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Sinopsis

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New Process Technology for Developing Low-Cost, Environmentally Safe Biofuels

Rising fuel prices have created a surge in the worldwide demand for biofuels made from plant and animal feedstocks. Filled with a wealth of illustrations, Biofuels Engineering Process Technology fully explains the concepts, systems, and technology now being used to produce biofuels on both an industrial and small scale.

Written by a team of leading biofuels experts, this lucid guide presents a complete introduction to biofuels and biorefining processes?state-of-the-art information on biofuels processed from fermentations of ethanol, hydrogen, microbial oils, and methane?new material on the production of biodiesel from plant and algal oils?and the use of microbial fuel cells to produce bioelectricity. Biofuels Engineering Process Technology takes readers step by step through:

The key concepts, systems, and technology of biofuels
A review of the basic concepts of fermentation pathways and kinetic modeling of bioreactors
Biofuels produced from fermentations of agricultural feedstocks and biomass-ethanol, hydrogen, microbial oils, and methane
Biodiesel fuels processed from the chemical conversion of microbial and plant oils
Bioelectricity produced from microbial fuel cells
The latest sustainable biorefinery concepts and methods

Inside This Cutting-Edge Biofuels Engineering Guide
? Introduction ? Fuels from Fermentations: Ethanol ? Hydrogen ? Microbial Oils ? Methane ? Fuel from Chemical Conversion of Plant and Algal Oils: Biodiesel ? Microbial Fuel Cells ? Technical Resources
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