

The updated chapters are generally adequate for the purpose, but strong exception must be taken to the claim that no significant advances in TLC have taken place since the first volume. In seven years? We need consider only the recent instrumentation introduced for both quantitative and multiple-development applications to turn back such an argument. Has familiarity bred contempt?

Two new chapters deal with radioimmunoassays and mass spectrometry. Both techniques have had an explosive growth in clinical applications and the inclusion of those topics is clearly necessary. Neither, however, appear in the drug monographs. Because of the limited number of drugs for which radioimmunoassay is in general use, treatment within the background chapter is preferred, but the lack of further mass spectral data is puzzling. Both new chapters are strongly practical rather than theoretical in presentation and this is desirable for the intended audience.

One notable development in drug analysis has been ignored and that is high-pressure liquid chromatography. Sufficient data are available, and at least a general chapter could have been expected at this time.

In recommending heartily the supplementing of a copy of Clarke 1 with this new Clarke 2, it is however time to take stock of the broader situation. Drug analysis and identification currently have available several important compilations—Macek on TLC, Sunshine's editing of analytical toxicology data, the recent Zweig and Sherma handbooks of chromatography, Stahl's compilations—all of which compile data in other than monograph style, but nevertheless, the data are readily retrievable. Viewed against these more detailed compilations, Clarke's volumes sometime suffer in the competition. The hardest blow is delivered when these monographs are compared for content with *Analytical Profiles of Drug Substances*, Volumes 1-4, K. Florey, Ed., which is becoming the primary nonofficial work in drug analysis (but as yet covers but a minority of drugs and not all manufacturers). This is not to say that Clarke 1 and 2 do not fulfill an important function, and well, but rather that the working analyst has the joy of being able to resort to more than one leading source for data before plunging into the primary literature for the late news.

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**Applications of High-Speed Liquid Chromatography.** By N. DONE, J. H. KNOW, and J. LOHEAC. Wiley, 605 Third Avenue, New York, NY 10016, 1975. 238 pp. 16 × 24 cm. Price \$19.95.

As with any emerging analytical technology, there have been a sizable number of books published in the area of high-speed liquid chromatography (HSLC). All too often these first volumes provide much in the way of theory and generalized approaches to problems but little practical information that can be helpful to the research scientist with a specific problem to solve. Happily these authors have achieved a balance between theory and practice.

In the first part of the book the authors talk of HSLC theory, equipment, and principles. The discussion is neither too simple nor too detailed and serves as a good refresher to the scientist who has had a more intense orientation in the not too distant past. While much could be done to improve the content, such changes would necessitate depth which is beyond the scope of the book.

Part two provides a listing of approximately 150 chromatograms and related chromatographic data compiled from the literature for the period 1969-1973. Although significant numbers of the chromatograms deal with the typical hydrocarbon separations so often presented in the sales literature for commercial instruments, a good percentage of these chromatograms can be useful to an individual interested in pharmaceuticals and related compounds. Each chromatogram is well presented and includes most pertinent data needed to reproduce the chromatogram which is also given. Each also contains the direct literature reference for further detailed information.

Overall, the volume seems to achieve its objectives. There are a few comments that must be mentioned by way of criticism. First is the basic fact that the field of HSLC is moving so very rapidly that, by the time the book was received for review, so much had evolved in the field that the contents of the volume seemed somewhat dated. This is particularly noticeable in the second part of the book when one compares separations reported there with more recent publications using small particle columns. Finally, the value of the book must be weighed against the price charged by the publisher. Although the book is well done, the price of \$19.95 seems excessive considering the somewhat dated nature of the contents.

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