Bioreaction Engineering, Bioprocess Monitoring (Volume 3)

Synopsis

Volume 3 of Bioreaction Engineering covers the general principles and techniques of bioprocess monitoring and their application for various bioprocesses. Methods based on the author's long standing experience working with various bioprocesses are applied within the book. In particular, the cultivation of Baker's yeast; production of fusion protein with recombinant E. Coli, alkaline serine protease production with Bacillus licheniformis; production of penicillin V with Penicillin chrysogenum; Cephalosporin C with Acremonium chrysogenum and tetracycline with Streptomyces aureofaciens are considered. This book deals with the monitoring of batch and perfusion cultivations of animal cells and production of monoclonal antibodies with hybridoma cells, Antithrombin III with BHK and CHO cells and Ã -galactosidase with insect cells. The topics covered include: Bioprocess monitoring techniques Cultivation of Saccharomyces cerevisiae Production of Fusion Protein with Recombinanat E. coli Alkaline Protease Production with Bacillus licheniformis Antibiotica Production by Fungi and Streptomycetes Continuous Production of Primary Metabolites with Suspended and Immobilized Microorganisms Cultivation of Animal Cells and Production of Proteins Anaerobic Waste Water Treatment Fast Process Monitoring Techniques Image Analysis of Cells and Cell Aggregates Evaluation of Experimental Data to the Calculation of Metabolite Flux in Microorganisms and Animal Cells Signal Evaluation, Automation and Expert Systems for Process Monitoring Bioprocess Monitoring is invaluable for process engineers, analytical chemists and researchers in biotechnological, pharmaceutical, environmnental and chemical industries.

Book Information

Bioreaction Engineering, Bioprocess Monitoring (Volume 3) Bioprocess Engineering Principles, Second Edition Bioprocess Engineering Principles Fetal Heart Monitoring: Principles and Practices (AWHONN, Fetal Heart Monitoring) Advanced WebLogic Server Automation: Administration and Monitoring with WLST and JMX (Oracle In-Focus Series) (Volume 46) Biomedical Engineering and Design Handbook, Volume 1: Volume I: Biomedical Engineering Fundamentals Earthquake Engineering: From Engineering Seismology to Performance-Based Engineering Fundamentals of Earthquake Engineering (Civil engineering and engineering mechanics series) G.Dieter's Li.Schmidt's Engineering 4th (Fourth) edition(Engineering Design (Engineering Series) [Hardcover])(2008) Tissue Engineering I: Scaffold Systems for Tissue Engineering (Advances in Biochemical Engineering/Biotechnology) (v. 1) Make: Sensors: A Hands-On Primer for Monitoring the Real World with Arduino and Raspberry Pi MySQL Admin Cookbook LITE: Configuration, Server Monitoring, Managing Users Extrusion Detection: Security Monitoring for Internal Intrusions Time Series Modeling for Analysis and Control: Advanced Autopilot and Monitoring Systems (SpringerBriefs in Statistics / JSS Research Series in Statistics) Controller Area Network Prototyping With Arduino: Creating CAN Monitoring, Diagnostics, and Simulation Applications Monitor Your Home Network: A How-To Guide to Monitoring a Small, Private Network The Practice of Network Security Monitoring: Understanding Incident Detection and Response The Art of Monitoring Leveraging an SNMP Agent in Terminal Equipment for Network Monitoring of U.S. Navy SATCOM Nagios: System and Network Monitoring