



# Biocatalysis for Green Chemistry and Chemical Process Development

From Wiley

Download now

Read Online 

## Biocatalysis for Green Chemistry and Chemical Process Development From Wiley

This book describes recent progress in enzyme-driven green syntheses of industrially important molecules. The first three introductory chapters overview recent technological advances in enzymes and cell-based transformations, and green chemistry metrics for synthetic efficiency. The remaining chapters are directed to case studies in biotechnological production of pharmaceuticals (small molecules, natural products and biologics), flavors, fragrance and cosmetics, fine chemicals, value-added chemicals from glucose and biomass, and polymeric materials.

The book is aimed to facilitate the industrial applications of this powerful and emerging green technology, and catalyze the advancement of the technology itself.

 [Download Biocatalysis for Green Chemistry and Chemical Proc ...pdf](#)

 [Read Online Biocatalysis for Green Chemistry and Chemical Pr ...pdf](#)

# Biocatalysis for Green Chemistry and Chemical Process Development

From Wiley

## Biocatalysis for Green Chemistry and Chemical Process Development From Wiley

This book describes recent progress in enzyme-driven green syntheses of industrially important molecules. The first three introductory chapters overview recent technological advances in enzymes and cell-based transformations, and green chemistry metrics for synthetic efficiency. The remaining chapters are directed to case studies in biotechnological production of pharmaceuticals (small molecules, natural products and biologics), flavors, fragrance and cosmetics, fine chemicals, value-added chemicals from glucose and biomass, and polymeric materials.

The book is aimed to facilitate the industrial applications of this powerful and emerging green technology, and catalyze the advancement of the technology itself.

## Biocatalysis for Green Chemistry and Chemical Process Development From Wiley Bibliography

- Sales Rank: #5539424 in Books
- Published on: 2011-08-30
- Original language: English
- Number of items: 1
- Dimensions: 9.60" h x 1.25" w x 6.40" l, 1.90 pounds
- Binding: Hardcover
- 496 pages

 [Download Biocatalysis for Green Chemistry and Chemical Proc ...pdf](#)

 [Read Online Biocatalysis for Green Chemistry and Chemical Pr ...pdf](#)

## Download and Read Free Online Biocatalysis for Green Chemistry and Chemical Process Development From Wiley

---

### Editorial Review

#### Review

“Therefore, this book is a valuable compendium for researchers and users of biocatalysis from both, the academic and the industrial world.” (*Catal Lett*, 1 March 2013)

“This book is well organised, containing most key subjects one would expect in the multiple research areas of biocatalysis. It is suitable for graduate level students, postdocs, and industrial researchers. It also can be regarded as an auxiliary textbook for students who wish to know the pros and cons of biocatalysis in chemical processes, and what the future holds for the development of biotechnology in green chemistry.” (*Chemistry World*, 2012)

#### From the Back Cover

Biocatalysis for Green Chemistry and Chemical Process Development offers an exciting alternative to today's complex, multidisciplinary approach to green chemistry by focusing exclusively on the most potent weapon in this field's arsenal—biocatalysis. In-depth coverage details the technological advances being made in biocatalysis-driven green syntheses of industrially important molecules, as well as how these advances show great promise in streamlining current chemical processes for reducing or eliminating hazardous substances. In addition, coverage of the biotechnological production of pharmaceuticals (small molecules, natural products and biologics), flavors, fragrance and cosmetics, fine chemicals, and more underscore the book's main goal of facilitating industrial applications of this powerful and pioneering green technology. Highlights include:

- A variety of case studies, not only in pharmaceuticals and fine chemicals, but also specialty and bulk chemicals and polymers
- A comprehensive overview of green chemistry applications of enzyme-driven transformations for a wide range of industries
- A look at the application of biocatalysis across a wide range of chemical manufacturing fields, and why it is a good sustainable manufacturing option

Biocatalysis is emerging as a transformational technology uniquely suited to deliver green chemistry solutions for safer, efficient, and more cost-effective chemical synthesis. Biocatalysis for Green Chemistry and Chemical Process Development serves a key role in promoting this significant and potentially world-changing technology—and offers valuable perspective on achieving widespread sustainable industrial practices.

