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Book Review

Gaschromatographie, by G. Schomburg, Verlag Chemie, Weinheim, 1977, X + 188 pp., 62 figs., 7 tables, price DM 22.00, ISBN 3-527-21048-2.

This attractively finished handbook is directed at students and practicing scientists in research and industry who wish to familiarise themselves with gas chromatography (GC). Its objective is to acquaint the reader rapidly with the everyday use of this method and to convey the basic technical and procedural skills needed for its application.

The book is structured according to the above objectives: After a brief introduction, there is a discussion of the gas chromatogram, particularly the time coordinate (retention, number of theoretical plates, resolution) and the intensity coordinate (detector signal, response factors). This is followed by a comprehensive chapter on the technique of chromatographic separations, with a section on the qualitative and quantitative problems concerning apparatus and their solutions. The chapter provides many practical hints and deals with theoretical matters only to the extent necessary. A valuable chapter on the detection and avoidance of faults, together with instructions for six practical exercises, facilitates familiarisation with the practical work.

The reader is given detailed information on the relationship between GC retention and the structure of chemical compounds. Problems of quantitative analysis are discussed according to their practical importance. On the other hand, the selection of correct experimental conditions (column length and diameter, particle size, loading, and upper and lower temperature limits of the stationary liquids) could have been presented in even greater detail for the benefit of beginners. A series of symbols for components of GC equipment, newly introduced by the author, deserves particular mention. We hope that these graphically clear and easily understandable figures will become widely accepted.

The author has written a carefully conceived and easily intelligible book to serve as an introduction to GC analysis; due to the abundance of practical hints, it will prove a valuable source of information not only for the beginner but also for senior laboratory staff.

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