

Contemporary Practice of Chromatography. By C. F. Poole and S. A. Schuette. Elsevier Science Publishers, Amsterdam, 1984. x + 708 pp. Price: Dfl. 159.00.

Chromatography, in all its forms, has undoubtedly made an enormous contribution to the range of analytical techniques available for the determination of both macro- and microconstituents in many areas of science. The importance of this subject is reflected in the wide range of publications available on the various techniques and their application in selected disciplines. However, it is debatable whether the scientific basis of the subject has received due attention both in university courses and in training programmes for those in employment. This book attempts to provide a means for this by studying the major chromatographic techniques, HPLC, GLC and TLC, in a single volume. It is a formidable task and the present reviewer is not convinced that it has been successfully accomplished, or indeed that the area is not already sufficiently well documented. The prospective purchaser would be well advised to browse at leisure before deciding.

Chapter 1 deals with the fundamentals of the chromatographic process in a very straightforward manner and the theoretician will have to look elsewhere for mathematical details of the processes, something which is not relevant in a book such as this. The major substance of the book comes in the next two pairs of chapters covering, first, gas chromatography (columns and then instruments) and then high performance liquid chromatography, in a similar manner. Here again, the material is very conventionally presented and there is little evidence of originality, although in fairness it is difficult to see how a new approach could be adopted for this subject area which has been worked so hard. Some excellent points are emphasised, for example adequate column testing or care with toxic solvents, but the majority of the material can be readily found in existing texts. This section is followed by a short chapter on preparative-scale chromatography, covering both gas and liquid techniques, although with only passing reference to preparative TLC.

Chapter 7, on sample preparation, is by far the most useful part of the entire book and there is a strong argument that the authors should have concentrated on this area as the subject matter for the entire text. This is a very complex and important subject that could well have been sub-divided into a number of chapters. At a length of 136 pages, this could be one of the longest chapters published. The title of Chapter 8, 'Hyphenated

Methods for Identification after Chromatographic Separation', epitomises the current trend to complicate everything by using jargon, but despite this it does contain some useful information on chromatographic techniques *coupled* to other instrumental methods, for example HPLC or GLC and mass spectrometry. The final chapter covers high performance TLC, or HPTLC, which could also be described as TLC with small particle stationary phases.

The writing of this book must have been a mammoth task and not one that the present reviewer would wish to contemplate; but was it worth the effort? This text certainly does bring together the various chromatographic techniques in a single volume, yet it seems to fail to 'compare and contrast' them for particular areas of analysis. The topics are discussed in separate chapters and they might just as well be in separate books. At the end of the book is the reader any wiser as to whether he/she should use HPLC or GLC for sugar analyses? I think not. The book will probably sell quite well to those people whose book shelves are barren of the very many well established texts on the individual chromatographic techniques, but I feel for others there is little novel material to justify its purchase (with the exception of Chapter 7).

The general standard of presentation is good and the extent of referencing excellent, again especially in Chapter 7. The appearance of the text would have been improved by justified right hand margins. In conclusion, it is a comprehensive text on a complex and important topic, but only the sales figures will tell if it fulfils a need.

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