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## **Book Review**

Industrial Aspects of Pharmaceutics E. Sandell (Ed.)

Swedish Pharmaceutical Press, Stockholm, 1993. 298 pp.; ISBN: 91-86274 465.

Price: Not Stated.

This is a contributed book comprising 23 individual chapters, including an introduction, and attempts to cover an extremely large area of the pharmaceutical sciences within its 300 or so pages. For example, the first 100 pages manage to cover micromeritics, accelerated stability testing, flow properties of pharmaceuticals, preformulation, drug dissolution, solid state stability, oral controlled release and depot formulations. The rest of the book continues at the same pace! Not surprisingly, some areas are sparsely covered. For example, although in the chapter covering Characterization of Powder Surface Area determination of the volume-surface statistical mean diameter is illustrated, the original Edmundson equation is not shown or directly referenced. Other important statistical diameters are not mentioned at all. Some of the references quoted at the end of the chapter would rectify these omissions but it would have been useful to relate these to the text in question. However, some aspects are better represented, e.g., methods for determining particle surface area. The chapter on preformulation is very sketchy and, without detailed references, only provides a general overview of this important area.

The middle chapters of the book cover controlled-release dosage forms, compactability of pharmaceutical powders, friction and lubrication in tabletting, granulation and coating. The various parameters involved in the tabletting process are reasonably well detailed in the book. In par-

ticular, data are presented which improve the understanding of fundamental compaction mechanisms with regard to the importance of intermolecular forces.

The final section of the book includes chapters on pellet preparation, film coating, particular matter in parenterals, microspheres as parenteral drug delivery systems, pulmonary and nasal administration of drugs, ocular and rectal drug delivery, cell cultures for characterization of intestinal drug absorption and quality assurance and good manufacturing practice. The section on intestinal drug absorption and the use of cell cultures instead of animal tissue is an interesting addition and deals with the advantages and the important limitations of using tissue culture techniques. The final chapter, in a sense, mimics the overall impression of the book, i.e., far too large an issue is covered in scant detail.

The claimed intention of the book was to cover special knowledge on pharmaceutics that exists within the Swedish pharmaceutical industry and academia; I feel that the book has failed to meet this objective. Many other texts are available which cover the contents of this book in a much more detailed fashion.

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