
Contents

Metabolic Flux Analysis Based on ^{13}C-Labeling Experiments and Integration of the Information with Gene and Protein Expression Patterns	
K. Shimizu	1
Application of Knowledge Information Processing Methods to Biochemical Engineering, Biomedical and Bioinformatics Field	
T. Hanai · H. Honda	51
Large-Scale Production of Hairy Root	
N. Uozumi	75
Large-Scale Micropropagation System of Plant Cells	
H. Honda · T. Kobayashi	105
Development of Culture Techniques of Keratinocytes for Skin Graft Production	
M. Kino-oka · M. Taya	135
Transgenic Birds for the Production of Recombinant Proteins	
M. Kamihira · K. Nishijima · S. Iijima	171
Functional Magnetic Particles for Medical Application	
M. Shinkai · A. Ito	191
Author Index Volumes 51 – 91	221
Subject Index	237