Physical Pharmaceutics. By E. SHOTTON and K. RIDGWAY. Oxford University Press, Ely House, London W.1, England, 1974. xiii+409 pp. 209 figs., 30 tables, 15.5 × 23.5 cm. Price £ 15.—$48.00. (Distributed in the United States by Oxford University Press, 200 Madison Ave., New York, NY 10016.)

The first eight chapters of this book (about 60% of the volume) are devoted to consideration of the physical–chemical principles involved or associated with some pharmaceutical phenomena, systems, and operations. Included are phase rule as applied to different systems, viscosity and flow of fluids, fluid mechanics, heat transfer, evaporation and drying, surface properties, disperse systems, and powders. Three of the remaining seven chapters deal with solid dosage forms, liquid dosage forms and aerosols, and radioactive pharmaceuticals. One chapter briefly describes the formulation of pharmaceutical preparations and one chapter briefly presents biopharmaceutics. There is a chapter on humidification and air-conditioning as well as one chapter on construction materials for manufacturing equipment and for packaging.

Although the first 60% of the book deals with physical–chemical principles, the authors have introduced many pharmaceutical examples to illustrate these principles. The last part of the volume considers various classes of pharmaceutical dosage forms and their manufacture.

This book is intended as a text for an introductory course in physical pharmaceutics in the undergraduate pharmacy curriculum. The basic principles are presented first and are then followed by a limited number of descriptions of unit operations with little emphasis on the latter. This procedure of treating unit operations briefly was followed to limit the size of the book and to direct its use to pharmacy students rather than to chemical engineers.

In the preface the authors have stated that some unevenness of coverage may have arisen from limiting the size of the volume so that the cost would not become prohibitive. The brevity of some chapters, especially those in the last part of the book, is noticeable and in spite of the cost it may be advisable to expand them (the chapters on pharmaceutical preparations, liquids, formulation of pharmaceutical preparations, and biopharmaceutics) in the second edition.

"Physical Pharmaceutics" is a well-written text and is illustrated nicely with clear line-drawing figures. It is not an "all-inclusive" type of text but rather is intended to be used in an introductory course for pharmacy students. A major consideration in the acceptance of the book will be the listed price.

Reviewed by Elmer M. Plein
School of Pharmacy
University of Washington
Seattle, WA 98195

Amino-acids, Peptides, and Proteins, Vol. 6. R. C. SHEPPARD, Senior Reporter. The Chemical Society, Burlington House, London, W1V OBN, England, 1975. 16 × 24 cm. 514 pp. Price £16.50.

This volume covers the pertinent papers relative to the chemistry of amino acids, peptides, and proteins published in 1973. The report is subdivided into the now familiar areas as covered by previous volumes in this series. However, in this sixth volume the chapter on metal derivatives is omitted. The areas reviewed are: amino acids; structural investigations of peptides and proteins; peptide synthesis, which also includes an appendix of syntheses reported during 1973; peptides with structural features not typical of proteins; and the most interesting area to this reviewer, chemical structure and biological activity. A comparison can be made of the amount of coverage given to each of these areas in Vol. 6 with those reported on in the previous five volumes. The areas of structural investigation (45%) and peptide synthesis (20%) comprise nearly two-thirds of this volume. The identical sections covered in the previous volumes of this series have similar percentages. Thus, it would appear that there has been little change in the emphasis of research in peptide chemistry over these past 6 years.

The reappearance in Vol. 5, and again in Vol. 6, of the chapter on chemical structure and biological activity is very welcome. Usually the biological activity, which provides practically all of the justification and motivation for synthetic peptide chemistry, receives little or no attention in many publications. This omission is hard to understand. Possibly the pressure to publish the synthesis of yet another peptide may be reason enough for some authors.

The sixth volume of the series of specialist reports on amino acids, peptides and proteins is an essential addition for any specialized library in the peptide field. The chapter on the structure and biological activities is alone worth the purchase of this volume.

Reviewed by Brian J. Johnson
Department of Microbiology
University of Alabama Medical School
Birmingham, AL 35294

Principles of Pharmaceutical Marketing, 2nd Ed. By MICKEY C. SMITH. Lea & Febiger, Philadelphia, Pa., 1975. 440 pp. 16 × 24 cm. Price $16.50.

The book is a major contribution for pharmaceutical scientists, pharmacists, and pharmacy students. It would be nothing less than naive and erroneous if we thought that the profession of pharmacy and the pharmaceutical industry feed on the physical sciences and technology alone. Professor Smith has, in one concise package, given us the means to learn about pharmaceutical marketing. Divided into six parts (containing 20 chapters), the book leads the reader through the nuances of the pharmaceutical market to an in-depth examination of products and the decisions and processes involved in administrative decisions regarding marketing. Next, the reader is introduced to the three main components of the marketing channels—manufacturers, wholesalers, and retailers—and from these through a splendid review of the elements involved in pricing and competition, advertising, and retailing and finally, before the summary, through an explanation of internal and external controls.

Paul Olsen's book of 30 years ago stood as one of the few references in this area until the 1968 publication of this book's first edition, which was the first product in the field with quantitative data. The major flaw of the 1968 work, namely the rapid obsolescence of data, has now been fully rectified with the publication of the 1975 second edition containing updated data throughout. Naturally, the book only superficially touches many areas, but that is a fair price to pay for a work that has delivered, in a coherent form, a review of such an immense area.

Complete comprehension should be possible by anyone engaged in any area of pharmaceutical endeavor. This reviewer recommends the book to those engaged in physical and biological science activities as an excellent vehicle to gain an understanding of what is involved in bringing a product to market and sustaining it there once a marketable substance is produced. Of course, the book should serve as a text in pharmaceutical marketing courses in colleges of pharmacy. Lastly, as a reference, the book is a virtual gold mine of industry statistics. Professor Smith has produced a most useful work.

Reviewed by
Albert I. Wertheimer
College of Pharmacy
University of Minnesota
Minneapolis, MN 55414