1. Record Nr. UNINA9910437839303321

Titolo	Biofuel Technologies : Recent Developments / / edited by Vijai Kumar Gupta, Maria G. Tuohy
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	1-299-33625-6 3-642-34519-0
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (532 p.)
Disciplina	662.88
Soggetti	Microbiology Renewable energy resources Agriculture Biotechnology Applied Microbiology Renewable and Green Energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Second Generation Bio-ethanol and Renewable Chemicals from Lignocellulosics -- Potential Bio-resources as Future Sources of Biofuels Production: An Overview -- The Role of Fungal Enzymes in Global Biofuel Production and Biorefinery -- Progress in Physical and Chemical Pretreatment of Lignocellulosic Biomass -- Acid Pretreatment Technologies and SEM Analysis of Treated Grass Biomass in Biofuel Processing -- Progress on Enzymatic Saccharification Technologies for Biofuels Production -- Fermentative Bio-hydrogen Production using Microbial Consortia -- Bio-hydrogen As Biofuel: Future Prospects and Avenues for Improvements -- Biohydrogen Production From Microalgae -- Microbial Glycoside Hydrolases for Biomass Utilization in Biofuels Applications -- Microbial Fuel Cells for Sustainable Bioenergy Generation: Principles and Perspective Applications -- Biomethanation Potential of Biological and Other Wastes -- Production of Bioethanol from Biomass: An Overview -- Biobutanol Production from Biomass -- Developing Cellulolytic Organisms for Consolidated Bioprocessing of

Lignocellulosics -- Life-cycle Environmental Impacts of Biofuels and Co-products -- Sustainability Assessment of Palm Biodiesel Production in Thailand -- The Principle and Applications of Bioelectrochemical Systems -- Fermentable Sugars from Ligno-cellulosic Biomass: Technical Challenges.

Sommario/riassunto

Biofuels are considered to be the main potential replacement for fossil fuels in the near future. In this book international experts present recent advances in biofuel research and related technologies. Topics include biomethane and biobutanol production, microbial fuel cells, feedstock production, biomass pre-treatment, enzyme hydrolysis, genetic manipulation of microbial cells and their application in the biofuels industry, bioreactor systems, and economical processing technologies for biofuel residues. The chapters provide concise information to help understand the technology-related implications of biofuels development. Moreover, recent updates on biofuel feedstocks, biofuel types, associated co- and byproducts and their applications are highlighted. The book addresses the needs of postgraduate researchers and scientists across diverse disciplines and industrial sectors in which biofuel technologies and related research and experimentation are pursued.