Design and Strategy in Organic Synthesis

Any chemist who engages in the synthesis of complex natural products has been asked at some point in their careers "Why did you decide to synthesize that particular molecule?" This new book *Design and Strategy in Organic Synthesis* by Stephen Hanessian and his students Simon Giroux and Bradley Merner affords a compelling and historical perspective on that question. In 18 instructive chapters, the authors explore natural product synthesis from various viewpoints, ranging from the inherent beauty and challenge of a molecule itself to the art of its preparation to applications in addressing critical questions in chemical biology. And, it does so with a deep sense of the era in which a given molecule was tackled, highlighting that as the field has evolved, so too have the answers to that core query.

Using a visually appealing two-color format in well-rendered schemes and clear text, the authors organize the reader's journey in synthesis largely through source of chiral materials, exploring with each subclass the methodological and strategic questions that have captured the imagination and creativity of the field as well as how asymmetric catalysis, cascade chemistry, and other modern developments have advanced the art of chiral molecule construction. Where several approaches to a given target have been presented, the authors are careful to describe the unique components of each in a style that is didactic and accessible to any graduate student or postdoctoral fellow, with mechanistic details provided judiciously to enhance understanding. Moreover, the authors have not elected to focus solely on recent accomplishments; classic works are provided as well with strong historical context for what was achieved at the time the work was executed. Indeed, the format of the text readily lends itself to instruction for advanced students, with given chapters easily constituting pre-made lectures ready to be served by a willing and able instructor. For the established practitioner looking for inspiration (whether in research or for a new example to teach in class), a well-composed index, based either on target structure, chiral starting material, or primary author, makes the book readily searched, yielding answers even faster than one might achieve with an internet search engine!

Supplementing this pedagogy are several opening chapters, and a concluding capstone synopsis (entitled "The Essence of Synthesis—A Retrospective") which serves not only to frame the main heart of the book, but also to afford a powerful vision and perspective on the field: its accomplishments, its goals, and most significantly, its future potential (which is bright).

To be sure, there are several books (and series of books) available on the topic of natural product synthesis. Nevertheless, this text is a welcome addition to that collection, one that offers many unique perspectives and connections to other areas of inquiry and the human experience that are likely to be of great value to any serious student of organic chemistry. Its organization affords a distinct way to catalog, consider, and explore synthetic efforts, and the play-by-play for the works described could not be clearer or more concise. It is highly recommended.

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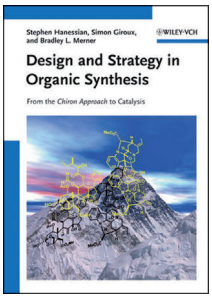

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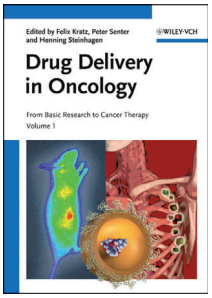
Drug Delivery in Oncology

Modern oncology is a multidisciplinary field, with thousands of clinicians and researchers committing enormous efforts and resources to develop novel and/or improve existing therapies for cancer. However, current success in treating cancer is mostly due to early detection and better screening rather than improved treatment. Therefore, it is critical to understand why current therapies fail, how they can be improved and what best approaches should be taken to design safer and more effective therapies. The three-volume book *Drug Delivery in Oncology* under edition of Felix Kratz, Peter Senter, and Henning Steinhagen provides a state-of-the-art review of the field and represents a unique source of information to anyone who is interested in the topic. The book contains 49 chapters divided in three volumes, which are contributed by 121 internationally recognized experts. Each chapter is written by foremost experts in the respective fields, and comprehensively describes the basic scientific background, as well as preclinical and clinical research status, which makes the material clear and understandable to readers with diverse backgrounds.

Volume 1 covers general principles of tumor targeting (part I) and tumor imaging (part II). It starts with a historic overview of conventional



Drug Delivery in Oncology
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