expected value. (If the analysis is restricted to hydrocarbons that melt at or below 150, the observed slopes are 13.96 for Eq. 2 and 15.40 for Eq. 3.)

Thus, it appears that Eq. 2 is more meaningful than Eq. 3 for quantitating the effects of solute crystallinity on solubility. This finding implies that the value of ΔC_p for the polycyclic aromatic hydrocarbons is closer to zero than it is to ΔS_f. These results are in agreement with the results obtained for the aqueous solubility of a large number of organic nonelectrolytes of widely varying structure (1).

(1) S. H. Yalkowsky and S. C. Valvani, *J. Pharm. Sci.*, **69,** 912 (1980).

(2) S. H. Yalkowsky, G. L. Flynn, and T. G. Slunick, *ibid.*, **61,** 852 (1972).

(3) S. H. Yalkowsky and S. C. Valvani, *J. Chem. Eng. Data*, **24,** 127 (1979).

(4) S. H. Yalkowsky, R. J. Orr, and S. C. Valvani, *IEC Fundam.*, **18,** 351 (1979).

(5) A. Martin, J. Newberger, and A. Adjei, *J. Pharm. Sci.*, **69,** 487 (1980).

(6) J. H. Hildebrand, J. M. Prausnitz, and R. L. Scott, "Regular and Related Solutions," Van Nostrand Reinhold, New York, N.Y., 1970, p. 22.

(7) E. McLaughlin and H. A. Zainal, *J. Chem. Soc.*, **1959,** 863.

(8) F. Casellato, C. Vecchi, A. Grielli, and B. Casu, *Thermochim. Acta*, **6,** 361 (1973).

(9) R. D. Wauchope and F. W. Getzen, *J. Chem. Eng. Data*, **17,** 38 (1972).

(10) A. R. Ubbelohde, "The Molten State of Matter," Wiley, New York, N.Y., 1978, p. 148.

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BOOKS

REVIEWS

Analytical Profiles of Drug Substances, Vol. 9. Edited by KLAUS FLOREY. Academic, 111 Fifth Ave., New York, NY 10003. 1980. 618 pp. 15 × 23 cm.

This book is the ninth in a continuing series that covers the analytical aspects of specific drug entities. It was compiled under the auspices of the Pharmaceutical Analysis and Control Section of the Academy of Pharmaceutical Sciences. The individual profiles or monographs are much more complete than those found in the compendia. The information in the *Analytical Profiles* series not only includes compendial tests but also important supplemental information including synthesis, additional physical properties, data on stability, absorption, metabolism, and excretion, and various analytical methods. In general, each profile is a literature review, but IR, mass spectrometric, UV, and NMR spectra are reproduced along with appropriate crystallographic data. The coverage of the quantitative analytical procedures is usually very complete and includes dosage forms, biological fluids, foodstuffs where appropriate, and related information.

Volume 9 includes 19 new monographs: bacitracin, bretylium tosylate, carbamazepine, cefaclor, cefamandole nafate, cyproheptadine, dibenzepine hydrochloride, digoxin, doxorubicin, fluphenazine decanoate, gentamicin sulfate, haloperidol, khellin, lorazepam, methoxsalen, nadolol, nitrazepam, nitroglycerin, and trifluoperazine hydrochloride. In addition, the *Addendum* contains monographs for griseofulvin and methadone hydrochloride.

While praising *Analytical Profiles* in general, and Volume 9 in particular, this reviewer believes it is time for the editorial board to define more carefully what they want *Analytical Profiles* to become. Some of the drugs covered in Volume 9 are relatively new entities. Others, such as bacitracin, digoxin, haloperidol, khellin, and nitroglycerin, could be called classics. One would have thought that these drugs would have been covered years ago. It is not clear from reading the two monographs on griseofulvin and methadone hydrochloride in the *Addendum* what has been added. Furthermore, a review of the bibliography for griseofulvin shows 18 of 29 references published prior to 1969, six prior to 1974, four prior to 1979, and one unpublished paper authored by the individuals who wrote the monograph. Griseofulvin also appeared in Volume 8 of *Analytical Profiles*. What new information appears that was not published a year ago? This question is not answered. The other drug published in the *Addendum*, methadone hydrochloride, first appeared in Volumes 3 and 4 and probably is in need of updating. But, again, the updated information is not specified. Indeed, this monograph does not even reference the previous material found in Volumes 3 and 4.

The two drugs covered in the *Addendum* brings up another point. There does not seem to be a systematic plan to update the older monographs. With the rapid changes occurring in analytical methodology and instrumentation, such a plan seems to be imperative.

Nevertheless, this series meets a real need by bringing together a concise literature review of the analytical description of important drug entities. Volume 9 is no exception. Its purchase is recommended highly for appropriate libraries, workers in pharmaceutical analysis, and teachers of pharmaceutical chemistry who want to maintain excellent personal libraries.

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Clinical Pharmacokinetics: Concepts and Applications. By MALCOLM ROWLAND and THOMAS N. TOZER. Lea & Febiger, 600 Washington Square, Philadelphia, PA 19106. 1980. 331 pp. 17 × 25 cm. Price U.S. $29.50 (Canada $35.50).

This book is an important contribution that will facilitate teaching a clinically relevant introductory course in pharmacokinetics. The goal of the authors was to fill a void which, in their own words, "has been the lack of a book that teaches the application of pharmacokinetics in drug therapy" to students, practitioners, and researchers. They are to be congratulated for achieving their goal.

The book is divided into four sections: Concepts, Disposition and Absorption Kinetics, Therapeutic Regimens, and Individualization. Each section is well supported with literature data and computer simulations. Chapters 5, 6, and 11 present a detailed, yet readable, description of clearance concepts (*i.e.*, the factors that determine steady-state plasma concentration). In contrast to most books written in the area of pharmacokinetics, college calculus is not needed to appreciate the textual material. Indeed, the authors remove much of the "mathematical fog" that has shrouded pharmacokinetics.

Several minor limitations to the text should be listed. Nonlinear kinetics is discussed quite briefly; *i.e.*, after reading the text, it is likely that