

1. Record Nr.	UNINA9910349518703321
Titolo	Solid State Fermentation : Research and Industrial Applications // edited by Susanne Steudler, Anett Werner, Jay J. Cheng
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-23675-7
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VIII, 172 p. 80 illus., 40 illus. in color.)
Collana	Advances in Biochemical Engineering/Biotechnology, , 0724-6145 ; ; 169
Disciplina	660.28449
Soggetti	Biotechnology Chemical engineering Environmental engineering Microbiology Industrial Chemistry/Chemical Engineering Environmental Engineering/Biotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cultivation of Medicinal Mushroom Biomass by Solid-State Bioprocessing in Bioreactors -- Design and Operation of a Pilot-Scale Packed-Bed Bioreactor for the Production of Enzymes by Solid-State Fermentation -- It Is the Mix that Matters: Substrate-Specific Enzyme Production from Filamentous Fungi and Bacteria Through Solid-State Fermentation -- Aroma Profile Analyses of Filamentous Fungi Cultivated on Solid Substrates -- Stimulating Production of Pigment-Type Secondary Metabolites from Soft Rotting Wood Decay Fungi ("Spalting" Fungi) -- Fermented Solids and Their Application in the Production of Organic Compounds of Biotechnological Interest -- Solid-State Anaerobic Digestion for Waste Management and Biogas Production.
Sommario/riassunto	This book reviews the wide range of products and applications of solid state fermentation as well as the development of this cultivation technology over the last years. In this book, readers will also learn about the challenges of solid state fermentation, including process

management, reactor design, scale-up and the formation of process-specific products. Solid fermentation is a traditional cultivation technique of food technology and involves all cultivations of microorganisms on a solid substrate without free liquid phase. In the course of development of Biotechnology it was replaced by liquid cultivation mainly in the western countries. Over the past few years, solid-state fermentation is now becoming more important and has moved more back into focus. Especially, it is suitable for the cultivation of filamentous organisms, like ascomycetes and basidiomycetes, but also for various yeasts and bacteria. The products and applications of solid-state fermentation are as diverse as the microorganisms. They range from enzyme production to the production of antibiotics and pigments to the use in environmental technology and energy production.
