

REVIEWS

Microbiology-1974. Edited by David Schlessinger. American Society for Microbiology, Washington, DC 20006, 1975. 314 pp. 16 × 26.5 cm. Price \$16.00.

David Schlessinger has gathered together, from several symposia, topics of interest to a wide range of microbiologists. The first two-thirds of the book is devoted to the first ASM Conference on Extrachromosomal Elements in Bacteria held in New Orleans in January 1974. A comprehensive coverage of plasmid developments is presented.

The last third of the book is shared by two topical symposia held in the National ASM meetings in 1974. The first topic is a discussion of *Vibrio parahaemolyticus*, presenting the occurrence, identification and clinical significance of this little known but important cause of human bacterial gastroenteritis. This section can be of value to laboratories conducting tests for this organism because of the background information included. The second topic presents the roles of iron in host-parasite interactions and covers the decided need for more information on this subject. These relationships can be of critical importance in the treatment of the disease.

I believe that the book is of value to microbiologists so that they may keep current with some developments in the many fields of their specialty. However, I feel uncomfortable with the title. "Microbiology-1974" implies a far broader coverage of the subject than is found. A more appropriate title could have been used to lessen the all encompassing sweep of this title.

Reviewed by M. A. Garth
Chief, Microbiological Assay Branch
National Center for Antibiotic Analysis
Food and Drug Administration
Washington, DC 20204

matter is either redundant or irrelevant. This is not a criticism of the authors, who have done a creditable job, but of the editors, who are, as they say in the preface, responsible for "the choices of subject matter."

One more chapter, present in both editions, must be added to a list of extraneous material—that on pilot plant scale-up techniques. Most of this information is redundant with that in the chapters on dosage forms; instead, pertinent comments on scale-up problems should be added to the dosage form chapters. The editors should seriously consider eliminating these three chapters from the third edition and use that space for a more thorough and enlarged updating of the many necessary and worthwhile sections of the book. One gets the feeling that these three chapters are included for students, and this perhaps best illustrates the difficulty of trying to prepare a text for such a wide range of readers, from undergraduate students to industrial scientists to regulatory personnel.

One last critical comment: while the chapter on "Quality Control: Process and Dosage Form" is adequate, for the third edition the editors might do well to assign that subject to practicing experts in the field.

The overall high quality of this book demands that any reviewer end on a positive note. The editors are to be applauded for enlisting the help of many recognized experts in the various technical fields represented in the text. The book is an ambitious undertaking, and the editors and authors can take justifiable pride in the fact that they have essentially succeeded. The above critical comments are only intended to suggest how even more excellence might be attained.

Reviewed by James E. Tingstad
Riker Laboratories, Inc.
Subsidiary of 3M Company
St. Paul, MN 55101

The Theory and Practice of Industrial Pharmacy. Second Ed. L. LACHMAN, H. A. LIEBERMAN, and J. L. KANIG. Lea & Febiger, 600 Washington Square, Philadelphia, PA 19106, 1976. 787 pp. 18.5 × 26.5 cm. Price \$38.50.

The second edition of this book improves upon the worthwhile original. This improvement, apart from the usual updating of chapters, results primarily from the addition of a knowledgeable and much needed chapter on preformulation. The new section on packaging materials science is also welcome, although it is somewhat superficial and suffers by comparison with the preformulation chapter. The new organization of the book, whereby theory and practice are juxtapositioned for each dosage form, adds clarity.

The elimination of the sections on heat and momentum transfer and fluid flow is an improvement, primarily because it is difficult to deal adequately with these highly technical subjects in a few pages of a book of this type. The demise of the chapters on law and the structure of pharmaceutical companies can only be applauded, not because of any serious flaws in prose or content but rather because these subjects seem out of phase with the general thrust of the book.

Unfortunately, valuable space in the new edition is unnecessarily and unwisely taken up by new chapters on drug regulatory affairs and production management. The former suffers from the fact that such a complicated, rapidly changing subject cannot be dealt with effectively in 30 pages of a book that is updated every 6 years, especially when questionable subjects, e.g., patents, copyrights, and unfair competition, are included. The latter (production management) is in a more critical state of suffering because, in the main, the subject

Quantitative Thin Layer Chromatography. Edited by JOSEPH TOUCHSTONE. Wiley, New York, New York, 10016, 1973. 330 pp. 16 × 24 cm. Price \$14.95.

The title of this book is misleading. It is not a text designed to tell you everything you ever wanted to know about quantitative TLC. It is a collection of papers presented by various authors describing how they use densitometry and TLC to solve a particular problem. The text assumes that the reader is familiar with the techniques of quantitative determination by visual comparison and elution followed by instrumentation. The major objective of this text, as stated by the editor, is to delineate the parameters and requirements of densitometry.

Some of the chromatographic procedural problems discussed, which are associated with adsorbants, sample application and development, apply to other methods as well as densitometry. However, densitometry is further complicated by background and nonuniformity of the plate, external light, and measurement at a single wavelength. One must decide whether to use a single- or double-beam instrument, reflectance, or transmittance. The general conclusion reached upon completion of the book is that one must try changing all of the variables to suit a particular situation.

The selection of articles for the book does illustrate the versatility and scope of TLC and densitometry. After the introduction, there are 15 chapters, each dealing with a different field such as amino acids, air pollutants, pharmaceuticals, and polymers.

Data are presented to show densitometry to be superior to other methods such as GC, paper chromatography, and direct fluorescence assay. One chapter contains data to show the superiority of densitometry over the more subjective visual inspection of the plate.