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Descrizione fisica	1 online resource (VII, 327 p. 146 illus., 98 illus. in color.)
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Soggetti	Renewable energy sources Electric power production Renewable Energy Electrical Power Engineering Mechanical Power Engineering
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Nota di contenuto	Waste Cooking Oil (WCO) Biodiesel Production Using Calcined Chalk as Heterogeneous Catalyst -- Synthesis of Biodiesel from Karanja Oil using Modified Mordenite as a Heterogeneous Catalyst -- A review on nano-catalyst from waste for production of biofuel-via-bioenergy -- A review on application of integrated solar and Bioenergy based technology -- Optimization of mass flow rate for N- flat plate collector integrated biogas plant for winter season at Srinagar, Kashmir (India) location for achieving superior performance -- Synthesis and characterization of biodiesel from simarouba glauca.
Sommario/riassunto	These conference proceedings provide a comprehensive overview of and in-depth technical information on all possible bioenergy resources (solid, liquid, and gaseous), including cutting-edge themes such as advanced fuels and biogas. The book includes current state-of-the-art topics ranging from feedstocks and cost-effective conversion processes to biofuels economic analysis and environmental policy, and features case studies and quizzes for each section derived from the implementation of actual hands-on biofuel projects to aid learning. It

offers readers a starting point on this challenging and exciting path. The central concepts are defined and explained in the context of process applications under various topics. By focussing on the pertinent fundamental principles in the environment and energy sciences and by repeatedly emphasizing the importance of their correlation, it offers a strong foundation for future study and practice. Learning about fundamental properties and mechanisms on an ongoing basis is absolutely essential for long-term professional viability in a technically vibrant area such as nanotechnology. The book has been written for undergraduate and graduate students in chemical, energy and environment engineering. However, selected sections can provide the basis for courses in civil, mechanical or electrical engineering. It includes a self-contained presentation of the key concepts of energy resources, solar thermal and photovoltaic systems, nuclear energy, biomass conversion technology and agricultural-waste processing. Throughout it interweaves descriptive material on sustainable development, clean coal technology, green technology, solid-waste management and lifecycle assessments. It offers an introduction to these topics rather than comprehensive coverage of the themes and their in-depth fundamentals.