1. Record Nr. UNINA9910299597403321

Titolo	Biorefining of Biomass to Biofuels : Opportunities and Perception / / edited by Sachin Kumar, Rajesh K. Sani
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-67678-4
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XVII, 372 p. 113 illus., 56 illus. in color.)
Collana	Biofuel and Biorefinery Technologies, , 2363-7609 ; ; 4
Disciplina	333.9539
Soggetti	Renewable energy resources Microbiology Biochemical engineering Renewable and Green Energy Biochemical Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Biorefining of lignocelluloses: an opportunity for sustainable biofuel production -- Biomass, its potential and applications -- Biomass gasification and sustainability assessment of biomass utilization -- Advances in transformation of lignocellulosic biomass to carbohydrate derived fuel precursors -- Biodiesel synthesis: use of activated carbon as support of the catalysts -- Biorefining of biomass to biofuels: opportunities and perception -- Potential role of halophile in crude glycerol based bio-refinery -- Bio-Jet fuel -- Pretreatment of lignocellulosic biomass towards biofuel production -- Operational strategies for enzymatic hydrolysis in a biorefinery -- Prospects of solvent tolerance in butanol fermenting bacteria -- Simultaneous saccharification and fermentation of lignocellulosic biomass -- Bioalkanes and bioalkenes: an ecofriendly and alternate fuel in bioenergy research -- Algal biorefineries for biofuels and other value-added products -- Biodiesel -technical viability for india -- Kinetic modeling of ethanol production for substrate-microbe system.
Sommario/riassunto	This volume focuses on the prospects of the conversion of biomass into biofuels including ethanol, butanol, biogas, biohydrogen,

biodiesel, syn-gas and other useful products. Biomass-derived fuels have gained tremendous attention worldwide. However, due to high raw material and processing costs, biofuels produced from lignocelluloses have been found to be more expensive than conventional fuels. Therefore, a concept of biorefining has been introduced, where more than one product or each and every component of biomass may be derived into useful products in a manner of petroleum refinery.