



# 合成における活性医薬成分： 研究開発における触媒プロセス **Active Pharmaceutical Ingredients in Synthesis: Catalytic Processes in Research and Development**

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Marques , Nicholas J. Turner , Gesine J.  
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プロセス強化、持続可能性、廃棄物の削減、および革新的な方法で特別な焦点を当てて、今日使用されている最も効果的な触媒反応を提示します。

This book demonstrates the importance of efficient catalytic transformations for producing pharmaceutically active molecules. It presents the key catalytic reactions and the most efficient catalytic processes, including their significant advantages over compared previous methods. It also places a strong emphasis on asymmetric catalytic reactions, process intensification (PI), sustainability and waste mitigation, continuous manufacturing processes as enshrined by continuous flow catalysis, and supported catalysis.

Active Pharmaceutical Ingredients in Synthesis: Catalytic Processes in Research and Development offers chapters covering: Catalysis and Prerequisites for the Modern Pharmaceutical Industry Landscape; Catalytic Process Design - The Industrial Perspective; Hydrogenation, Hydroformylation and Other Reductions; Oxidation; ; Catalytic Addition Reactions; Catalytic Cross-Coupling Reactions; Catalytic Metathesis Reactions; Catalytic Cycloaddition Reactions: Coming Full-Circle; Catalytic Cyclopropanation Reactions; Catalytic C-H insertion Reactions; Phase Transfer Catalysis; and Biocatalysis.

- Provides the reader with an updated clear view of the current state of the challenging field of catalysis for API production
- Focuses on the application of catalytic methods for the synthesis of known APIs
- Presents every key reaction, including Diels-Alder, CH Insertions, Metal-catalytic coupling-reactions, and many more
- Includes recent patent literature for completeness

Covering a topic of great interest for synthetic chemists and R&D researchers in the pharmaceutical industry, Active Pharmaceutical Ingredients in Synthesis: Catalytic Processes in Research and Development is a must-read for every synthetic chemist working with APIs.

## CONTENTS:

1 Catalysis and Prerequisites for the Modern Pharmaceutical Industry	
2 Catalytic Process Design: The Industrial Perspective	31
3 Hydrogenation, Hydroformylation, and Other Reductions	75
4 Oxidation: Nobel Prize Chemistry Catalysis	113
5 Catalytic Addition Reactions	147
6 Catalytic Cross - Coupling Reactions - Nobel Prize Catalysis	175
7 Catalytic Metathesis Reactions: Nobel Prize Catalysis	259
8 Catalytic Cycloaddition Reactions: Coming Full Circle	291
9 Catalytic Cyclopropanation Reactions	321
10 Catalytic C-H Insertion Reactions	341
11 Phase - Transfer Catalysis	359
12 Biocatalysis	387

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