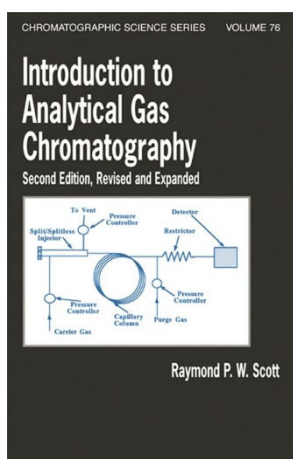


RAYMOND P. W. SCOTT: INTRODUCTION TO ANALYTICAL GAS CHROMATOGRAPHY, 2ND ED.

BOOKS AND SOFTWARE IN REVIEW

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Bibliography

Introduction to analytical gas chromatography, 2nd ed.

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Raymond P. W. Scott

CRC Press

ISBN: 978-0-824-70016-4

Hardback, 416 pages, November 24, 1997, £130.00

Book's topic

This book describes the basic of gas chromatography (GC). It provides a clear and detailed explanation of the separation theory and of qualitative and quantitative analysis. Furthermore, it covers the basic aspects of the earlier instruments in the field, covering also the column technology and the most common detectors in a concise and clear manner. A brief overview of sample preparation techniques and GC application fields is also reported.

Contents

The book consists of 11 chapters providing an overview of the theoretical aspect of the technique and the different fields of application. Chapter 1 gives an introduction to GC, including the early history of the technique and basic concepts. Chapters 2 and 3 discuss in detail the theory of GC, exploring the mechanism of retention and all the parameters that determine the peak dispersion in the system. Chapters 4–6 described the characteristics of the columns, instrumentations, and detectors in a very clear and concise manner. Chapter 7 describes the most common sample preparation techniques for GC analysis. Chapter 8 described the earlier development in thermal and flow programming with interesting insight and explanation to common practices. Chapters 9 and 10 discuss qualitative and quantitative analysis. Finally, Chapter 11 reports an overview of the GC applications.

Comparison with the existing literature

This book provides a valuable overview of GC and a detailed explanation of its theory. It is a complement to other more update publications, starting from the more recent book by the same author, R.P.W. Scott (*Gas chromatography*, Chrom-Ed Book Series, 2012) concise but comprehensive, as well as *Basic gas chromatography* by H.M. Mc Nair and J.M. Miller (Wiley, 2009), *Modern practice of gas chromatography* by R.L. Grob and E.F. Barry (Wiley–Interscience, 2004), *Gas chromatography* by Colin Poole (Elsevier, 2012), and *Handbook of GC-MS: fundamentals and applications* by Hans-Joachim Hübschmann (Wiley, 2015).

Critical assessment

This book dates back to 1998; therefore, it is obviously out-of-date regarding the GC technology and the detector developments. However, it provides a very interesting insight into the earlier development of the technique and a very clear explanation of the underlying theory. The early technical aspects related to instrument, detector, and column technologies are well covered and can be of great support to better understand the current developments in the field.

Readership recommendation

The book is addressed to scientists and PhD students involved at any level in GC analysis. It provides a complete and detailed overview of all the physical-chemical concept behind this technique and a clear overview. Definitely, this book should be a must for lovers of GC since it provides interesting insights into the earlier development of the technique, which actually can be applied to modern instruments to avoid trivial mistakes.

Summary

Introduction to analytical gas chromatography is an interesting fundamental book that covers the earlier aspect of GC development. Although dated, it remains a milestone for the passionate in the field. Furthermore, the underlying fundamental theory of GC, which is unchanged, is discussed clearly and concisely.