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Nota di contenuto	; Chapter 1. Biofuels and sustainable development / Ewa Klimiuk and Artur Pawlowski -- Chapter 2. Biomass for fuels : classification and composition / Zygmunt Mariusz Gusiatin and Artur Pawlowski -- ; Chapter 3. Biomass feedstock for biofuels production / Katarzyna Bulkowska and Artur Pawlowski -- ; Chapter 4. Outlook for advanced biofuels / Katarzyna Bulkowska, Ewa Klimiuk and Artur Pawlowski -- ; Chapter 5. Conversion of lignocellulosic biomass into sugars : the effect of the structure of lignocellulose / Katarzyna Bulkowska, Ewa Klimiuk, Tomasz Pokoj and Artur Pawlowski -- ; Chapter 6. Pretreatment of lignocellulosic biomass / Katarzyna Bulkowska and Ewa Klimiuk -- ; Chapter 7. Fermentative and non-fermentative pathways of butanol and its analogues / Tomasz Pokoj and Ewa Klimiuk.
Sommario/riassunto	Biomass is a widely available resource, that can be characterized by its high production potential. Enabling the production of different types of biofuels, biomass can be used in both spark-ignition and compression-ignition engines. There is extensive knowledge of the biofuel production process, and technologies enabling the production of biofuels with high caloric value and better physicochemical properties are developed. The biggest barrier in the development of a biofuels

market is not the lack of know-how, but economic and political aspects. Biomass for Biofuels presents technological aspects of biomass conversion into advanced biofuels. Also discussed are the influence of growing biofuels markets on the natural environment and social relations as well as economic aspects of acquisition of biomass and its processing into biofuels. In addition biomass characteristics are presented. A definition is provided, and its chemical composition and properties detailed. The focus is on lignocellulosic biomass, whose complex structure is a limiting factor for biofuels production via biological processes. For that reason, mechanical, chemical and physicochemical methods that enable an increased availability for the microorganisms used for biomass conversion to biofuels are discussed.
