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| Descrizione fisica | 1 online resource (589 pages) |
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| Soggetti | Industrial microbiology<br>Biotechnology<br>Microbial genetics<br>Fungi<br>Mycology<br>Microbiology<br>Industrial Microbiology<br>Microbial Genetics |
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| Nota di contenuto | Chapter 1. Construction of the Improved Producers of 1st and 2nd Generation Ethanol in Conventional and Non-Conventional Yeasts -- Chapter 2. Thermotolerant Yeasts and High-Temperature Fermentation -- Chapter 3. Functional Amino Acid Engineering: A New Breeding Technology for Brewer’s Yeasts -- Chapter 4. Dehydration of Yeasts and Anhydrobiosis. - Chapter 5. Glycerol Production and Conversion in Yeasts and Biotechnological Significance of these Processes -- Chapter 6. Lipids of Yeasts and Filamentous Fungi and Their Importance for Biotechnology -- Chapter 7. Development of Yeast Saccharomyces Platform for Production of Biofuels and Bio-Based Products -- Chapter 8. Biotechnological Production and Applications of Fungal Carotenoids -- Chapter 9. Ribolflavin Overproduction in Yeasts and Filamentous Fungi -- Chapter 10. Mrakia spp. Yeasts: Extremophilic Organisms with Underexplored Biotechnological Potential -- Chapter 11. Production of Recombinant Proteins in the Methylotrophic Yeasts -- Chapter 12. |

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| | Biosensors Based on Yeast/Fungal Cells -- Chapter 13. Yeast-Based Biosensors for Clinical Diagnostics, Food Control and Environmental Safety -- Chapter 14. Production of Industrially Relevant Organic Acids by Yeasts and Filamentous Fungi. |
| Sommario/riassunto | This updated and extended second edition provides a comprehensive overview on biotechnological applications of unicellular and multicellular fungi in a variety of industrial settings. Each chapter is dedicated to applications and potential beneficial use of particular strains of yeasts and filamentous fungi and their produced biomolecules, ranging from glycerol to carotenoids. This new edition further includes a brand-new chapter on lactic acid production in yeast. Targeted genetic and metabolic engineering of fungi allows production of native and transgenic enzymes and proteins in industrial scales. Those most prominently find application in biorefineries for the production of value-added chemicals and biofuels, in the pharmaceutical industry as well as in biomedicine. This volume addresses researchers from both academia and industry, and graduate students working in microbial biotechnology. |