

allowing drops of a neutral oil to ascend through an aqueous soap solution, but this method was abandoned in favor of the former one, owing to uncertainty as regards the amount of hydrolysis in the soap solution. If Mr. Hillyer will refer to a recent paper by Krafft,¹ which also seems to have escaped his notice, he will find that a perfectly pure "soap" solution will *not* emulsify a neutral oil. This effect appears to occur only when the soap solution contains an excess of free alkali (or even alkaline chloride). From this it would seem that the lowering of interfacial tension and consequent emulsification are due to the production at the interface of a colloidal layer or membrane.

In conclusion, although Mr. Hillyer's paper forms an interesting contribution to an interesting subject, it is necessary to point out that neither his main conclusion nor the method by which it was obtained, is new.

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NEW BOOKS.

CHEMISTRY OF THE DYE-STUFFS. BY DR. GEORG VON GEORGIEVICS, Professor of Chemical Technology at the Imperial and Royal State Technical School at Bielitz. Translated from the second German edition by CHARLES SALTER. London: Scott, Greenwood & Co.; New York: D. Van Nostrand Co. 1903. vi + 402 pp. Price, \$4.50 net.

This book, originally designed to form a section of a text-book on the "Technology of the Textile Fibers," was afterwards modified into a separate volume, chiefly in order to render it more accessible to chemists interested in the chemistry of dye-stuffs rather than in the dyeing and cloth-printing industries. For this reason, all particulars relating to the application of the dye-stuffs are relegated to the author's companion volume—"Chemical Technology of the Textile Fibres."

The aim of the author has been to provide a text-book presenting to the student, in as lucid and condensed a form as possible, the extremely wide domain of the modern chemistry of the dye-stuffs.

¹ *Ztschr. phys. Chem.*, **35**, 371 (1902).

Care has been taken to bring into prominence all the relations known to exist between the various dyes and groups of dyes, as well as the connection between color and constitution, as the proper appreciation of these relations form the main object of the study of the chemistry of the dye-stuffs. An endeavor has also been made to clearly define the true importance attaching to the several dye-stuffs, whether theoretical, practical, or historical.

Owing to the rapid progress made in connection with the dye-stuffs since the appearance of the first edition of this book, the sections dealing with the azo dyes, the triphenylmethane dyes, the phthaleïns, and the azines have been considerably modified, while those treating of the flavones and the sulphur dyes are entirely new.

The author has had the advantage of the very valuable assistance of Dr. C. Duisberg, Director of the Farbenfabriken, formerly Friedrich Bayer & Co., of Elberfeld, in reading the manuscript of both editions.

The book is an excellent one and can be heartily recommended to those desiring to study the chemistry of the dye-stuffs. The translator has, however, omitted several features of the original and thus made the translation decidedly inferior to it. For example, in the original only the most important facts are printed in large type, detailed information being given in smaller type. This was of great advantage to the beginner, as he could omit that part of the book printed in small type and yet have a complete survey of the subject. In the translation, everything is printed in the same type, whether it is important or unimportant, and in several instances information, which in the original was contained in foot-notes, has been put into the body of the book.

Again, the table of abbreviations, contained in the original, has been left out of the translation, but the abbreviations are used. This is a very important matter, for these abbreviations are used on nearly every page of the book. How is a student to know, without being told, that the letters B. or B. A. S. F. after the name of a dye-stuff mean that that dye is made by the Badische Anilin und Soda Fabrik.

The special literature of the dye-stuffs, given at the end of the book, has also been omitted from the translation, so that, if the reader is interested in a particular group of dyes and wishes to know where the original sources of the information contained in

the book are to be found, he would have to go to the German edition of the book.

The translation contains several inexcusable mistakes. For example, on page 3 the statement is made that aniline is a dye-stuff, and on pages 52 and 53 that nitroso-compounds are formed when *sulphurous acid* is allowed to act on phenols. The German terms benzol and toluol are used throughout the book in place of benzene and toluene. On pages 62 and 63, sodium *nitrate* is used for sodium *nitrite* in diazotizing salts of primary amines.

Those who read German at all readily, will find it advantageous to purchase the German edition of the book. For those who read only English, the translation is the best book on the subject now available, notwithstanding the many errors of translation.

W. R. ORNDORFF.

LES DÉRIVÉS TARTRIQUES DU VIN. PAR LE DR. P. CARLES. Troisième Edition. Bordeaux : Feret et Fils ; Paris : Libraires Associés, Editeurs. 1903. 169 pp. Price, 4 fr. 50. Franeo poste, 4 fr. 80.

The brochure before us, in its third edition, offers the results of years of study and practice in the recovery and utilization of the tartaric products obtained from wine and its residue, and its value has been recognized by the Institut de France in the award of the Montyon prize of 2000 francs to the author. It is well worthy of the careful consideration of those interested in tartaric materials. In his valuable little work, Dr. Carles discusses the methods whereby these products are recovered and the different forms in which they are sent to the market. This is followed by thorough discussion of the analytical methods—described in detail—which are employed for the valuation of the various crude products. Generally these consist in (1) determination of the quantity of potassium bitartrate (the “actual test” of the United States), (2) the determination of the total tartaric acid present as potash and lime salts (“total test”).

The first is comparatively simple and, according to Dr. Carles as well as in the experience of the reviewer, gives accurate results. The second is complicated by the presence of various foreign substances in the crude tartars, and the method of Goldenberg, Geromont & Co., most widely employed, often gives results which,