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Titolo	Green Fuels Technology : Biofuels // edited by Carlos Ricardo Soccol, Satinder Kaur Brar, Craig Faulds, Luiz Pereira Ramos
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ISBN	3-319-30205-1
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVI, 555 p. 127 illus.)
Collana	Green Energy and Technology, , 1865-3529
Disciplina	333.79 338.926
Soggetti	Energy policy Energy and state Renewable energy resources Pollution prevention Climate change Energy Policy, Economics and Management Renewable and Green Energy Industrial Pollution Prevention Climate Change/Climate Change Impacts
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	History and global policy of biofuels -- Feedstock to biofuels -- Oil crops in the context of global biodiesel production -- An overview of production, properties and uses of biodiesel from vegetable oil -- Pretreatment processes for cellulosic ethanol production: processes integration and modelling for the utilization of lignocellulosics such as sugarcane straw -- Fungal enzymatic degradation of cellulose -- Principles and challenges involved in the enzymatic hydrolysis of cellulosic materials at high total solids -- First generation bioethanol -- Second generation bioethanol -- Bioethanol from soybean molasses -- Bioethanol wastes: Economic valorization -- General assessment of the currently available biodiesel production technologies -- Biodiesel Production by Hydro-Esterification – Simulation Studies -- Biodiesel and bioethanol from algae -- Microbial oil for biodiesel production --

Biohydrogen -- Biogas: An evolutionary perspective in the Indian context -- Biobutanol : A renewable green alternative of liquid fuel from algae -- Biofuel from pyrolysis -- Life cycle assessment of biofuels -- Patents on biofuels -- Economic and environmental aspects of biofuels.

Sommario/riassunto

This book presents key recent developments in biofuel policy, products, processes, patents and innovative technologies. It presents several case studies, which maximize reader insights into how innovative green energy technologies can be implemented on an industrial scale, with illustrations, photos and new approaches. It also analyzes in detail several different technological aspects of the research into and production of green fuels from the first, second and third generation, such as, bioethanol, biogas, biohydrogen, biobutanol, biofuels from pyrolysis, and discusses their economic and environmental impacts. A new source of information for engineers, technicians and students involved in production and research in the biofuels sector, this book also provides a valuable resource for industry, covering the current and future status of biofuels.
