

Book Reviews

PHARMACEUTICAL CHEMISTRY. VOLUME I: THEORY AND APPLICATION, edited by Leslie G. Chatten, Marcel Dekker, Inc., New York. 1966. 504 pages, indexed. Price \$14.50.

The scope of this text can most accurately be described as analytical pharmaceutical chemistry. It is the first volume of a two-volume series which is intended as a text for senior undergraduate and graduate pharmacy students. It deals with theoretical and practical considerations of gravimetric analysis, acid-base titrations and pH, precipitation and complex formation, acidimetry and alkalimetry, nonaqueous titrimetry, complexometric analysis, alkaloidal assay, miscellaneous methods, ion exchange, chromatography, and analysis of fixed oils and volatile oils. Volume II will cover the theory and application of instrumental techniques.

This book is composed of thirteen chapters, each of which has been written by a different contributing author. The joint authorship has an international character with contributors from the United States, Canada, and England. Each of the authors is a teacher of pharmaceutical chemistry or a related discipline of pharmacy.

Considering this organizational approach, the material within the book is surprisingly well presented and integrated. Only a slight tendency toward repetition is evident, and this is often justified for the sake of completeness within each chapter. An ample number of references are listed at the end of each chapter for those interested in further pursuing a particular topic.

The reviewer believes that this book provides a significant advance over some previously available undergraduate texts in analytical pharmaceutical chemistry in that emphasis has been placed on basic theory and applications of specific methods rather than on official assay procedures in the official compendia. The text helps to give insights into the official United States Pharmacopoeia and British Pharmacopoeia assay methods but only as examples of the basic methods which are described in length.

For individuals who have not been directly involved in analytical chemistry, this book can serve as an excellent review and provides the opportunity to assimilate new method-

ology which has been added to the field in recent years.

This text is recommended as a general review and reference text for those interested in updating their knowledge of analytical chemistry and analytical pharmaceutical chemistry.—PAUL THAU—CIBA Pharmaceutical Company.

FLAVOR CHEMISTRY, Volume 56, in Advances in Chemistry Series, American Chemical Society, Washington, D. C., 1966. 278 pages, illustrated and indexed. Price \$8.00.

These fifteen papers of the first symposium on flavor sponsored in April, 1966, by the recently organized Flavor Subdivision of the Agricultural and Food Division of the ACS are in the main a credit to their authors and to the symposium chairman, Irwin Hornstein. Purpose of the symposium was "not only to present recent advances in flavor chemistry but also to bring together current thoughts concerning the mechanism of taste and odor reception, odor theories, and approaches to flavor evaluation." Because the book was published so (relatively) soon, its content is current, and it should become a part of the library of any technically trained individuals who, even remotely, are concerned with or about flavor.

The first four papers set the stage in their reviews of: sensory mech-

anisms (Beidler); odor theories (Dravnieks); a physicochemical model of odor mechanics *in vitro* (Rosano and Friedman); and taste panels (Kramer). Ryder's research paper covering the synchronization of taste panels with instruments creates an admirable bridge to the research papers that follow: role of milk lipids (Day); fruit flavor chemistry (Teranishi); flavor components from vegetables (Bernhard); bread flavor chemistry (Johnson, *et al.*); beverage flavors (Konigsbacher and Donworth); flesh foods flavor (Tarr); spice and oleoresin flavor chemistry (Rogers); irradiation damage, lipids (Merritt, *et al.*); volatile banana components (Wick, *et al.*); and flavor enhancers (Kuninaka). Most of the authors see the details of their subjects in perspective, and the reader thereby can obtain a good overview as well as the specifics of techniques and data. This reviewer found the papers interesting, readable, and informative.

The book's index seems adequate. The low gloss paper and type size are gratefully accepted. Location of charts and tables, though admittedly chromatograms do present problems, leaves something to be desired. The number of typographicals and unproofed formulas should serve to alert the reader. Nevertheless, the book and its contents are useful, valuable and timely, and this reviewer looks forward to the next ACS flavor symposium publication.—JEAN F. CAUL—Arthur D. Little, Inc.