

1. Record Nr.	UNINA9910877721203321
Titolo	Biomass to biofuels : strategies for global industries // edited by Alain A. Vertes, Nasib Qureshi, Hans P. Blaschek, Hideaki Yukawa
Pubbl/distr/stampa	Chichester, West Sussex : , : John Wiley & Sons, Ltd., , 2010
ISBN	1-5231-4397-5 0-470-75002-2 1-282-47208-9 9786612472084 0-470-75003-0
Descrizione fisica	1 online resource (xxii, 559 pages) : illustrations
Disciplina	333.7938 333.9539
Soggetti	Biomass energy - International cooperation Biomass energy industries - International cooperation Globalization
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Biomass to Biofuels; Contents; Foreword; Preface; Contributors; Part I: Structure of the Bioenergy Business; 1 Characteristics of Biofuels and Renewable Fuel Standards; 2 The Global Demand for Biofuels: Technologies, Markets and Policies; 3 Biofuel Demand Realization; 4 Advanced Biorefineries for the Production of Fuel Ethanol; Part II: Diesel from Biomass; 5 Biomass Liquefaction and Gasification; 6 Diesel from Syngas; 7 Biodiesel from Vegetable Oils; 8 Biofuels from Microalgae and Seaweeds; Part III: Ethanol and Butanol 9 Improvements in Corn to Ethanol Production Technology Using Saccharomyces cerevisiae 10 Advanced Technologies for Biomass Hydrolysis and Saccharification Using Novel Enzymes; 11 Mass Balances and Analytical Methods for Biomass Pretreatment Experiments; 12 Biomass Conversion Inhibitors and In Situ Detoxification; 13 Fuel Ethanol Production From Lignocellulosic Raw Materials Using Recombinant Yeasts; 14 Conversion of Biomass to Ethanol by Other Organisms; 15 Advanced Fermentation Technologies; 16 Advanced

Product Recovery Technologies

17 Clostridia and Process Engineering for Energy GenerationPart IV: Hydrogen, Methane and Methanol; 18 Hydrogen Generation by Microbial Cultures; 19 Engineering Photosynthesis for H₂ Production from H₂O: Cyanobacteria as Design Organisms; 20 Production and Utilization of Methane Biogas as Renewable Fuel; 21 Methanol Production and Utilization; Part V: Perspectives; 22 Enhancing Primary Raw Materials for Biofuels; 23 Axes of Development in Chemical and Process Engineering for Converting Biomass to Energy 24 Financing Strategies for Industrial-Scale Biofuel Production and Technology Development Start-UpsIndex

Sommario/riassunto

Focusing on the key challenges that still impede the realization of the billion-ton renewable fuels vision, this book integrates technological development and business development rationales to highlight the key technological developments that are necessary to industrialize biofuels on a global scale. Technological issues addressed in this work include fermentation and downstream processing technologies, as compared to current industrial practice and process economics. Business issues that provide the lens through which the technological review is performed span the entire biofuel value chain,
