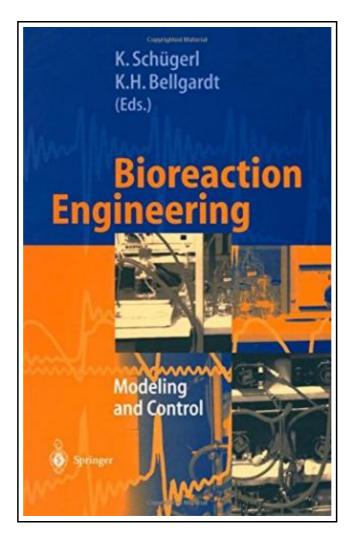
Bioreaction Engineering



Filesize: 8.49 MB

Reviews

I actually started out reading this article publication. It is loaded with knowledge and wisdom Your way of life span is going to be transform as soon as you total reading this article pdf.

(Mrs. Felicia Windler)

BIOREACTION ENGINEERING



Book Condition: New. Publisher/Verlag: Springer, Berlin | Modeling and Control | Alongside presenting the fundamentals, this book reviews the state of the art of mathematical modeling and control of bioprocesses, while demonstrating the application in various biological systems important to industry. At the same time, the application of different types of models and control strategies are illustrated, taking into account the recent developments in reactor modeling. In addition to modeling and control, the metabolic flux analysis and the metabolic design and their application to bioprocesses are considered. | The Need for Modeling and Control in Biotechnical Processes.- Some Modeling Basics.- Structure and Operation of Biotechnical Plant.- Types and Structure Elements of the Bioreactor.- The Stirred Tank Reactor as an Example for Reactors with Mechanical Energy Input; Reactors with Energy Input by Compressed Air; Membrane Reactors for Bubble Free Aeration; Liquid-Phase; Gas-Phase; Solid-Phase; Biotic Phase; Modes of Operation of a Bioreactor; Batch Cultivation; Fed-Batch Cultivation; Continuous Cultivation; Cultivation with Cell Retention; Repeated or Cyclic Batch or Fed-Batch Cultivation; Aerobic Processes; Anaerobic Processes; Micro-Aerobic Processes;.- References.- A General Principles and Techniques.- 1 Bioreactor Models.- 1.1 Introduction.- 1.2 Interrelations Between the Cells and Their Physical/ Chemical Environment.- 1.3 Stirred Tank (ST) Reactors.- 1.3.1 Description of the Physical Processes in the Reactors.- 1.3.2 Reactor Models.- 1.3.2.1 Model for the Ideal Stirred Tank Reactor.- 1.4 Bubble Column (BC) and Airlift Tower Loop (ATL) Reactors.- 1.4.1 Description of the Physical Processes in the Reactors.- 1.4.2 Flow Models.- 1.4.3 Reactor Models.- 1.5 Conclusions.- References.- 2 Bioprocess Models.- 2.1 Introduction.- 2.1.1 Intracellular Structure Elements.- 2.1.2 Regulation of the Metabolism.- 2.1.2.1 Bottle-Neck Principle.- 2.1.2.2 Optimality Principle.- 2.1.3 Kinetics of Growth and Product Formation.- 2.1.4 General Model Structure for Biotechnical Processes.- 2.1.5 Transport in Microbial Aggregates-.- 2.2 Unstructured Models.- 2.2.1 Kinetics of Growth and Substrate Uptake.- 2.2.2 Endogenous and Maintenance...

- Read Bioreaction Engineering Online
 - Download PDF Bioreaction Engineering

You May Also Like



Daddyteller: How to Be a Hero to Your Kids and Teach Them What's Really by Telling Them One Simple Story at a Time

Createspace, United States, 2013. Paperback. Book Condition: New. 214 x 149 mm. Language: English . Brand New Book ***** Print on Demand *****. You have the power, Dad, to influence and educate your child. You can...

Save eBook »



Klara the Cow Who Knows How to Bow (Fun Rhyming Picture Book/Bedtime Story with Farm Animals about Friendships, Being Special and Loved. Ages 2-8) (Friendship Series Book 1)

Createspace, United States, 2015. Paperback. Book Condition: New. Apoorva Dingar (illustrator). Large Print. 214 x 149 mm. Language: English . Brand New Book ***** Print on Demand ******. Klara is a little different from the other...

Save eBook »



Childrens Educational Book Junior Vincent van Gogh A Kids Introduction to the Artist and his Paintings. Age 7 8 9 10 year-olds SMART READS for . - Expand Inspire Young Minds Volume 1

Save eBook »



Fun to Learn Bible Lessons Preschool 20 Easy to Use Programs Vol 1 by Nancy Paulson 1993 Paperback

Book Condition: Brand New. Book Condition: Brand New.

Save eBook »



Edge] the collection stacks of children's literature: Chunhyang Qiuyun 1.2 --- Children's Literature 2004(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date: 2005 Pages: 815 Publisher: the Chinese teenager Shop Books all book....

Save eBook »