NEW BOOKS

edited by f w quackenbush

THE PRACTICE OF GAS CHROMATOGRAPHY, edited by L. S. Ettre and A. Zlatkis (Interscience Publishers, 591 p., 1967, $14.95).

The editors' objectives were to provide a basic practical guide to those contemplating the use of gas chromatographic methods of analysis. They attempt to bridge the gap between detailed theory and practical applications and to summarize the art of gas chromatography.

The book is organized into 10 chapters, written by 16 authors with recognized expertise in their fields. The first chapter on basic principles is an excellent introduction to more detailed chapters on mobile phases, sample preparation, columns, detectors and interpretation of results. There are more advanced chapters on digital electronic systems, reaction gas chromatography and automatic process gas chromatography. A chapter on ancillary systems introduces the advanced methods of positive identification, i.e., ultraviolet, infrared, mass spectrometry and proton magnetic resonance.

The chapter on ancillary systems may be beyond the scope of the original objectives. The chapter on columns could have been simplified and possibly more space could have been allotted to identification.

The book should be helpful to those in laboratories contemplating gas chromatographic methods of analysis. It would also make a good supplementary reference to detailed theoretical textbooks. This book should help bridge the gap between theory of gas chromatography and practice of gas chromatography.

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MOTOR FUELS: PERFORMANCE AND TESTING, by William A. Gruse (Reinhold Publishing Corp., New York, N. Y., 280 p., 1967, Price $12.00).

This is a hard-covered, cloth-bound book printed on a good grade of semigloss white paper. The subject matter is divided into ten chapters entitled "The Source and Nature of Motor Fuels," "Gasoline and Its Combustion," "Cleanliness in Gasoline Engines," "Volatility," "Liquefied Petroleum Gas as Motor Fuel," "Diesel Engine Fuels," "Diesel Engine Deposits," "Aviation Turbine Fuels," "Burning Qualities," and "Physical and Accessory Properties of Aviation Turbine Fuels, Hydrocarbon-Type Ramjet and Rocket Fuels." The book has a subject index of test methods, and is one of two companion volumes planned to cover the performance and evaluation of motor fuels and motor oils.

The subject matter accomplishes the aim set forth by its author in the preface: namely, it relates in simple and readable form useful information as to how fuels work in automative engines of today, as well as how one determines by testing whether a fuel is suitable for the service required. It also outlines whether a given fuel is better than another for the purpose used. The chapters on liquefied petroleum gas as motor fuel and aviation turbine fuels are timely because of increasing importance of these applications. All the subject matter is backed up by extensive references to the original literature.

Although the average reader of the Journal of the American Oil Chemists' Society probably would not be especially interested in its contents, since his interest lies primarily in the field of vegetable and animal oils, the book nevertheless should be in the library of all industrial, educational and commercial laboratories as a concise reference on motor fuels and motor fuel tests and evaluations.

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GUIDE TO GAS CHROMATOGRAPHY LITERATURE, Vol. 2, by Austin V. Signeur (Plenum Press Data Division, 379 p., 1967, $15).

This volume is a compilation of about 8,000 literature references to gas chromatography. In the preface the author states that it supplements and brings up-to-date his first volume by the same title which was published in 1964. Volume 2 consists of three sections; a 270-page bibliography, a 70-page author index, and a subject index of 36 pages. All three sections are printed in a very usable two-column format on pages 8½ by 11 inches in size.

References in the bibliography are listed alphabetically by senior author and the information provided includes authors, title, original literature or other reference and, where applicable, the Chemical Abstracts reference. The bibliography includes technical papers and articles which are primarily concerned with gas chromatography as a technique, as well as those in which gas chromatography was utilized merely as a tool to accomplish some other major objective. The volume includes references to papers in both well-known and rather obscure foreign and domestic journals and books as well as otherwise unpublished papers presented at symposia and meetings of various scientific societies. Articles which have appeared in literature distributed by manufacturers of instruments and other supplies have also been included. The most valuable aspect of this work seems to be the completeness of coverage and the inclusion of many reports not normally covered by the usual abstracting services.

The period of time actually covered by the references in Volume 2 predates publication of the first volume and it appears to extend in rather complete form to the summer of 1965. A check of the first several hundred references indicated that about 85% of the papers were presented or published in the years 1963 through 1965, the bulk having appeared in 1964. Most of the remaining 15% were dated prior to 1963, although an occasional reference to 1966 was also found. Although timeliness does not appear to be the strong point of this volume, use of both volumes of this work together with Chemical Abstracts dating from 1965 would cover the field quite well for most investigators and would provide a useful and time-saving key to the literature.

