Table I—Comparison between Shake-Flask and Filter Probe Methods for Determining Partition Coefficients between Oil [a] and Water [b]

Solute	Log Partition Coefficients (Molar Scale) at 25° (*SD*)			
	Shake-Flask		Filter Probe	
o-Chloroaniline	0.983	(0.012)	0.978	(0.021)
p-Chloroaniline	0.462	(0.012)	0.462	(0.019)
Methyl Benzoate	1.77	(0.046)	1.78	(0.056)
p-Nitrotoluene	1.97	(0.030)	1.92	(0.060)
p-Cresol	−0.395	(0.025)	−0.379	(0.019)

[a] 2,2,4-Trimethylpentane.
[b] Phosphate buffer pH 7.

for the examination of various environmental variables on the partitioning process.

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Received August 21, 1981.
Accepted for publication January 21, 1982.
The filter-probe extractor was machined by H. van Ijzendoorn, and J. F. M. Kinkel, H. Wijnne, and P. Smit were involved in using and developing the total procedure.

BOOKS

Applied Pharmacokinetics: Principles of Therapeutic Drug Monitoring. Edited by WILLIAM E. EVANS, JEROME J. SCHENTAG, and WILLIAM J. JUSKO. Applied Therapeutics, P.O. Box 31-747, San Francisco, CA 94131. 1980. 708 pp. 15 × 23 cm. Price $34.00.

As noted in the preface, this text is intended as a "source of the objective criteria and systematic approaches necessary for rational application of pharmacokinetics in clinical practice." The editors and authors have achieved that goal admirably. The text is primarily a compilation of information on specific drugs amenable to therapeutic monitoring and for which there is sufficient literature to permit a critical review. A particularly attractive approach is the inclusion of "counterpoint" discussions which accompany several chapters. These are intended to present another author's perspective when a consensus of opinion did not exist on that topic.

An introductory chapter is followed by a discussion (and a counterpoint presentation) of clinical pharmacokinetic consultation services and three chapters dealing with pharmacokinetics in renal and liver disease and in neonates. The remaining chapters are devoted to specific drugs and include: theophylline, aminoglycosides, cephalosporins, phenytoin, digoxin, lidocaine, procainamide, quinidine, propranolol, salicylates, methotrexate, tricyclic antidepressants, lithium, and heparin. Counterpoint discussions accompany the sections on theophylline, aminoglycosides, phenytoin, and lidocaine. The final chapter is concerned with guidelines for collection and the pharmacokinetic analysis of data.

Each chapter dealing with a specific drug contains the following major topics: introduction/background, absorption, distribution, elimination, concentration *versus* response and toxicity, clinical application of pharmacokinetic data, assay methods, and summary. Adhering to a common format enhances the readability of the text and permits the reader easy access to specific desired information. The chapters are concise, written well, and are replete with summary tables and figures. Each chapter has a substantial reference list and literature citations are current.

This book is unquestionably the best text of this type currently available. The editors by necessity have assumed a basic understanding in pharmacokinetics and as a result there are few expositions on fundamental principles and relatively few equations are employed. The reviewer believes this to be an advantage of the text.

A difficulty with publishing a compilation of this type is the fact that much of the material will become rapidly dated as a result of the literature explosion in the area of clinical pharmacokinetics. The editors are certainly aware of this and mention in the preface that this is the first edition. One presumes that others will follow. In subsequent revisions, the editors are encouraged to employ the approach for compiling clinical pharmacokinetic data as suggested by Sheiner *et al.* [*J. Pharmacokinet. Biopharm.*, **9**, 59 (1981)]. The text might also benefit from a table of symbols to be used uniformly throughout (and with common units, if possible).

The reviewer has no hesitation in recommending this text to pharmacy and medical practitioners who are involved in drug therapy and who are interested in improving theory. Pharmacy students in advanced courses, all Pharm.D. students, and clinical pharmacology fellows should consider this a most useful text.

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0022-3549/82/0500-0604$01.00/0