Pharmaceutical Dosage Forms: Disperse Systems Volume 3

Herbert A. Lieberman, Martin M. Rieger and Gilbert S. Banker (Editors), 2nd Edition, Marcel Dekker, New York; 1998, 584 pp.; $165.00; ISBN: 0-8247-9842-2

This book completes the revised, second edition of the three-volume series on disperse systems. It is divided into two sections comprising 13 chapters written by 26 international experts coming from academia and industry. Part A is dedicated to specialized dispersed systems whereas Section B focuses on equipment, processing, quality assurance, validation and regulatory aspects.

Chapter 1 by Morton Rosoff deals with specialized pharmaceutical emulsions. The topics included are: macroemulsions, multiple emulsions, gel emulsions, microemulsions, vesicles, and other structures, i.e. lamellar liquid crystals. Chapter 2 focuses on liposomes. Lasic et al. discuss the formation, stability, and pharmaceutical applications of these vesicular drug delivery systems. The next four chapters describe polymeric dispersions. The contribution by Bodmeier and Maincent deals with various types of polymeric nanoparticles as drug carriers. Wang and Ghebre-Sellassie report on aqueous polymeric dispersions as film formers. Allemann, Gurny and Leroux focus on biodegradable nanoparticles of Poly(lactic acid) and Poly(lactic-co-glycolic acid). And finally, Kumar, Banker and Deshpande discuss aqueous polymeric dispersions with special emphasis on cellulose derivatives, and silicone elastomers. Each of these four chapters provides an excellent overview of the area of polymeric dispersions, with each having its own and specialized point of view. However, these chapters also demonstrate that duplications in multi-author books can rarely be avoided. In this volume in particular the methods of preparation and characterization of polymeric dispersions are explained manifold. I would have preferred to read this information more comprehensive in one or the other chapter. The last chapter of the first section then concentrates on the scientific, regulatory, and toxicological information for select and commonly used polymers in disperse system formulations. These are issues of great practical value for the formulator and are scarcely found in other textbooks.

Chapter 8 written by Scott and Tabibi, the first in the second part of the book, deals with the equipment selection and operating techniques. It covers all the traditional manufacturing systems and also some more recent developments, e.g. use of supercritical fluids for liposome preparation. Chapter 9 by Block and chapter 10 by Cherian and Portnoff deal with scaling-up considerations. The former puts a special emphasis on theory and some general practical aspects, whereas the latter focuses on parenteral disperse dosage forms. 'Quality Assurance' by Hanna (Chapter 11) reflects recent trends in enhancing the overall quality of a pharmaceutical product. 'Validation of Disperse Systems' by Nash (Chapter 12) offers a possible strategy which can be used to validate the manufacture of disperse dosage forms. Although such a book does not allow to highlight many specific problems this chapter can give some clear hints for the practitioner. The last chapter of the book by Tomaszewski and Russello provides an overview of the laws and regulations concerning the pharmaceutical industry. The authors give a short summary of the history of the FDA and the actual legal situation in the US. Regulatory issues from the European or Japanese perspective, however, cannot be found in the book. This book offers a lot of information on modern industrial pharmacy. The practical aspects are mostly in the foreground and comprehensive theory is avoided where it does not support a deeper understanding. Most chapters provide numerous bibliographic citations that give easy access to the relevant and up-to-date literature on disperse systems. A few tables need re-editing and the reproduction of some figures is not of the best quality. However, this does not substantially reduce the overall good impression of the book. In summary, this is an easy reading text book and it can be recommended primarily to all those who are in charge with the formulation, manufacture, and quality control of disperse systems. But also advanced students and other professionals which are not experts in this field can benefit from this book.

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