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Book Review

High-performance liquid chromatography, by S. Lindsay, Wiley, Chichester, 2nd ed., 1992, XXII + 337 pp., price £ 17.50 (paperback), £ 39.95 (hardcover), ISBN 0-471-93115-2 (paperback); 0-471-93180-2 (hardcover).

This book is a volume in the ACOL series Analytical Chemistry by Open Learning, a project of Thames Polytechnic in London. The texts in this series are intended to be used by students and others who want to learn not only by reading a text but also by answering questions which are presented throughout the book. There is open space which allows the answers to be noted down directly in the book. The correct and detailed answers are presented at the end of each chapter. Approximately one third of the total pages are used for questions (nicely presented in grey boxes), empty space and answers. This may seem to be a high percentage, but in fact the problems themselves present a lot of very instructive material which could not be dealt with in the preceding text. It is also very helpful that the reader is told what he or she should know now by the presentation of "learning objectives", often followed by a number of references which give a deeper insight into a special topic.

The first edition of this high-performance liquid chromatography (HPLC) text was published in 1987. That edition was not really satisfactory because it was too short and many important topics were not mentioned at all. This second edition is an almost new text which can be fully recommended, although it does not replace a good textbook on HPLC (as no ACOL book is intended to be used without background information). The individual chapters are: (1) Introduction; (2) Retention and

peak dispersion; (3) Solvent delivery and sample injection; (4) Columns; (5) Detectors; (6) The mobile phase; (7) Column packings and modes of HPLC; (8) Method development; (9) Some practical aspects of HPLC; and (10) Some additional topics. Perhaps the theoretical background of the method has been dealt with too briefly; Chapter 2 is only 14 pages long, excluding the pages used for questions and answers. Some figures are too schematic, but there are also many very instructive chromatograms. The reviewer was especially impressed by the clear and detailed sections about the diode-array detector, electrochemical detectors, mobile phase optimization and method development. The "practical aspects" presented in Chapter 9 relate to column packing and testing, mobile phase preparation and some practical procedures with columns and samples. Chapter 10 brings the book to a good completion with sections on small-bore columns, fast LC, separation of enantiomers, flash chromatography, preparative HPLC, supercritical fluid chromatography (too short with less than a page) and LC-mass spectrometry. Very helpful are some tables with units of measurement and the index.

As an ACOL text the book is intended for individual use, and those who work through it will benefit enormously.

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