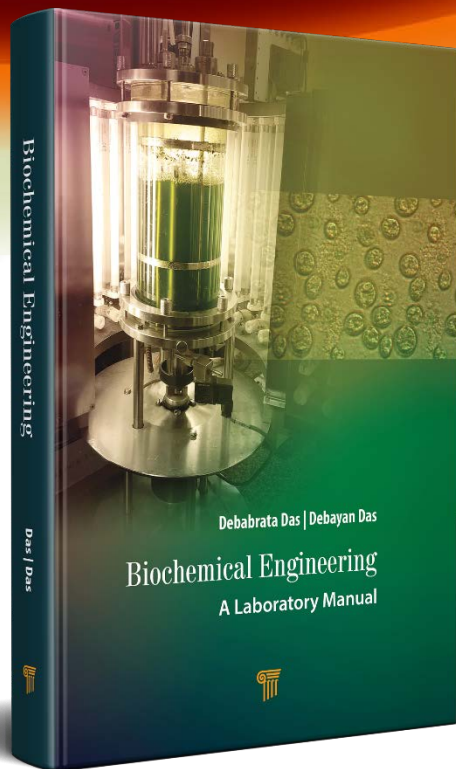


Biochemical Engineering

A Laboratory Manual



by
Debabrata Das & Debayan Das

Description

Biochemical engineering mostly deals with the most complicated life systems as compared with chemical engineering. A fermenter is the heart of biochemical processes. It is essential to operate a system properly. A description of enzymatic reaction kinetics is followed by cell growth kinetics to determine several kinetic parameters. Operations and analyses of several biochemical processes are included to determine their special characteristics. The book also covers the determination of several operational parameters, such as volumetric mass transfer coefficient, mixing time, death rate constant, chemical oxygen demand, heat of combustion etc.

This book provides a novel description of the experimental protocol to find out several operational parameters of biochemical processes. A comprehensive collection of numerous experiments based on fundamentals; it focuses on the determination of not only the characteristics of raw materials but also other essential parameters required for the operation of biochemical processes. It also emphasizes the applicability of the analysis to various processes. Equipped with illustrative diagrams, neat flowcharts, and exhaustive tables, the book is ideal for young researchers, teachers, and scientists working towards developing a solid understanding of the experimental aspects of biochemical engineering.

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Readership

Teachers, Advanced undergraduate- and graduate-level students, Researchers, process engineers

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