tation of cibenzoline in clinical plasma samples and shown to be specific for the drug in human plasma.

(1) B. F. Erlanger, F. Borek, S. M. Beiser, and S. Lieberman, *J. Biol. Chem.*, **234**, 1090 (1959).

(2) R. Dixon and E. Cohen, *Clin. Chem.*, **22**, 1746 (1976).

(3) M. L. Jaffe, P. J. Munson, and D. Rodbard, "Four Parameter Logistic Curve-Fitting Program for the TI-59 Calculator," National Institute of Child Health, National Institutes of Health, Bethesda, MD 20014.

(4) M. R. Hackman, T. L. Lee, and M. Brooks, *J. Chromatogr.*, in press.

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BOOKS

Pharmaceutics and Pharmacy Practice. Edited by GILBERT S. BANKER and ROBERT K. CHALMERS. Lippincott, East Washington Square, Philadelphia, PA 19105. 1981, 421 pp. 18 × 25 cm. Price $27.50.

Pharmaceutics and Pharmacy Practice, for the most part, is well written, with each chapter containing much good information, with 23 authors contributing some interesting chapters.

The preface states that the book represents a new approach by interrelating pharmaceutical and clinical pharmacy knowledge about drugs and their delivery systems; however, it contains a standard chapter on physical–chemical principles and another on basic biopharmaceutics. Since the later chapters on drug-delivery systems (oral, topical, parenteral, *etc.*) relate appropriate physical–chemical and biopharmaceutics to their specific subjects, there would be no loss if the physical–chemical chapter were deleted. The chapter on biopharmaceutics could be shortened, except for the portion relative to proper interpretation of blood level curves and evaluation of bioequivalence, which could have been expanded.

The chapter, "Drug Development and Quality Evaluation," would benefit from an expansion of the discussion of selection of multisource drug products and a condensation of federal drug regulatory matters. Similarly, the chapter, "Patient Factors that Influence Dosage Form Selection," should have been edited to remove dosage, patient acceptance (also covered in "Oral Drug-Delivery Systems") and biopharmaceutic matters, while the chapter, on patient education could have been expanded in order to more closely approach the interrelation of knowledge. The style of the chapter on literature resources appears to be better suited to a work book and is repetitious.

The last six chapters are gems. Each one contains relevant anatomy and physiology, routes of drug delivery, drug-delivery systems (dosage forms), and therapeutic considerations. They also contain appropriate physical–chemical considerations and biopharmaceutical aspects. In this manner are covered the drug-delivery systems for oral, parenteral, topical (skin), topical (eye, ear, nose), inhalation, and rectal, vaginal, and urethral administration. A few considerations of extemporaneous preparation of delivery systems are to be found in all of these chapters.

While the book is described as being intended for adult professionals, the preface refers to the book's predecessor as being *Prescription Pharmacy*, which would indicate that one concern would be the dispensing function (the pharmacy practice of the title). Noticeably lacking is any information about processing the prescription, maintenance of prescription files or records, legal aspects of dispensing controlled substances, hospital pharmacy, or the use of computers in pharmacy. While the chapter on parenteral drug-delivery systems contains good material on TPN and electrolyte therapy, no mention is made of aseptic methods appropriate for making intravenous admixtures, *etc.* Thus, the book appears to be written from the aspect of pharmaceutical technology rather than pharmacy practice.

Although the editors were only partly successful in their attempt to interrelate pharmaceutical and clinical pharmacy to pharmacy practice, this book contains much excellent information presented in a highly readable manner.

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Analytical Profiles of Drug Substances, Vol. 10. Edited by KLAUS FLOREY, *et al.* Academic, 111 Fifth Ave., New York, NY 10003. 1981. 735 pp. 14 × 23 cm.

Analytical Profiles of Drug Substances, Vol. 10 continues the successful series of complete monographs for important drug substances. This series is compiled under the auspices of the Pharmaceutical Analysis and Control Section of the Academy of Pharmaceutical Sciences. Volume 10 contains monographs on aminosalicylic acid, azathioprine, benzyl benzoate, clindamycin hydrochloride, codeine phosphate, colchicine, cyanocobalamin, emetine hydrochloride, glibenclamide, heroin, hydrochlorothiazide, ketoprofen, methylphenidate hydrochloride, nabilone, natamycin, oxytocin, penicillamine, probenecid, salbutamol, succinylcholine chloride, and trioxsalen. There also are *errata* for cefamandole nafate, fluphenazine decanoate, gentamicin sulfate, and nadolol.

The typical monograph contains the following information: First, there is an initial description including nomenclature, formula, and other physical descriptions followed by a physical properties section which usually covers crystal properties, melting point characteristics, solubility, and spectral properties including reproductions of IR, UV, NMR, and mass spectra. Usually there is a discussion on the drug's synthesis or biosynthesis followed by the drug's metabolism. The monographs usually conclude with a literature review of different methods for analyzing the drug.

There is no question that this series fills a need. The surprising fact is, that after nine previous volumes, the editors still have not developed a standard format for the monographs. Here are some examples of inconsistencies. The Chemical Abstracts Service (CAS) Registry Number is given in 11 of the 21 monographs. When present, it may be in Section 1.1 1, 1.23, 1.2.3, 2.1, 1.2.1, 1.12, or 1.14. Wiswesser Line Notation is present in five of the monographs, and the elemental composition will be found in only eight monographs. Six of the monographs open with one or more introductory paragraphs containing information on the drug's history and use. When this is present, the nomenclature material found in Section 1 now goes into Section 2.

Section 5.5, when present, can be UV spectrometry, proton magnetic resonance spectrometry, radioassay, phosphorimetry, colorimetry, and other unrelated topics. Putting it another way: suppose an analytical chemist wishes to examine the applicability of high-pressure liquid chromatography for a drug analysis whose monograph has been published in this series. Where does he or she look? Answer: Somewhere near the end of the monograph, but be careful, because the material on chromatography may be divided between methodology, analysis of dosage forms, and analysis from biological fluids.

Make no mistake, *Analytical Profiles of Drug Substances* belongs in the personal libraries of drug analysts. Teachers in the field should purchase it as well as school, university, and company libraries. In addition, the publishers and editors should be encouraged to investigate a student rate for graduate students in pharmaceutical analysis. At the same time, some active editing would correct glaring inconsistencies and deficiencies and make the *Analytical Profiles* series reflect the care and consistency expected of the profession and the Academy.

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