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Autore	Ptasinski Krzysztof J.
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photosynthesis and cultivation of biomass feedstocks and ending with final bioenergy products, like power, biofuels, and chemicals. Each chapter includes historical developments, chemistry, major technologies, applications as well as energy, environmental and economic aspects in order to serve as an introduction to biomass and bioenergy. A separate chapter introduces a beginner in an easy accessible way to exergy analysis and the similarities and differences between energy and exergy efficiencies are underlined. Includes case studies and illustrative examples of 1st, 2nd, and 3rd generation biofuels production, power and heat generation (thermal plants, fuel cells, boilers), and biorefineries; Traditional fossil fuels-based technologies are also described in order to compare with the corresponding bioenergy systems."--
