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Sommario/riassunto

Biochemical engineering is the application of engineering principles to conceive, design, develop, operate, and/or use processes and products based on biological and biochemical phenomena. Biochemical engineering influences a broad range of industries, including health care, agriculture, food, enzymes, chemicals, waste treatment, and energy, among others. Historically, biochemical engineering has been distinguished from biomedical engineering by its emphasis on biochemistry and microbiology and by the lack of a health care focus. This is no longer the case. There is increasing participation of biochemical engineers in the direct development of pharmaceuticals and other therapeutic products. Biochemical engineering has been central to the development of the biotechnology industry, given the need to generate prospective products on scales sufficient for testing, regulatory evaluation, and subsequent sale. This book begins with a review of biodiesel processing technology, the use of varied biodiesel in diesel engines and an analysis of economic scale and ecological impact of biodiesel fuel. Other areas of research include the application of biochemical engineering in the fishery industry, algae growth, and waste water management.
