

Introduction to Strategies for Organic Synthesis

By Laurie S. Starkey



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The stepping-stone text for students with a preliminary knowledge of organic chemistry looking to move into organic synthesis research and graduate-level coursework

Organic synthesis is an advanced but important field of organic chemistry, however resources for advanced undergraduates and graduate students moving from introductory organic chemistry courses to organic synthesis research are scarce. *Introduction to Strategies for Organic Synthesis* is designed to fill this void, teaching practical skills for making logical retrosynthetic disconnections, while reviewing basic organic transformations, reactions, and reactivities.

Divided into seven parts that include sections on Retrosynthesis and Protective Groups; Overview of Organic Transformations; Synthesis of Monofunctional Target Molecules; Synthesis of Target Molecules with Two Functional Groups; Synthesis of Aromatic Target Molecules; Synthesis of Compounds Containing Rings; and Predicting and Controlling Stereochemistry, the book covers everything students need to successfully perform retrosynthetic analyses of target molecule synthesis.

Starting with a review of functional group transformations, reagents, and reaction mechanisms, the book demonstrates how to plan a synthesis, explaining functional group analysis and strategic disconnections. Incorporating a review of the organic reactions covered, it also demonstrates each reaction from a synthetic chemist's point of view, to provide students with a clearer understanding of how retrosynthetic disconnections are made.

Including detailed solutions to over 300 problems, worked-through examples and end-of-chapter comprehension problems, *Introduction to Strategies for Organic Synthesis* serves as a stepping stone for students with an introductory knowledge of organic chemistry looking to progress to more advanced synthetic concepts and methodologies.

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Editorial Review

Review

"Finally, my overall impression of the book is that it will serve well as a quick reference or starting point for an undergraduate researcher or new PhD student in organic synthesis. It is essentially a back-to-basics textbook and there may even be something there for the odd academic who needs some inspiration when handed a new teaching assignment in an undergraduate subject in organic synthesis." (*Angewandte Chemie*, 1 September 2012)

"I will certainly be recommending it to my own students." (ChemMedChem, 1 January 2013)

"Summing Up: Recommended. Lower-and upper-division undergraduates." (Choice, 1 November 2012)

From the Back Cover

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About the Author

Laurie S. Starkey, PHD, is a Full Professor of Chemistry at California State Polytechnic University, Pomona, where she has been teaching organic chemistry and organic synthesis since 1996. Dr. Starkey

earned the College of Science's Distinguished Teaching Award in 2000 and the Provost's Award in Teaching Excellence at Cal Poly Pomona in 2013. Her research interests lie in the area of chemical education, including the development and assessment of online learning tools and the creation of educational videos for YouTube and Educator.com.

Users Review

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Ann Davis:

The knowledge that you get from Introduction to Strategies for Organic Synthesis may be the more deep you rooting the information that hide within the words the more you get thinking about reading it. It doesn't mean that this book is hard to know but Introduction to Strategies for Organic Synthesis giving you enjoyment feeling of reading. The article author conveys their point in a number of way that can be understood by anyone who read this because the author of this e-book is well-known enough. This kind of book also makes your vocabulary increase well. Therefore it is easy to understand then can go to you, both in printed or e-book style are available. We advise you for having this specific Introduction to Strategies for Organic Synthesis instantly.

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