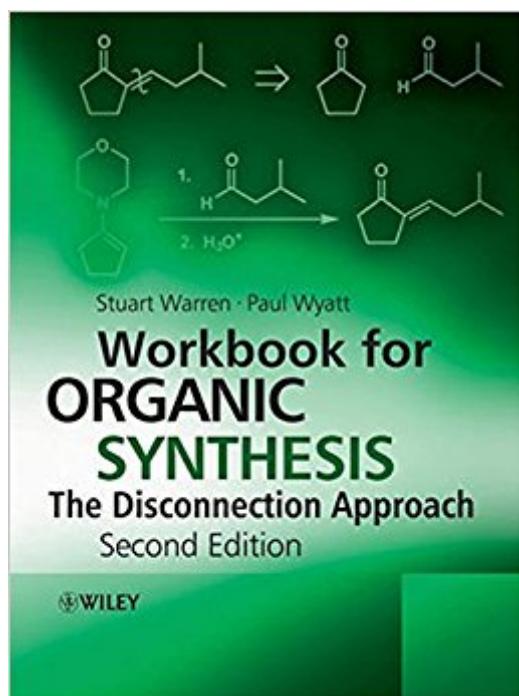


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# Workbook For Organic Synthesis: The Disconnection Approach



## Synopsis

One approach to organic synthesis is retrosynthetic analysis. With this approach chemists start with the structures of their target molecules and progressively cut bonds to create simpler molecules. Reversing this process gives a synthetic route to the target molecule from simpler starting materials. This “disconnection” approach to synthesis is now a fundamental part of every organic synthesis course. *Workbook for Organic Synthesis: The Disconnection Approach*, 2nd Edition This workbook provides a comprehensive graded set of problems to illustrate and develop the themes of each of the chapters in the textbook *Organic Synthesis: The Disconnection Approach*, 2nd Edition. Each problem is followed by a fully explained solution and discussion. The examples extend the student’s experience of the types of molecules being synthesised by organic chemists, and the strategies they employ to control their syntheses. By working through these examples students will develop their skills in analysing synthetic challenges, and build a toolkit of strategies for planning new syntheses. Examples are drawn from pharmaceuticals, agrochemicals, natural products, pheromones, perfumery and flavouring compounds, dyestuffs, monomers, and intermediates used in more advanced synthetic work. Reasons for wishing to synthesise each compound are given. Together the workbook and textbook provide a complete course in retrosynthetic analysis. *Organic Synthesis: The Disconnection Approach*, 2nd Edition There are forty chapters in *Organic Synthesis: The Disconnection Approach*, 2nd Edition: those on the synthesis of given types of molecules alternate with strategy chapters in which the methods just learnt are placed in a wider context. The synthesis chapters cover many ways of making each type of molecule starting with simple aromatic and aliphatic compounds with one functional group and progressing to molecules with many functional groups. The strategy chapters cover questions of selectivity, protection, stereochemistry, and develop more advanced thinking via reagents specifically designed for difficult problems. In its second edition updated examples and techniques are included and illustrated additional material has been added to take the student to the level required by the sequel, *Organic Synthesis: Strategy and Control*. Several chapters contain extensive new material based on courses that the authors give to chemists in the pharmaceutical industry. *Workbook for Organic Synthesis: The Disconnection Approach*, 2nd edition, combined with the main textbook, provides a full course in retrosynthetic analysis for chemistry and biochemistry students, and a refresher course for organic chemists working in industry and academia.

## Book Information

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## Customer Reviews

"The book provides an excellent and pragmatic panorama of the various aspects of disconnection strategies, whilst keeping in mind the importance of protective strategies." (Reviews, December 2010)

One approach to organic synthesis is retrosynthetic analysis. With this approach chemists start with the structures of their target molecules and progressively cut bonds to create simpler molecules. Reversing this process gives a synthetic route to the target molecule from simpler starting materials. This "disconnection" approach to synthesis is now a fundamental part of every organic synthesis course. Workbook for Organic Synthesis: The Disconnection Approach, 2nd Edition This workbook provides a comprehensive graded set of problems to illustrate and develop the themes of each of the chapters in the textbook Organic Synthesis: The Disconnection Approach, 2nd Edition. Each problem is followed by a fully explained solution and discussion. The examples extend the student's experience of the types of molecules being synthesised by organic chemists, and the strategies they employ to control their syntheses. By working through these examples students will develop their skills in analysing synthetic challenges, and build a toolkit of strategies for planning new syntheses. Examples are drawn from pharmaceuticals, agrochemicals, natural products, pheromones, perfumery and flavouring compounds, dyestuffs, monomers, and intermediates used in more advanced synthetic work. Reasons for wishing to synthesise each compound are given. Together the workbook and textbook provide a complete course in retrosynthetic analysis. Organic Synthesis: The Disconnection Approach, 2nd Edition There are forty chapters in Organic Synthesis: The Disconnection Approach, 2nd Edition: those on the

synthesis of given types of molecules alternate with strategy chapters in which the methods just learnt are placed in a wider context. The synthesis chapters cover many ways of making each type of molecule starting with simple aromatic and aliphatic compounds with one functional group and progressing to molecules with many functional groups. The strategy chapters cover questions of selectivity, protection, stereochemistry, and develop more advanced thinking via reagents specifically designed for difficult problems. In its second edition updated examples and techniques are included and illustrated additional material has been added to take the student to the level required by the sequel, *Organic Synthesis: Strategy and Control*. Several chapters contain extensive new material based on courses that the authors give to chemists in the pharmaceutical industry. *Workbook for Organic Synthesis: The Disconnection Approach*, 2nd edition, combined with the main textbook, provides a full course in retrosynthetic analysis for chemistry and biochemistry students, and a refresher course for organic chemists working in industry and academia.

I purchased this book as part of a required text for an advanced organic chemistry class as an undergraduate. Generally I am content. While very adequate in both creativity and complexity of problems, this workbook does one big thing that I dislike: It lists solutions directly after a problem. As a student, I tend to have wandering eyes, and even if I don't, the ability to so easily view the solution to a problem makes it more difficult to truly give my best crack at a problem before viewing a solution. Another minor issue is that it tends to build off itself, so the solutions of later chapter problems will take gratuitous leaps often skipping over steps that it assumes you are expected to know/have mastered. If you intend to buy the companion book (*Organic Synthesis: The Disconnection Approach*), I recommend that you read it all the way through to gain the most out of this workbook.

Very good product

i really had no desire to purchase this book at first, but hindsight has made me thankful, this is a great sidekick to the disconnection approach

Not bad for a review of key disconnections and transformations. Self guided review for any graduate or postdoc, that is easy to follow. The accompanying book is not required.

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Workbook for Organic Synthesis: The Disconnection Approach *Organic Synthesis: The*

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