Microbial Biotechnology: Fundamentals of Applied Microbiology

Alexander N. Glazer, Hiroshi Nikaido
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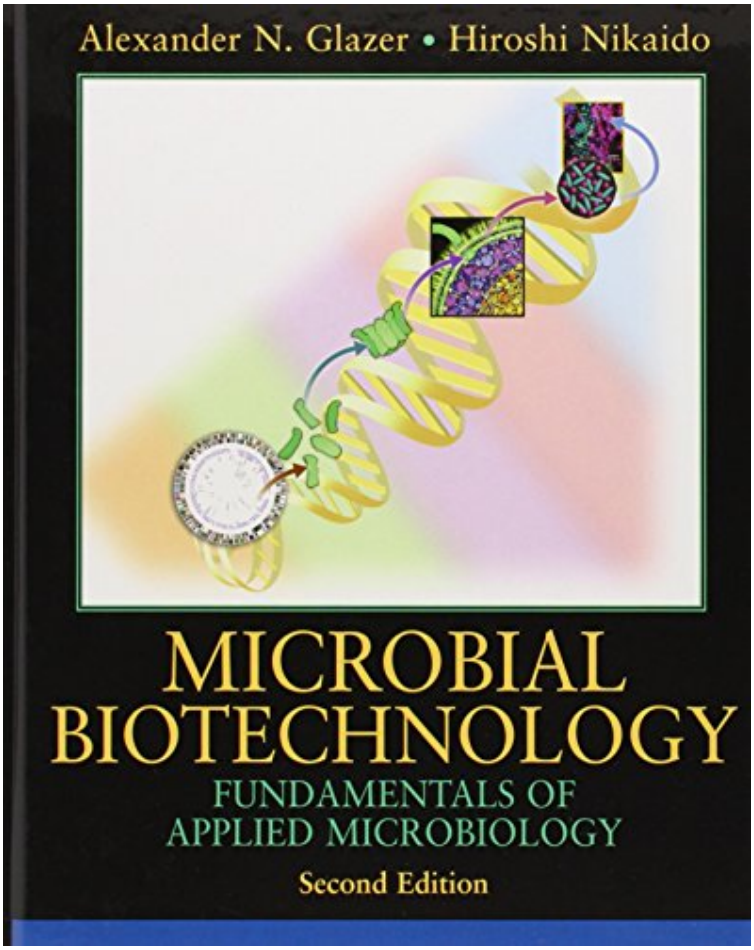

#1522080 in Books Cambridge University Press 2007-10-01Original language:EnglishPDF # 1 9.96 x 1.38 x 7.99l, 3.36 #File Name: 0521842107576 pages | File size: 76.Mb

Alexander N. Glazer, Hiroshi Nikaido : Microbial Biotechnology: Fundamentals of Applied Microbiology before purchasing it in order to gage whether or not it would be worth my time, and all praised Microbial Biotechnology: Fundamentals of Applied Microbiology:

0 of 0 people found the following review helpful. Total ripoff on the publishers endBy StarlaThis book is a complete rip off. For $86 it should be printed entirely in color. This book contains many protein structures that would be so much easier to interpret if they were printed in color, but instead they decided to put in a few (I've only found 2 after flipping through the book several times) color pictures. And the printing on those is incredibly grainy. For some unknown reason, the authors also decided not to print the chapter number on each page. This is going to make it a lot more difficult to find information in the book as I study over the upcoming semester. This is a perfect example of how outrageous and unfairly textbooks are priced. I recognize that information wise, this is a top textbook in the field, but if the publishers are going to skimp on the printing I would prefer that they passed the savings to me, rather than pocketing the extra cash.See my photos for the uninformative chapter headings and grainy color printing.

