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Titolo	Current Advances in Biotechnological Production of Xylitol : Fermentative Production of Xylitol / / edited by Maria das Graças de Almeida Felipe, Anuj Kumar Chandel
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-04942-X
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (261 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	613.283 660.63
Soggetti	Biotechnology Microbiology Chemical engineering Agricultural genome mapping Biomaterials Chemical Process Engineering Agricultural Genetics Plant Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Methods for hemicellulose deconstruction aiming to xylose recovery: Recent progress and future perspectives -- Detoxification of hemicellulosic hydrolysates for improved xylitol production -- Fermentative production of xylitol from various lignocellulosic hydrolysates -- Strain improvement methods for enhanced xylitol production -- Fermentative methods for xylitol production: a comparative account on batch, fed-batch and continuous fermentation -- Methods for xylitol recovery: appraisal and future perspectives -- Critical analysis on xylitol production employing integrated approaches in sugarcane and corn processing mills -- Techno-economic analysis of xylitol production in standalone and integrated biorefineries -- Applications of xylitol in food, health and medical sector -- Market, consumption trends and commercial status of xylitol production.

Sommario/riassunto

This book explores recent advances in the microbial production of xylitol and its applications in food and medical sector. Xylitol is an important biomolecule from lignocellulose biorefinery which is produced from the xylose by chemical reactions or microbial fermentation methods. Currently, the demand of xylitol at commercial scale is being met through chemical methods. However, recent breakthroughs made in plant cell wall destruction, genetic engineering to develop the designer microorganisms, fermentation methods and media formulations and downstream processing have led the ways for sustainable production of xylitol at commercial scale in lignocellulose biorefineries. Microbial production of xylitol is preferred over the chemical processes as it is environmentally friendly, higher process efficiency with the desired product yield, and product recovery with minimum impurities. This book is a unique compilation of 11 book chapters written by experts in their respective fields. These chapters present critical insights and discuss the current progress and future progress in this area into fermentative xylitol production. Chapter 9 is licensed under the terms of the Creative Commons Attribution 4.0 International License. For further details see license information in the chapter.

2. Record Nr. UNINA9910164694303321

Titolo	New approaches to monitoring aquatic eco-systems : a symposium / / sponsored by ASTM Committee E-47 on Biological Effects and Environmental Fate and by the Ecological Society of America, Minneapolis, MN, 17-21 June 1985 ; Terence P. Boyle, editor
Pubbl/distr/stampa	Philadelphia, PA, : ASTM, c1987
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Descrizione fisica	1 online resource (xii, 208 p.) : ill. ;
Collana	ASTM special technical publication New approaches to monitoring aquatic eco-systems ASTM special technical publication ; ; 940
Altri autori (Persone)	BoyleTerence P
Disciplina	574.5/263/028
Soggetti	Aquatic ecology - Technique Environmental monitoring Environmental Monitoring - methods Marine Biology Aquatic ecology - Congresses - Technique Oceanography Hydrobiology Environmental Exposure Public Health Practice Earth Sciences Ecology Public Health Environmental Pollution Environment and Public Health Natural Science Disciplines Biology Biological Science Disciplines Delivery of Health Care Occupations Environmental Monitoring Earth & Environmental Sciences Conference Proceedings. Conference papers and proceedings.
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