REVIEWS

Proceedings of the First International Symposium on Cyclodextrins. (Budapest, Hungary, 30 September–2 October 1981). Edited by J. SZEJTLI. D. Reidel Publishing Co., 1300AA Dordrecht, Holland. (U.S. Distributor, Kluwer Boston, Inc., 190 Old Derby St., Hingham, MA 02043.) 1982. 544 pp. 17 × 24 cm. Price $84.50.

The cyclodextrins (cycloamyloses) are cyclic oligomers of D-glucose produced by the action of cyclodextrin glycosyltransferases on starch. The products consisting of 6, 7, and 8 glucose units are called α-, β-, and γ-cyclodextrins, respectively; these substances are commercially available, and have attracted the interest of many researchers because the cyclodextrin molecule possesses a cavity of molecular dimensions and is capable of forming an inclusion complex, by acting as the "host," with "guest" species small enough to enter the cavity. In the autumn of 1981, a conference was held in Budapest, Hungary at which workers in the cyclodextrin field presented their results; this book is the proceedings of the conference.

The symposium, and the book, was organized into six parts: Chemistry and Production of Cyclodextrins (7 papers); Enzymology, Toxicology, and Metabolism (10); Cyclodextrin Complexes (16); Cyclodextrin Derivatives (8); Cyclodextrins in Pharmaceuticals (13); and Applications of Cyclodextrins in Foods, Agriculture, and Other Industries (9). Most of the commercial production and applications research is being carried out in Hungary and Japan, and these countries were well represented at the symposium. Only two U.S. laboratories presented papers, so the book does not give a balanced view of the world-wide activity in the field.

Many of the papers will interest pharmaceutical researchers, because the cyclodextrins' capability of forming inclusion complexes can alter the effective properties of a guest drug molecule. This "molecular encapsulation" can affect drug solubility, volatility, dissolution rate, chemical reactivity, and even biological activity. Although cyclodextrins are unlikely ever to become widely used formulation ingredients, it is probable that they will merit occasional specialized application, and laboratories working with drug delivery systems will find this book a useful introduction to current ideas, literature, and workers in the field.

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Formulation of Veterinary Dosage Forms. Edited by JACK BLODINGER. Marcel Dekker, New York, NY 10016. 1983. 316 pp. 15 × 23 cm. Price $48.50 (20% higher outside the U.S. and Canada).

This book is a member of a continuing set, which until now collectively comprises 17 volumes of text books and monographs entitled "Drugs and Pharmaceutical Sciences." As stated in the preface of this volume, the book describes the types of drug formulations administered to animals, the art and science used in their development, and the techniques needed to administer them so as to ensure optimum efficacy.

The first five chapters of this volume cover the details of all phases of veterinary dosage formulation from initial development to final stability testing. They are "The Basis For Selection Of The Dosage Form," "Specialized Dose Dispensing Equipment," "Formulation of Drug Dosage Forms For Animals," "Formulation of Drugs For Administration *Via* Feed Or Drinking Water," and "Stability Studies Of Veterinary Formulation." The sixth chapter, "Regulatory Clearance," is well placed at the end and covers the requirements for registration of animal health products in the United States, Australia, Brazil, the European Economic Community, and Japan.

Each chapter is written by an expert on the subject in a crisp, authoritative, and comprehensive manner. Useful details on the development of drug forms for animals which differ from those known in the human field are presented in a logical and succinct manner. Each chapter is well referenced through 1980. The index is extensive and good, providing the reader with cross-referencing to both specific and broad general categories.

This book fills a previous void, and anyone actively involved in formulation of veterinary dosage forms will find it to be of great value.

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Radioimmunoassay and Related Procedures in Medicine–1982. Proceedings series; International Atomic Energy Agency. 1983. 823 pp. 15 × 24 cm.

This volume resulted from an international symposium on radioimmunoassay and related procedures in medicine held in Vienna, Austria in June 1982. The symposium was organized and the book edited by the International Atomic Energy Agency. The volume consists of 9 review papers, abstracts of 65 presentations, 23 poster presentations, and edited summaries of the discussions. Areas that were reviewed and had original research presentations include: reagents and separation procedures, assays for free hormones, receptors, biological substances, and drugs. Other areas covered include data processing, intralaboratory control, automation, external surveillance of assay performance, assay services in developing countries, public health, and clinical applications and alternatives to radioassays.

The review papers in this volume are relatively complete discussions of specialized topics in radioimmunoassay technology. The scientific and poster presentations are sufficiently detailed that meaningful scientific information on methods, results, and discussion can be extracted. Because of the large cross section of radioimmunoassay concepts and technology that are covered in this volume, potential readers should carefully examine the specific topics of review or original research to be certain that individual areas of interest are present prior to purchasing or reading this book.

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Central Analgetics. Edited by DANIEL LEDNICER. Wiley-Interscience, New York, N.Y., 1982. 219 pp. 15 × 23 cm. Price $47.50.

Central Analgetics is the inaugural volume in the *Chemistry and Pharmacology of Drugs* series under the editorship of Daniel Lednicer. This book provides for the first time a comprehensive collection of reviews of the physiology, pharmacology, and chemistry involved in the transmission of pain, as well as its alleviation by drug therapy.

The book is divided into four chapters, each contributed by an author active in the forefront of the field chosen for critical review. In the first chapter, by J. S. Mohrland, basic physiology of pain is outlined; this includes the complex network of neural pathways, transmitters, and modulators which interact prior to the sensation of pain. Of special interest are discussions pertaining to the interplay between pain stimuli and other central nervous system functions. The second chapter, by P. F. Von Voigtlander, is a compilation of animal models, both *in vivo* and *in vitro*, which have proven usefulness in predicting clinically effective analgetics. In examining the various test methods for abuse potential, dysphoria, and other side effects, the author also presents an overview of current concepts of opioid receptors, thus adding new dimensions and greater depth to his discussions. Chapter 3, by J. S. Morley, deals with