Drug Development and Industrial Pharmacy, 33:1286, 2007

ISSN: 0363-9045 print / 1520-5762 online
DOI: 10.1080/03639040601131088

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Book Review

Fundamentals of Early Clinical Drug Development: From Synthesis Design to Formulation. A. F. Abdel-Magid and S. Caron, eds., John Wiley & Sons, Hoboken, NJ, 2006, Hardback, 323 pages, ISBN: 0-471-69278-6

Many books address individual aspects of process chemistry such as target molecule design, large scale synthesis, and formulation development. Few, however, contain the breadth of topics discussed within *Fundamentals of Early Clinical Drug Development: From Synthesis Design to Formulation* edited by Abdel-Magid and Caron. Although the book is a collection of process chemistry symposium proceedings, it goes well beyond collating a litany of synthetic challenges.

Chapter topics include five specific examples of process syntheses of medicinally important compounds as well as outsourcing, engineering perspectives of large-scale synthesis, and legal aspects of intellectual property and early development. An historical perspective is provided in the opening chapter by pre-eminent process chemist Edward J. J. Grabowski, who recounts his own career with Merck. Authors of other chapters comprise an international cast of well-known leaders in the drug development industry in disciplines ranging from chemistry to engineering to formulations to law. The book is organized with attention to a logical topic flow and functions equally well when read cover-to-cover or when used as a reference by reading individual chapters. The chapters are well referenced and make good use of clearly depicted reaction schemes, drawings, tables, and flow-charts.

The book is relatively short and, as such, has limitations in the depth in which any given topic is covered. Likewise, the index is sparse which may require a bit of page-flipping in order to locate the exact passage desired. However, these limitations fall well below the background noise of value for the text. The overview approach, especially with its use of specific real-world examples, is well worth the trade-off in not being comprehensive in detail. The writing is universally erudite and flows well from topic to topic.

This text is a highly useful resource for a substantial and diverse audience. It has utility for those actively involved in drug development who want an overview of additional aspects of the process, those who are interested in entering the field and also those in the legal, engineering, and scientific communities who desire a general understanding of the types of work conducted within the drug-development industry. This text is a welcome addition to the libraries of anyone with an interest in process chemistry.

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