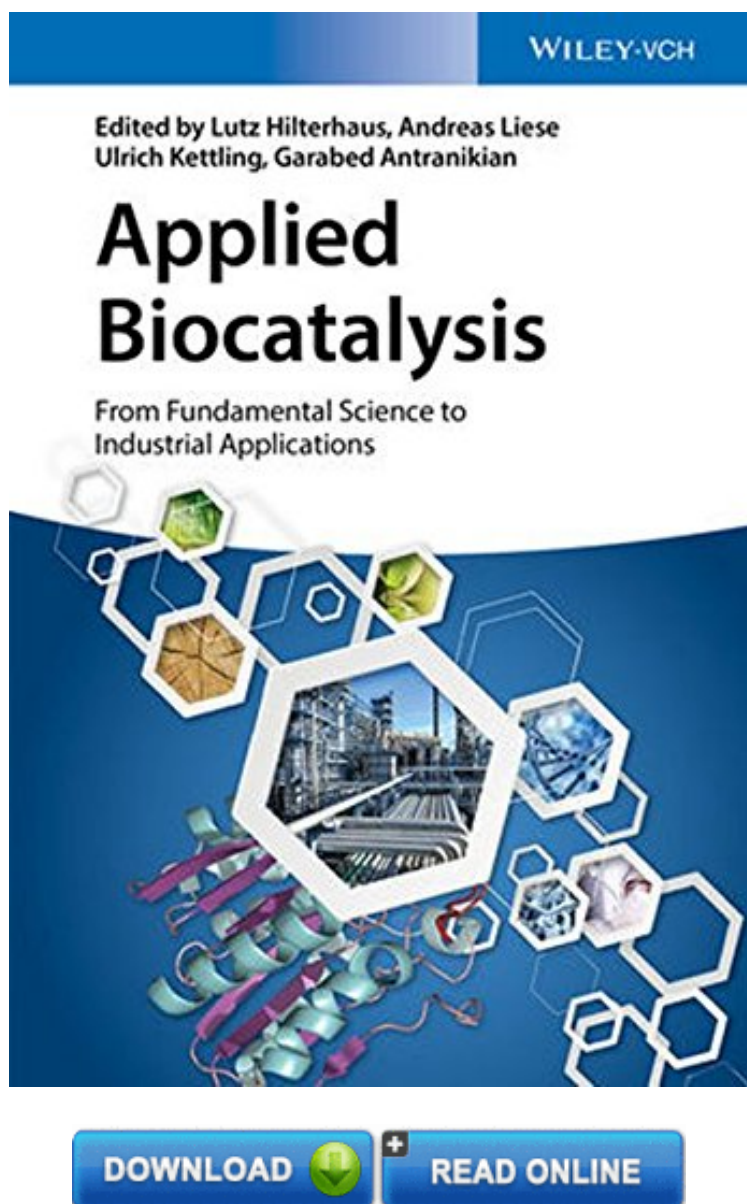


Applied Biocatalysis: From Fundamental Science to Industrial Applications

From Wiley-VCH

*DOC | *audiobook | ebooks | Download PDF | ePub*



#7487024 in Books 2016-09-13 Original language: English 9.80 x 1.10 x 6.70l, 1.74 #File Name: 3527336699464 pages | File size: 38.Mb

From Wiley-VCH : Applied Biocatalysis: From Fundamental Science to Industrial Applications before purchasing it in order to gauge whether or not it would be worth my time, and all praised Applied Biocatalysis: From Fundamental Science to Industrial Applications:

This reference book originates from the interdisciplinary research cooperation between academia and industry. In three

distinct parts, latest results from basic research on stable enzymes are explained and brought into context with possible industrial applications. Downstream processing technology as well as biocatalytic and biotechnological production processes from global players display the enormous potential of biocatalysts. Application of "extreme" reaction conditions (i.e. unconventional, such as high temperature, pressure, and pH value) - biocatalysts are normally used within a well defined process window - leads to novel synthetic effects. Both novel enzyme systems and the synthetic routes in which they can be applied are made accessible to the reader. In addition, the complementary innovative process technology under unconventional conditions is highlighted by latest examples from biotech industry.

From the Back Cover This book originates from several interdisciplinary research cooperation between academia and industry. In three distinct parts, the latest results from research on stable enzymes are explained and brought into context with possible industrial applications. Application of unconventional reaction conditions next to the well-known process windows of biocatalysts open up novel synthetic routes. Both novel enzyme systems and the synthetic routes in which they can be applied are made accessible to the reader. In addition, complementary innovative process technologies are highlighted by latest examples from biotech industry. Examples of downstream processing technology as well as biocatalytic and biotechnological production processes from global players display the enormous potential of biocatalysts.

About the Author Dr. Lutz Hilterhaus carried out his studies of chemistry at the University Mnster before moving to Hamburg. Having obtained his PhD from the Hamburg University of Technology (TUHH) in the working group of Prof. Liese in 2008, he spent one year with Prof. Bornscheuer at the University Greifswald before taking up the possibility to start as a Junior Group Leader at the Institute of Technical Biocatalysis at the TUHH. Dr. Lutz Hilterhaus finalized his habilitation in 2016 and has authored over 30 scientific publications and has received the "Karl-Heinz-Ditze Preis fr besondere Leistungen in den Ingenieurwissenschaften" in 2008. Dr. Andreas Liese is Professor at the Hamburg University of Technology, where he is head of the Institute of Technical Biocatalysis. He studied chemistry at the University of Bonn, Germany, and carried out his doctoral research at the Research Center Jlich, Germany. From 1998 to 2003 he was head of the Enzyme Group within the Institute of Biotechnology II (Prof. Dr. C. Wandrey), Research Center Jlich. During a sabbatical in 2000 at Pfizer Global Research Development, San Diego, USA, he there initiated a RD group on biocatalysis. From 2003 to 2004 he worked as associate professor at the University of Mnster. In 2003 Liese received the Award of Up-and-Coming Teacher in Higher Education in the field of biotechnology (DECHEMA, Germany). Since 2014 he is elected member of the steering committee of the DECHEMA e.V. Dr. Ulrich Kettling is Global Director and Head of Market Segment Industrial Enzymes at Clariant. Before he was Head of Biotechnology RD and Global Director Biotechnology and Biorefinery at Clariant and Sd-Chemie. Before joining Sd-Chemie, Dr. Kettling was co-founder and Chief Scientific Officer of Direvo Biotech AG. Dr. Kettling graduated in Biotechnology at the Technical University Braunschweig and obtained his PhD at the Max Planck Institute for Biophysical Chemistry in Gttingen. Dr. Garabed Antranikian is Professor at the Hamburg University of Technology, where he is head of the Institute of Technical Microbiology. He studied Biology at the American University in Beirut. At the University of Gttingen he completed his PhD in Microbiology in 1980 in the laboratory of Professor Gerhard Gottschalk and qualified as a post-doctoral lecturer (Habilitation) in 1988. In 1989 he was appointed to a professorship in Microbiology at the Hamburg University of Technology. He was president of the International Society for Extremophiles and is chief editor of the scientific journal Extremophiles. In 2004 he was awarded the most prestigious prize for environment protection by the president of the Federal Republic of Germany. Since 2007 he is the coordinator of the "Biocatalysis2021" Cluster and the "Biorefinery2021" Cluster of the Ministry of Education and Research and he is chairman of IBN Industrial Biotechnology North. Since 2011 he is the president of Hamburg University of Technology.