

The following two chapters focus on Thermogravimetric Analysis. Besides a general overview, the instrument types are described in detail. In depth knowledge on working instructions for the practice with typical examples and kinetic equations is presented. Furthermore, it should be highlighted that the authors emphasize that Thermogravimetric Analysis cannot be used as a stand-alone method which should result in practical implications for new researchers in the field. Concluding the issue of Thermogravimetric Analysis, a literature overview on pharmaceutical applications is given.

The remaining chapters cover classical methods such as Thermal Microscopy, Isothermal Microcalorimetry and Thermorheology, as well as methods that are more recently developed such as High Sensitivity Differential Scanning Calorimetry (HDSC) and Thermally Stimulated Current Spectroscopy. The chapter Thermal Microscopy presents Thermal Microscopy as an additive method for corroboration of data; however, it does not cover the up-to-date knowledge in this area. The chapter on Isothermal Microcalorimetry describes in detail how to use this technique and refers for this purpose mostly to lactose as a basic example. Furthermore, suggestions to characterize polymorphs at the early stages of identification are given, which is extremely useful for preformulation scientists. The chapter on Thermorheology gives the background on both rheology and thermorheology, and is of special interest for the advanced reader due to its elaborateness regarding all aspects of thermorheology. The newer methods such as HDSC and thermally stimulated current spectroscopy which are presented at the end of the book bring to perfection the overview on thermal methods presented.

Summarizing, all of the most widely applicable methods are presented; however, the reader looking for a thorough description of coupled methods and practical data on coupled methods will be disappointed. He has to refer the frequent mentioning of the coupled methods in the different chapters and the frequently given warning to confirm the results obtained with one method by other methods or to interface one thermal method with a second measuring technique. As stated by the authors, it was not their aim to present the newest developments on coupled methods: such a characterization combined with practical suggestions would always be insufficient because of the highly diverse nature of these methods. As a result, it was much more relied on covering in detail the basic principles.

It might be disadvantageous that the book took longer time than intended. This can also be asserted after reviewing the actuality of the references of some chapters. However, it can be hoped that a second edition will be edited very soon since modern pharmaceutics are unthinkable without thermal methods.

Katharina M. Picker-Freyer  
Martin-Luther-University Halle-Wittenberg,  
Department of Pharmaceutics and Biopharmaceutics,  
Halle/Saale, Germany  
E-mail address: katharina.picker-freyer@pharmazie.uni-halle.de

Available online 25 September 2008

doi:10.1016/j.ejpb.2008.09.008

**J. McGinity, L. Felton (Eds.), *Aqueous Polymeric Coatings for Pharmaceutical Dosage forms*, third ed., Taylor and Francis, London, 2008, 488 pp. 145 £. ISBN: 0-8493-8789-2**

The book “Aqueous Polymeric Coatings for Pharmaceutical Dosage Forms” in its Third edition edited by James W. McGinity and Linda A. Felton presents the state-of-the-art knowledge on Pharmaceutical coating. As in the previous editions, the various chapters cover the present knowledge on coating technology. Evi-

dently, it makes sense that the book deals predominantly with aqueous coating systems with special respect to dispersions, since these are the most recently launched innovations. A special emphasis was laid on plasticizers, additives and storage of coatings which are like recurrent themes over the whole book. All important coating materials are presented and most of the materials are described in depth with all details.

The book is clearly structured, consists of fifteen chapters and can be divided in four sections with respect to the themes covered. The first three chapters are dedicated to the basics of aqueous coating, followed by four chapters on analysis and characterization of the films, not neglecting problems associated with film formation.

The very first chapter gives a clear and distinct description of film formation with pseudolatex dispersions accompanied by many examples which are very useful for the practical scientists. The following chapter describes the working with core pellets which is important with regard to the more and more important pellet layering technique used for modified-release oral dosage forms. The methodology, conditions and considerations are described and this chapter is a natural follow-up to the first one. Finally, the third chapter describes advantages and disadvantages of processing equipment with practical examples, however, without covering much literature.

The second section covers mechanical properties of polymeric films and methods for film analysis, as well as defects in aqueous film coated tablets, their appearance, origin and theoretical background with suggestions how to avoid them. Both these issues were also discussed in the previous edition of the book. Two other chapters cover problems which are underrepresented in the literature as the adhesion of polymeric films and the influence of coloring agents. In both chapters the influencing factors and conditions are exhibited accompanied by various examples from the literature.

After these two more general sections, a thorough description of all most recently developed new materials as well as of those materials most frequently used is following. As natural for different authors, these four chapters are going more or less in depth. The formulation, process variables and problems associated with the development of ethylcellulose pseudolatex are presented. The description of polymethacrylate systems in chapter nine gives an extremely broad overview and covers everything one needs to know on polymethacrylates. The application of HPMC and HPM-CAS is covered in chapter ten dealing with modified as well as with pH-dependent release. Further materials of importance are presented in this section; however, for some previously launched materials the reader has to refer to the previous editions which might be of disadvantage for a new researcher in the field.

Finally, there follow four chapters on particle design, polymer interactions, coatings of biodegradable polymers and physical aging which cover further aspects to consider when working with aqueous coating systems or developing new materials.

Thus, the book gives an in-depth knowledge for everyone working with aqueous coatings. The high actuality of the book might also be attributed to the fact that some of the world's experts have contributed to this edition. Overall the book is extremely useful for new as well as for advanced researchers in industry as well as for academic scientists.

Katharina M. Picker-Freyer  
Martin-Luther-University Halle-Wittenberg,  
Department of Pharmaceutics and Biopharmaceutics,  
Halle/Saale, Germany  
E-mail address: katharina.picker-freyer@pharmazie.uni-halle.de

Available online 25 September 2008

doi:10.1016/j.ejpb.2008.09.010