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Book Review

Practical Problem Solving in HPLC
Stavros Kromidas; Wiley-VCH, Weinheim, 2000, xv + 178 pages, ISBN 3-527-29842-8 (£29.95)

This book would be extremely useful for the novice chromatographer as a practical HPLC manual to supplement more theoretical texts. It would also be excellent for the more experienced operator concerned with fault diagnosis, method development and optimisation.

The introduction is extremely useful for a novice, it contains a brief outline of a HPLC system, a checklist of functions to be done before a run commences, tips to enable good performance, a glossary of the most commonly used abbreviations, symbols and formulae.

The book then divides into five further chapters: 2. Simple tests and decision criteria; 3. Problems and their solutions; 4. Tips to optimise separation; 5. Retention of ionizable components in reverse phase HPLC and 6. Appendix.

A question and answer mode is adopted within the chapters, with the emphasis on practical solutions to observed problems. For example, what can be the reason for a change in retention times? The book lists the parameters that could be responsible for the occurrence. How to diagnose which parameter is responsible is explained, and the measures needed to either correct or prevent the problem are discussed in a way which can be easily applied.

The appendix contains useful chromatographic data such as UV absorption bands and molar extinction coefficients of some common chromophores, also a discussion linking the present practice of HPLC and trends indicating areas of future development.

This book is a good reference source for HPLC laboratory practice, for operators both novice and expert. It is written in an approachable manner, illustrated with clear tables and worked examples, which should enable a novice to achieve good results and an experienced operator to become more efficient.

John F. Kennedy*
Lorraine A. Quinton
Chembiotech Laboratories,
Institute of Research & Development,
University of Birmingham Research Park,
Vincent Drive,
Birmingham B15 2SQ, UK
E-mail address: jfk@chembiotech.co.uk

* Corresponding author. Tel: +44-121-414-7029; fax: +44-121-414-7030.

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