Record Nr. UNINA9910829881903321 Plant biomass conversion [[electronic resource] /] / editors: Elizabeth E. Titolo Hood, Peter Nelson, Randy Powell Pubbl/distr/stampa Ames, IA,: Wiley-Blackwell, 2011 **ISBN** 1-282-25142-2 9786613813879 0-470-95909-6 0-470-95913-4 0-470-95905-3 Descrizione fisica 1 online resource (375 p.) Collana Biomass and biofuels series Plant biomass conversion Altri autori (Persone) HoodElizabeth E NelsonPeter <1974-> (Peter Allan) PowellRandall Worth Disciplina 333.9539 662.88 662/.88 Soggetti Plant biomass Biomass conversion Biomass conversion - Environmental aspects 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 and index. Nota di contenuto Plant Biomass Conversion; Contents; Contributors; Preface; 1 The Bioeconomy: A New Era of Products Derived from Renewable Plant-Based Feedstocks; 2 Agricultural Residues; 3 Growing Systems for Traditional and New Forest-Based Materials; 4 Dedicated Herbaceous Energy Crops; 5 Municipal Solid Waste as a Biomass Feedstock; 6 Water Sustainability in Biomass Cropping Systems: 7 Soil Sustainability Issues in Energy Crop Production; 8 Fermentation Organisms for 5- and 6-Carbon Sugars; 9 Pretreatment Options; 10 Enzyme Production Systems for Biomass Conversion; 11 Fermentation-Based Biofuels 12 Biobased Chemicals and Polymers13 Carbon Offset Potential of

Biomass-Based Energy; 14 Biofuel Economics; Index

## Sommario/riassunto

A whole host of motivations are driving the development of the "renewables" industry- ranging from the desire to develop sustainable energy resources to the reduction of dangerous greenhouse gases that contribute to global warming. All energy utilized on the earth is ultimately derived from the sun through photosynthesis-the only truly renewable commodity. As concerns regarding increasing energy prices, global warming and renewable resources continue to grow, so has scientific discovery into agricultural biomass conversion. Plant Biomass Conversion addresses both the development o