



APPLICATION OF BIOTECHNOLOGY IN PULP AND PAPER PROCESSING

Edited by: **Preethi Kartan**

Biotechnology For Pulp And Paper Processing

Tao Wei



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Biotechnology for Pulp and Paper Processing Pratima Bajpai, 2011-11-24 This book provides the most up to date information available on various biotechnological processes useful in the pulp and paper industry Each of the twenty chapters covers a specific biotechnological process or technique discussing the advantages limitations and future prospects of the most important and popular processes used in the industry Topics covered include tree improvement pulping bleaching deinking fiber modification biosolids management and biorefining Biotechnology for Pulp and Paper Processing, 2011-11-25

Biotechnology for Pulp and Paper Processing Pratima Bajpai, 2018 This is the most comprehensive and up to date treatment of all aspects of biotechnology in the processing of pulp and paper Each chapter covers a discrete process or technique assessing the advantages and limitations of as well as the prospects for each **Biotechnology for Pulp and Paper Processing** Pratima Bajpai, 2018-02-14 The book provides the most up to date information available on various biotechnological processes useful in the pulp and paper industry The first edition was published in 2011 covering a specific biotechnological process or technique discussing the advantages limitations and prospects of the most important and popular processes used in the industry Many new developments have taken place in the last five years warranting a second edition on this topic The new edition contains about 35% new material covering topics in Laccase application in fibreboard biotechnology in forestry pectinases in papermaking stickies control with pectinase products from hemicelluloses value added products from biorefinery lignin use of enzymes in mechanical pulping Biotechnology for Pulp and Paper Processing Pratima Bajpai, 2018-12-29 The book provides the most up to date information available on various biotechnological processes useful in the pulp and paper industry The first edition was published in 2011 covering a specific biotechnological process or technique discussing the advantages limitations and prospects of the most important and popular processes used in the industry Many new developments have taken place in the last five years warranting a second edition on this topic The new edition contains about 35% new material covering topics in Laccase application in fibreboard biotechnology in forestry pectinases in papermaking stickies control with pectinase products from hemicelluloses value added products from biorefinery lignin use of enzymes in mechanical pulping **Pulp and Paper Industry** Pratima Bajpai, 2016-01-22 Pulp and Paper Industry Energy Conservation presents a number of energy efficient technologies and practices that are cost effective and available for implementation today Emerging energy efficient technologies and future prospects in this field are also dealt with Qualitative and quantitative results data on energy savings for various steps of pulp and paper making process are presented There is no specific book on this topic This will be a comprehensive reference in the field Thorough and in depth coverage of energy efficient technologies and practices in paper and pulp industry Presents cost effective and available for implementation today technologies Discusses Biotechnological processes especially enzymatic processes in the pulp and paper industry to reduce the energy consumption and improve the product quality Presents

qualitative and quantitative results data on energy savings for various steps of pulp and paper making process

Application of Biotechnology in Pulp and Paper Processing Preethi Kartan, 2018-12 Application of Biotechnology in Pulp and Paper Processing describes the techniques like enzymes engineering molecular biology proteomics genetic engineering genomics along with metabolomics and bioinformatics These biotechniques in 21st century have helped in development of pulp and paper sector in terms of economic feasibility and designing As described biotechnology is known for increasing cost efficiency product quality and developing environment friendly processes Further readers have been provided with some extended topics like Biodegradation of Endocrine Disrupting chemicals and residual organic pollutants of pulp and paper mill effluent by bio stimulation

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Green Pulp and Paper Industry Amit Kumar, Puneet Pathak, Dharm Dutt, 2021-07-19 This book provides recent developments and future perspectives of pulp and paper processing based on biotechnology to replace conventional environmental unfriendly chemical processes The use of microorganism and microbial enzymes in various processes such as bleaching deinking refining dissolving pulp debarking pitch removal slime control wastewater treatment and waste material valorisation are discussed

Biovalorisation of Wastes to Renewable Chemicals and Biofuels Navanietha Krishnaraj Rathinam, Rajesh Sani, 2019-10-15 Biovalorisation of Wastes to Renewable Chemicals and Biofuels addresses advanced technologies for converting waste to biofuels and value added products Biovalorisation has several advantages over conventional bioremediation processes as it helps reduce the costs of bioprocesses Examples are provided of several successfully commercialized technologies giving insight into developing potential processes for biovalorisation of different wastes Different bioprocess strategies are discussed for valorising the wastes coming from the leather industry olive oil industry pulp and paper winery textile and food industries as well as aquaculture A section on biorefinery for hydrocarbons and emerging contaminants is included to cover concepts on biodesulfurization of petroleum wastes leaching of heavy metals from E waste and bioelectrochemical processes for CO₂ Chapters on algal biorefinery are also included to focus on the technologies for conversion of CO₂ sequestration and wastewater utilization Biovalorisation of Wastes to Renewable Chemicals and Biofuels can be used as course material for graduate students in chemical engineering chemistry and biotechnology and as a reference for industrial professionals and researchers who want to gain a basic understanding on the

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