Knowledge in microbiology is growing exponentially through the determination of genomic sequences of hundreds of microorganisms and the invention of new technologies such as genomics, transcriptomics, and proteomics, to deal with this avalanche of information. These genomic data are now exploited in thousands of applications, ranging from those in medicine, agriculture, organic chemistry, public health, biomass conversion, to biomining. Microbial Biotechnology. Fundamentals of Applied Microbiology focuses on uses of major societal importance, enabling an in-depth analysis of these critically important applications. Some, such as wastewater treatment, have changed only modestly over time, others, such as directed molecular evolution, or 'green' chemistry, are as current as today's headlines. This fully revised second edition provides an exciting interdisciplinary journey through the rapidly changing landscape of discovery in microbial biotechnology. An ideal text for courses in applied microbiology and biotechnology courses, this book will also serve as an invaluable overview of recent advances in this field for professional life scientists and for the diverse community of other professionals with interests in biotechnology.

"A wonderful text for modern day study of microbes and their fantastic activities. It brings together so many aspects of microbes including their diversity, metabolism, genetics, etc., etc., etc. I wish I had such a book at my side when I was a student. The text will bring the wonders of microbiology to the student in a way that he/she will never forget." PROFESSOR ARNOLD L. DEMAIN Founder of Fermentation Microbiology Dept.,Merck Co., Inc.; Formerly Professor of Industrial Microbiology, MIT; Past President,Society for Industrial Microbiology"The second edition of Glazer and Nikaido's Microbial Biotechnology provides an essential intellectual link between the breakthroughs of the last ten years in our understanding of the fundamental processes that drive microbial function and the application of this knowledge to the technological challenges faced by society. The book is unique in the clarity with which specific industrial problems are delineated and in the cogent description of how current technology provides solutions. The range of subjects covered in this volume is astounding. They extend from microbial metabolites, antibiotics and polymers to recombinant vaccine production and enzyme and metabolic engineering. The basic scientific principles involved in associated areas, from microbial genetics to transgenic plant production and the world of 'Omics are presented in a straight forward manner so that a reader with some general biology background can grasp the the concepts and their application. In addition enough details and useful references are provided to engage the most sophisticated reader. Microbial Biotechnology fills the void generated by the absence of a suitable scientifically sophisticated text for an advanced undergraduate or graduate course in Biotechnology. It will also be a required addition to the library of all of those associated with industrial microbiology and the biotechnology and pharmaceutical industries including the research workers, patent lawyers, regulatory agents and even an occasional venture capitalist." MELVIN I. SIMON Biaggini Professor of Biology, California Institute of Technology; Founder of the microbial biotechnology company Diversa"Microbial Biotechnology comprehensively covers both the basics and complexities of the microbial world as it applies to biotechnology. Having the biochemical structures in place along with descriptive paragraphs of microbial facts is an added value in teaching students the amazing and wonderful capabilities of these invisible strangers and friends. From microbial diversity to recombinant and synthetic vaccines to primary and secondary metabolites to environmental applications, Microbial Biotechnology embraces the reader with both the primary foundations of microbiology to the latest advanced microbial methods being practiced in laboratories around the world. Reading the book reminded me as to why I became a applied microbiologist in the first place." JENNIE HUNTER-CEVERA President University of Maryland Biotechnology Institute; Past President, Society for Industrial Microbiology"The application of science to practical problems of humanity has at times been approached with an air of apology. No longer. Biotechnology, especially of the microbiological variety is so closely linked to its scientific roots as to make for a seamless continuum. Nowhere is this more vividly demonstrated than in the second edition of Microbial Biotechnology, written by two leading scientists who have made stellar contributions to microbiology and biochemistry. This book, based on their authoritative insights and experience, unites the "bio" and "technology" in a masterful way. This is what we expected from the update of a classic in its field." MOSELIO SCHAECHTER Distinguished Professor, Emeritus, Tufts University School of Medicine; Past President, American Society for Microbiology"Microbial Biotechnology is engrossing to read, and will be appreciated by anyone wishing to better understand the diverse means by which microbes are being exploited to solve biomedical, food, energy, and environmental problems." K.A. Newman, Choice MagazineAbout the AuthorAlexander N. Glazer is professor of the graduate school in the Department of Molecular and Cell Biology at the University of California, Berkeley.Hiroshi Nikaido is professor of Biochemistry Molecular Biology in the Department of Molecular and Cell Biology at the University of California, Berkeley.