to avoid some mistakes. Very few have been noticed. The most important are the following: On page 61, α -dihydrohydroxy- β -campholytic acid is spoken of as identical with $[\gamma]$ -dihydrohydroxy- α -campholytic acid; on page 57, Walker's "allocampholytic acid" is called " α -campholytic acid"; and on page 68, the active α -campholytic acid is not properly distinguished from the racemic form of the same compound.

The student who is interested in the special study of camphor will find the book a most useful summary of our present knowledge of the subject, and the general student can scarcely find a better illustration of the nature of the work which must be done for the determination of the structure of a complex organic compound. And the fact that the solution of the problem which has been reached has the support of every one familiar with this particular field, in spite of the diversity of opinion which has prevailed till very recently, demonstrates that very positive results have finally been obtained.

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L'ACÉTYLÈNE. THÉORIE. APPLICATIONS. BY MARIE-AUGUSTE MOREL.
Paris: Libraire Gauthier-Villars. 1903. 8 vo. xii + 169 pp.

This book is written by an engineer and gives a thermochemical and mathematical treatment of its subject. Its contents are well

indicated by the chapter headings: I, General remarks upon the constitution of the hydrocarbons; II, general remarks upon the metallic carbides and the generation of the hydrocarbons; III, calcium carbide, its physical and chemical properties, its applications; IV, acetylene, its preparation, its physical, chemical, and toxic properties; V, the calorific, optical, and explosive properties of acetylene. Burners: VI, The different applications of acetylene. Lighting, heating, motive force: VII, New considerations upon generating apparatus for acetylene gas. A note upon the thermodynamic potential is appended. The sixth chapter begins with a brief history of artificial illumination in general.

There are a few noticeable errors. On page 33 an equation is balanced, using the formula CaCl for calcium chloride. On pages 40 and 54 no attention has been paid to the work of Keiser,¹ who has shown that cuprous acetylide contains no oxygen and no hydrogen. The author gives it the formula $\text{C}_2\text{HCu}_2\text{OH}$ on page 40. Dr. Auer von Welsbach's name is spelled "Velbasch" on page 101. On page 150, a figure is given to parts of which reference is made in the text by letters, none of which appear in the figure. Some of these may be the fault of the printer.

The book is very well written, although the author occasionally lapses into poetical expressions. He is, perhaps, ultra-enthusiastic in favor of the use of acetylene for lighting anything or any place, but all his comparisons are made fairly and do not deal in generalities.

Very little apparatus is described, but the author says in his preface that he intends to describe only that which is most nearly correct theoretically.

The typographical work is generally good.

The book is of value to engineers and others who are interested in the installation of apparatus for the production of acetylene. It is also a useful addition to the library, for it gives a condensed and systematic form, quite a complete résumé of the chemistry and uses of acetylene.

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¹ *Am. Chem. J.*, 14, 285.