BOOK REVIEWS

N. G. GAYLORD, Editor

Fairchild's Dictionary of Textiles. STEPHEN S. MARKS, ed. Fairchild Publications, New York, 1959. 627 pp. $25.00.

The Dictionary represents a long time effort of the Fairchild staff, under the editorial guidance of Stephen S. Marks, to provide an up-to-date and authoritative compilation of textile terminology. The 12,000 entries are a timely presentation of critically reviewed trade terms which help to clarify and simplify some of the terminology confusion that has characterized the very diverse and rapidly changing textile picture.

The major portion of the Dictionary is devoted to descriptions of textile materials in terms which can be readily understood by people in all branches of the industry. Where standardized, definitions conform to those recognized by ASTM, AATCC, the Textile Institute, and the Federal Trade Commission. Terms relating to garments, sewing, needle work, and embroidery were intentionally omitted. Definitions of textile machinery, equipment, and testing methods are limited. Man-made fiber terminology is treated briefly. Identification of the owners of the numerous Trade Marked names listed probably would have been helpful.

The Dictionary is considered to be a big step forward in the standardization of historical and current textile trade definitions, and should make an excellent reference for professional personnel in the polymer field who have need of a better understanding of the "language" of the textile industry.

J. J. Press

U. S. Navy Clothing and Textile Research Laboratory
Brooklyn, New York

Free Radicals: An Introduction, A. F. TROTMAN-DICKENSON. Wiley, New York, 1959. 142 pp. $2.50.

This short monograph deals with elementary reactions of free radicals in gas phase and in solution. It is a concise and lucidly written booklet addressed essentially to a nonspecialist. Although the reactivity of free radicals is the main topic of this exposition, few words are devoted to such problems as detection of free radicals and their structure. The author presents the elementary reactions of free radicals in a systematic way, and thus the content of the book is divided into sections such as formation of radicals, their recombination, transfer reactions, addition reactions, decomposition of radicals and their isomerization.

This reviewer feels that a more detailed elaboration of the structural problems would be beneficial, and, also, the dynamics of radical reaction could have been taken further.

Since the book is addressed to nonspecialists who would like to acquaint themselves with the chemistry of free radicals, it would have been advantageous to discuss some processes of general importance such as polymerization and oxidation, and to show how relatively small variations in the rates of elementary reactions might completely change the character and the overall kinetics of such processes.

On the whole, the book is recommended to anyone who wishes to be introduced to the dynamics of free radical chemistry.

Michael Szwarc

State University College of Forestry
Syracuse University
Syracuse, New York

Electrolyte Solutions. R. A. ROBINSON and R. H. STOKES. Academic Press, New York, 1959. xv + 559 pp. $11.50.

Those chemists who found in the first edition of "Electrolyte Solutions" both a lucid and elegant discussion of the measurement and interpretation of conductance, chemical potential, diffusion and related phenomena in electrolytic solutions will welcome this second edition. The authors have made a most thorough-going revision; hardly a page of the original edition remains intact. Pertinent, new material through 1958 has been introduced throughout the book. Some original material of historical interest has been deleted with little apparent loss. The length of the book has been increased from 508 to 552 pages, a large part being due to the enlargement of the appendix by 50 per cent.

The outline of the book is unchanged. Sections on experimental procedures have been brought up to date and sometimes expanded. The section on conductance in nonaqueous media has been expanded to include the amide solvents. Chapter II has been expanded to include, in addition to the theory of diffusion, a discussion of conductance and diffusion in relation to the viscosity in concentrated solutions. In fact, throughout this book there is particular attention paid to concentrated solutions and the different theoretical approaches to these systems.

H. P. Gregor

Department of Chemistry
Polytechnic Institute of Brooklyn
Brooklyn, New York