#### About the Author

**JUNHUA (Alex) TAO** is currently CEO of Metabomics, Inc. Prior to that; he was the CSO of Elevance Renewable Sciences, and the creator and head of the Biotransformations Group at Pfizer, where he was also a core member of the API Development Team. He co-authored over 60 publications including “Biocatalysis for the Pharmaceutical Industry” (Wiley, 2009) and co-invented over 20 patents. In addition, he was the

recipient of the Pfizer Achievement Award, the Pfizer Green Chemistry Award, and a key member of the Lyrica process development team, which won the IChemE Award for Excellence in Green Chemistry and Engineering (2006).

**ROMAS JOSEPH KAZLAUSKAS** is Professor of Biochemistry, Molecular Biology and Biophysics at the BioTechnology Institute of the University of Minnesota, Twin Cities. He is the coauthor of over eighty papers and reviews, and the book *Hydrolases in Organic Synthesis*. He also served as the co-chair of two Gordon Research Conferences, one on biocatalysis and one on green chemistry.

## Users Review

### From reader reviews:

#### **Jimmy Martinez:**

Do you have something that you want such as book? The reserve lovers usually prefer to choose book like comic, quick story and the biggest you are novel. Now, why not attempting Biocatalysis for Green Chemistry and Chemical Process Development that give your enjoyment preference will be satisfied by reading this book. Reading practice all over the world can be said as the opportunity for people to know world far better than how they react to the world. It can't be claimed constantly that reading practice only for the geeky man or woman but for all of you who wants to be success person. So, for every you who want to start reading as your good habit, it is possible to pick Biocatalysis for Green Chemistry and Chemical Process Development become your own personal starter.

#### **Margaret Velasquez:**

Your reading sixth sense will not betray an individual, why because this Biocatalysis for Green Chemistry and Chemical Process Development e-book written by well-known writer whose to say well how to make book which might be understand by anyone who else read the book. Written throughout good manner for you, dripping every ideas and composing skill only for eliminate your own personal hunger then you still doubt Biocatalysis for Green Chemistry and Chemical Process Development as good book not simply by the cover but also by content. This is one guide that can break don't ascertain book by its deal with, so do you still needing another sixth sense to pick this specific!? Oh come on your reading sixth sense already said so why you have to listening to an additional sixth sense.

#### **Donald Wexler:**

Are you kind of stressful person, only have 10 or even 15 minute in your day time to upgrading your mind skill or thinking skill actually analytical thinking? Then you are having problem with the book than can satisfy your short space of time to read it because this all time you only find guide that need more time to be go through. Biocatalysis for Green Chemistry and Chemical Process Development can be your answer because it can be read by you actually who have those short free time problems.

**Loren Hatmaker:**

You will get this Biocatalysis for Green Chemistry and Chemical Process Development by go to the bookstore or Mall. Only viewing or reviewing it might to be your solve challenge if you get difficulties for ones knowledge. Kinds of this e-book are various. Not only through written or printed but can you enjoy this book by simply e-book. In the modern era such as now, you just looking because of your mobile phone and searching what their problem. Right now, choose your own personal ways to get more information about your e-book. It is most important to arrange yourself to make your knowledge are still update. Let's try to choose suitable ways for you.

**Download and Read Online Biocatalysis for Green Chemistry and Chemical Process Development From Wiley #RWFPQHKIAD6**

# **Read Biocatalysis for Green Chemistry and Chemical Process Development From Wiley for online ebook**

Biocatalysis for Green Chemistry and Chemical Process Development From Wiley Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Biocatalysis for Green Chemistry and Chemical Process Development From Wiley books to read online.

## **Online Biocatalysis for Green Chemistry and Chemical Process Development From Wiley ebook PDF download**

**Biocatalysis for Green Chemistry and Chemical Process Development From Wiley Doc**

**Biocatalysis for Green Chemistry and Chemical Process Development From Wiley MobiPocket**

**Biocatalysis for Green Chemistry and Chemical Process Development From Wiley EPub**