



Textbook of Biochemical Engineering

An Impression

The **Textbook of Biochemical Engineering: An Impression** is designed so that its graduates are familiar with the techniques used in analyzing the problems associated with biochemical and related industries. This book has four basic chapters to provide the basic information about biochemical engineering and related techniques. In chapter 1, the overview of Biochemical Engineering including biotechnology and unit operation has been discussed. Also, commercial aspects and scope of biochemical engineering is deliberated. The basics of sterilization, its method, Monitoring Procedures, Nutrient Media, types, etc. are illustrated in Chapter 2. Chapter 3 is about aeration and agitation in which mass transfer path, oxygen transfer & mixing, oxygen transfer rate, volumetric mass transfer, mass transfer theory, mass transfer coefficients, bioreactor oxygen balance, stirred tank reactor, inter-phase mass transfer, rheology, and many more. The last Chapter 4 has covered a crucial aspect of biochemical engineering i.e. microbial growth kinetics where the basic concept of growth kinetics, type, stoichiometry, maintenance of energy, yield, factors affecting growth rate, product formation kinetics and thermodynamics of cellular growth is discussed in detail along with examples. This book helps to graduate and undergraduate students of chemical and biochemical engineering disciplines to analyze various problems and help them with their rigorous syllabus requirements.

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