

Contents

Methods for Biocatalyst Screening A. Tholey, E. Heinzle	1
In-Situ-Fluorescence-Probes: A Useful Tool for Non-Invasive Bioprocess Monitoring E. Stärk, B. Hitzmann, K. Schügerl, T. Scheper, C. Fuchs, D. Köster, H. Märkl	21
Metabolic Flux Analysis Using Mass Spectrometry C. Wittmann	39
The Molecular Mechanism of ATP Synthesis by F_1F_0-ATP Synthase: A Scrutiny of the Major Possibilities S. Nath	65
Bioreactor Developments for Tissue Engineering Applications by the Example of the Bioartificial Liver I. Jasmund, A. Bader	99
Cultivation of Hematopoietic Stem and Progenitor Cells: Biochemical Engineering Aspects T. Noll, N. Jelinek, S. Schmidt, M. Biselli, C. Wandrey	111
Cell Retention Devices for Suspended-Cell Perfusion Cultures L. R. Castilho, R. A. Medronho	129
Fed-Batch Cultures of <i>Escherichia coli</i> Cells with Oxygen-Dependent <i>nar</i> Promoter Systems H. N. Chang, S. J. Han, S.-C. Yim, M.-R. Han, J. Lee	171
Production of Core and Virus-Like Particles with Baculovirus Infected Insect Cells L. Maranga, P. E. Cruz, J. G. Aunins, M. J. T. Carrondo	183
Integrated Approach to Explore the Potential of Marine Microorganisms for the Production of Bioactive Metabolites I. Wagner-Döbler, W. Beil, S. Lang, M. Meiners, H. Laatsch	207

Bulk-Chemicals from Biotechnology: The Case of 1,3-Propanediol Production and the New Trends	
A.-P. Zeng, H. Biebl	239
Author Index Volumes 51 – 74	261
Subject Index	271