

BOOK REVIEW

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A Review of "The Practice of Gas Chromatography"

REFERENCE: Rowland, F. W., *The Practice of Gas Chromatography*, Hewlett-Packard, 1973, 119 pages, H. P. No. 5950-8225, \$10.00.

The author's intention is briefly stated in the preface of this short, useful book.

There is a broad area of chromatography between the hardware-oriented instrument manuals and the theoretical treatment found in many of the existing books. This is "The Practice of Gas Chromatography," and is where the working chromatographer spends most of his time . . . A good deal of the art of chromatography, the tricks of the trade that come with experience but are seldom written down, is included . . . There is very little theory in these pages . . .

Thus, the author's plan is to provide a practical introduction to gas chromatography for the person who is not acquainted with these procedures. He has succeeded in presenting in a clear and concise manner a guide to the techniques which are essential to the beginner, as well as helpful to the not-yet-expert analyst who desires to expand his expertise to include mastery of the art of gas chromatographic analysis. The book is divided into seven chapters: fundamentals of gas chromatography, sample injection, column technology, detectors, qualitative analysis, quantitative analysis, and parameters. There is no table of contents, index, nor compilation of literature; however, there are numerous up-to-date references to books and compendia throughout the text.

The longest and most successful chapter is the one on column technology. It contains detailed discussions of materials of column construction, size, column preparation, measurement of column performance, and selection of a stationary phase. The beginner can easily use this chapter as a laboratory guide. The intermediate chromatographer will benefit by the precise definition of problem areas, from the many practical hints on procedures of a sort only gained after much experience, and from well-placed warnings in the form of precautionary notes highlighting covert harmful or inferior procedures. A particularly good feature is a discussion of the use of the McReynolds constants in the selection of a liquid phase which would optimize a specific analytical application.

The plastic spiral binding format is functional, permitting the book to lie flat, with the wide margins inviting the addition of individual notes. The tables and illustrations are direct, clear, and easily understood. The examples used to demonstrate the principles are well chosen, and the results are convincing. The type is large and pleasing to read. No typographical errors were noted. Commendably, the author evinces a complete lack of bias for his company's products in the text.

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This concise book is recommended as a textbook for novices and as a study guide for seminars; however, analysts active in the field of gas chromatography, including toxicologists and criminalists, will find it useful as a quick and ready review of practical laboratory procedure, and nontechnical administrators, planners, and budget supervisors who do not intend to become laboratory analysts will find it a source of special information about gas chromatographic analysis systems, as well as an insight as to why their chromatographers toil as they do.

In summary, this book ably presents the *how* of gas chromatography, but not the *why*.