and dose schedule by making it clear that one should first pay strict attention to the patient's particular disease conditions because these invariably affect the responses of the agents chosen. In this regard, it must be stated that no other text to date has done as good a job as this one. It truly succeeds as a bridge between classic pharmacology texts and those limited to therapeutics and medicine.

Through a close reading of any chapter, one is made aware of clinical pharmacology as it should be delineated; *i.e.*, as an area of concentration that deals with the understanding of the action of current drugs in patients with diseases, rather than simply the evaluation of new entities as they are synthesized and brought to the clinic for initial trials.

The handling of the reference material for books, tables, and figures is accomplished in such a way that if one is interested it can be found, but the descriptive material is not continuously interrupted with names, sources, and dates.

This work is recommended for anyone involved with the applied aspects of pharmacology including physicians, pharmacologists, pharmacists, and allied health professionals. It will make an excellent contribution to the literature and certainly fills a void that has developed as pharmacology and therapeutics have emerged as the foundations for a thorough understanding of the clinical implications of drug usage.

Reviewed by Ronald F. Gautieri
Department of Pharmacology
Temple University
School of Pharmacy
Philadelphia, PA 19140

Terpenoids and Steroids, Vol. 6. Edited by K. H. OVERTON *et al.* The Chemical Society, Burlington House, London W1V OBN, England, 1976. 363 pp. 15 × 22 cm. Price £20.50. (Available from Special Issues Sales, American Chemical Society, 1155 Sixteenth Street, N.W., Washington, DC 20036.)

This is the sixth volume on terpenoids and steroids in a valuable series first published 5 years ago. The aim of each series of Specialist Periodical Reports is to provide a systematic, comprehensive, and critical review of progress in the major areas of chemical research. The various series, which now total 35, are being published annually or bienially on such topics as Environmental Chemistry; Biosynthesis; Foreign Compound Metabolism in Mammals; The Alkaloids; Carbohydrate Chemistry; Amino-acids, Peptides, and Proteins; and Photochemistry.

This volume does not contain a subject index but is organized in a systematic manner which facilitates finding any information being sought. The six pages in the Table of Contents outline this volume in detail. The chapters are divided into many sections, which are identified in boldface type in the text as well as in the Table of Contents. These sections are further divided into subsections. Chapter titles are found at the top of every second page of the text. The author index of 3500 names is helpful to those following the research of a given individual.

This review is illustrated with drawings of 2100 chemical structures. It is documented with 1850 references, most of which are listed at the bottom of the first page of each chapter where cited.

Part I, which covers the terpenoids, is divided into chapters including Monoterpenoids, Sesquiterpenoids, Diterpenoids, Triterpenoids, Carotenoids and Polyterpenoids, and Biosynthesis of Terpenoids and Steroids. Part II, which covers steroids, is divided into two large chapters entitled Steroid Properties and Reactions, and Steroid Synthesis. No compilation of references to review articles on subjects related to terpenoids or steroids is included in this volume as in previous volumes.

The chapter on Steroid Properties and Reactions is divided into sections based upon more common functional groups, a section on Compounds of Nitrogen and Sulfur, and sections on such important subjects as Photochemical Reactions, Molecular Rearrangements, and Functionalization of Non-activated Positions. The chapter on Steroid Synthesis is divided into the following sections: Total Synthesis, Halogenosteroids, Oestranes, Androstanes, Pregnanes, Seco-steroids, Cholestane and Analogues, Steroidal Insect and Plant Hormones, Steroidal Alkaloids, Sapogenins, Cardenolides, and Bufadienolides.

The editor and 11 reporters who prepared this volume are to be commended for maintaining the high standards set by the previous volumes in this series. Everyone interested in the chemistry of terpenoids and/or steroids should have access to this volume and others in the series. They are great timesavers and sources of new ideas. I highly recommend this series.

Reviewed by Norman J. Doorenbos
School of Pharmacy
University of Mississippi
University, MS 38677

Progress in Toxicology. Special Topics. Vol. 2. By GERHARD ZBINDEN. Springer-Verlag, 175 Fifth Ave., New York, NY 10010, 1976. 117 pp. 18 × 26 cm. Price $7.40.

The cuisine of Zbinden's second book on special topics in toxicology is based on experience, sound reasoning, good common sense, a pinch of humor, and clear expression of realistic idealism. Is toxicology really too serious a matter to be left to the toxicologists? Read the book and answer the question yourself. Then read "How Safe is Safe?," available from the National Academy of Sciences. In a rather brief but informative manner, Zbinden covers in 93 pages (not including references and index) some of the most important problems confronting toxicology and related sciences but in a rather unusual manner. For example, he relates his son's experience with a gum ball machine, indicating that his son may put in two nickels and get nothing but doesn't give up until he finds out why or gets his two nickels back! "Why then does a negative response to a drug not elicit from us a similar anger?" More attention is paid to side-effects than negative medication responses. Zbinden then goes on to demonstrate the role of urinary pH as a factor in accelerated drug excretion and negative medication responses.

He discusses percutaneous drug permeation, hyperglycemia, the glutathione story, a new disease (pseudolupus), drug-induced lipidosis, the magnitude of drug combinations, drug interactions, and the growing problem (?) of health hazards from colors. In his discussion of food, drug, and cosmetic colors, he points out that the number of colors permitted in foods varies from country to country; *i.e.*, Australia permits seven synthetic and six natural dyes, and the United Kingdom permits 22 and 23, respectively. All other countries are somewhere inbetween. In this section, Zbinden also deletes expletives!

I personally enjoy reading anything that Zbinden writes (in English!) and don't hesitate to recommend this book to all concerned with toxicity, toxicology, and human health. I hope that Zbinden continues to write because what he says affords sound advice for those dealing with the naive.

Reviewed by Charles L. Winek
School of Pharmacy
Duquesne University
Pittsburgh, PA 15219