

1. Record Nr.	UNINA9910788131003321
Titolo	Sugarcane as biofuel feedstock : advances toward a sustainable energy solution // edited by Barnabas Gikonyo, PhD
Pubbl/distr/stampa	Toronto : , : Apple Academic Press, , [2015] ©2015
ISBN	1-77463-550-X 0-429-15254-X
Descrizione fisica	1 online resource (336 p.)
Disciplina	633.6/1
Soggetti	Sugarcane Energy crops Biomass energy
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 at the end of each chapters.
Nota di contenuto	Front Cover; About The Editor; Contents; Acknowledgment And How To Cite; List Of Contributors; Introduction; Part 1 Why Sugarcane?; Chapter 1 Sugarcane Biomass Production And Renewable Energy; Chapter 2 Evaluating The Composition And Processing Potential Of Novel Sources Of Brazilian Biomass For Sustainable Biorenewables Production; Part 2 Cultivation And Optimization Processes; Chapter 3 Towards The Production Of Second Generation Ethanol From Sugarcane Bagasse In Brazil; Chapter 4 Obtaining New Cultures Of Microorganisms That Produces Cellulases And Xylanases From The Sugarcane Bagasse Chapter 5 Design And Optimization Of Ethanol Production From Bagasse Pith Hydrolysate by A Thermotolerant Yeast Kluyveromyces Sp. Iipe453 Using Response Surface Methodology Chapter 6 Ultra-structural Mapping Of Sugarcane Bagasse After Oxalic Acid Fiber Expansion (oafex) And Ethanol Production By Candida Shehatae And Saccharomyces Cerevisiae; Chapter 7 Combined Biological And Chemical Pretreatment Method for Lignocellulosic Ethanol Production From Energy Cane; Chapter 8 A Novel Promising Trichoderma Harzianum Strain For The Production Of A Cellulolytic Complex Using Sugarcane Bagasse In Natura

Chapter 9 Conversion Of C6 And C5 Sugars In Undetoxified Wet Exploded Bagasse Hydrolysates Using Scheffersomyces (pichia) Stipitis Cbs6054Part 3 Economic And Environmental Factors; Chapter 10 Bioelectricity Versus Bioethanol From Sugarcane Bagasse: Is It Worth Being Flexible?; Chapter 11 Environmental Assessment Of Residues Generated After Consecutive Acid-base Pretreatment Of Sugarcane Bagasse By Advanced Oxidative Process; Part 4 Options For The Future; Chapter 12 Comparative Analysis Of Electricity Cogeneration scenarios In Sugarcane Production By Lca
Chapter 13 Techno-economic Comparison Of Ethanol And Electricity Coproduction Schemes From Sugarcane Residues At Existing Sugar Mills In Southern AfricaAuthor Notes; Back Cover

Sommario/riassunto

As the world's energy hunger grows ever larger, fossil fuel reserves are diminishing-and concerns about climate change remind us that our love affair with fossil fuels cannot continue much longer. This has inspired intense research into sustainable energy sources. Biofuels seemed initially promising, but the world soon realized that food-based biofuel has its own dangers. Second-generation biofuels, however, use biomass from crops' inedible parts-such as the stalks and leaves of sugarcane-offering a far more practical, sustainable, and commercially viable solution. In this book, researchers fro