The type of compilation presented in this volume is of maximum usefulness only if the indices are adequate. The reviewer found the author index to be complete; however, the subject index was a disappointment in some respects. Papers familiar to the reviewer were usually found listed under only one of several possible subject headings. The subject index is useful in that there ap-

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pears to be at least one reference listed for almost any conceivable topic, but a rapid, exhaustive search for the literature for reports concerned with a particular subject would probably not be possible by use of these volumes alone. Perhaps a complete listing of papers under all related topics would have been a physical impossibility, but the reviewer found this inadequacy to be the most serious shortcoming of the volume.

A laboratory investigator who uses gas chromatography for purposes other than very routine analyses would probably find this volume a useful addition to his own collection of reference books, particularly if the first volume is on hand or is acquired with the current volume. A good library supporting several investigators who frequently use gas chromatography should find this work a welcome addition.

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A HANDBOOK OF LABORATORY SOLUTIONS by M. H. Gabb and W. E. Latchem, edited by Philip Kogan (Chemical Publishing Co., Inc., New York, 116, p., 1968, $6.50).

This is the first American edition of a handbook published in 1967 by Andre Deutsch Ltd. The table of contents presents 11 chapters plus an appendix. Some thumbing back and forth is required between chapters but the basic grouping is fairly clear.

The reader's attention is quickly drawn to the use of terms which are unfamiliar in the United States. There is of course the recognizable interchange of spelling, e.g., litre for liter, and the placing of decimal points up off line. Reference is made to analytical reagents (A. R.) using "AnalaR" or Pronalys."

The chapter on indicators covers 14 pages, includes many tables, and appears excellent. The appendix carries a table of tolerances on glassware which contains several discrepancies from the commonly accepted standards of our Class A accuracy or Class B accuracy.

The authors state, "The purpose of this book is to provide a concise and handy reference guide to the numerous 'recipes' for the making up of chemical solutions used in laboratories." They fairly well achieve their purpose and present materials gathered into one short volume that might be found partially in books such as *Practical Physiological Chemistry* by Hawk, Oser and Summerson or more completely in the current *Pharmacopeia of the United States*. They also present a very brief listing of basic definitions for chemical terms. This book might be of value where a large variety of solutions is required as it provides a quick survey of the field for making them.

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• *New Products*

NEW CYANATEX SOFTENER HP, combines the best properties of most softening agents for textiles, according to the April 1968 issue of "Dye-Chemlines." It is economical, disperses in cold water, is nonionic and therefore compatible in most finishing baths. It softens fabric as well as a pure finish or with other finishing products. When used with soil-release agents, it frequently improves anti-soil redeposition properties. (American Cyanamid Company, Dyes and Textile Chemicals Department, Bound Brook, N. J.)

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• Detergents

DEODORANT EFFICACY OF TOILET BARS. H. A. Whitehouse and O. Carter (Procter & Gamble Co.). *Soap Chem. Specialities* 44(2), 64–8, 75–6, 102–4 (1968). A practical and realistic procedure for evaluating the deodorant effectiveness of toilet bars is described, which is based on direct quantitative assessment of the intensity of axillary odor by a panel of trained judges. The technique is capable of a relatively high degree of discrimination and reproducibility and can be adapted to a variety of problems relating to the development of axillary odor and its control. Examples are given to illustrate some of the kinds of investigations in which this basic procedure has been applied.

NEW METHODS FOR THE PRODUCTION OF FATTY ACIDS AND GLYCERINE FROM TALLOW. A. Gianazza (Gianazza S.p.A., Legnano, Italy). *Riv. Ital. Sostanze Grasse* 44, 471–4 (1967). A survey is offered of the technological improvements introduced in recent years for the purpose of obtaining tallow fatty acids destined for soap-making and glycerine for various industrial uses.

TECHNICAL AND ECONOMICAL CRITERIA FOR SELECTING TALLOW AND TALLOW FATTY ACID QUALITY FOR USE IN SOAP-MAKING. L. J. Monticelli (G. Mazzoni S.p.A., Busto Arsizio, Italy). *Riv. Ital. Sostanze Grasse* 44, 475–82 (1967). A review is given of technical and economical factors affecting the selection of tallow and saponifying equipment in the context of competitive modern soap-making practices.

ENVIRONMENTAL DISINFECTANT CLEANERS. L. S. Stuart (U.S. Dept. of Agr.). *Soap Chem. Specialties* 44(2), 88–95, 189–91 (1968). The formulation criteria for disinfectant cleaners are reviewed.

CONTINUOUS PROCESS FOR PRODUCING DETERGENT GRADE ALCOHOLS AND GLYCERINE. S. C. Schuman and R. H. Wolk (Hydrocarbons Res., Inc.). *U.S. 3,363,009*. A process for converting inedible tallow to a mixture of fatty alcohols having