

1. Record Nr.	UNINA9910253921203321
Titolo	Biotechnology of Yeasts and Filamentous Fungi // edited by Andriy A. Sibirny
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-58829-X
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (VIII, 412 p. 48 illus., 21 illus. in color.)
Disciplina	579.135
Soggetti	Microbial genetics Industrial microbiology Fungi Mycology Microbiology Microbial Genetics Industrial Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1.Genetic improvement of conventional and non-conventional yeasts for the production of 1st and 2nd generation ethanol -- 2.High-temperature bio-ethanol fermentation by conventional and non-conventional yeasts -- 3.Construction of baker's yeast strains with enhanced tolerance to baking-associated stresses -- 4.Anhydrobiosis and dehydration of yeasts -- 5.Biotechnology of glycerol production and conversion in yeasts -- 6.Lipids of yeasts and filamentous fungi and their importance for biotechnology -- 7.Production of Organic Acids by Yeasts and Filamentous Fungi -- 8.Carotenoid production by filamentous fungi and yeasts -- 9.Molecular studies of the flavinogenic fungus <i>Ashbya gossypii</i> and the flavinogenic yeast <i>Candida famata</i> -- 10.Cold-active enzymes from cold-adapted yeasts -- 11. Methylophilic yeasts as producers of recombinant proteins -- 12. Biosensors based on yeast/fungal cells -- 13.East-Based Systems For Environmental Control -- 14.Yeast-Based Biosensors For Clinical Diagnostics And Food Control.

This book provides a comprehensive overview on biotechnological applications of unicellular and multicellular fungi in a variety of industrial branches. 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. Each chapter is dedicated to applications and potential beneficial use of particular strains of yeasts and filamentous fungi and their produced biomolecules. The book targets researchers from both academia and industry and graduate students working in microbial biotechnology.
