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**BIOPROCESSING OF RECOMBINANT
E.COLI PRODUCING β -GLUCURONIDASE
ENZYME**



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Bioprocessing Of Recombinant *E. coli* Producing β -Glucuronidase Enzyme

Edited By

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Contents

FOREWORD	vi
About the Editors	ix
CHAPTER	
1 Media Optimization for Fermentation of Recombinant <i>Escherichia coli</i> using Response Surface Methodology	1
<i>Maizirwan Mel, Hamzah Mohd Salleh, Mohd Ismail Abdul Karim and Herry Hidayat Jamil</i>	
2 Improvement of Recombinant <i>E. coli</i> Fermentation Producing β-glucuronidase Enzyme by Taguchi's Design	21
<i>Maizirwan Mel, Hamzah Mohd Salleh, Mohd Ismail Abdul Karim and Mior Haslem Mior Rashidi</i>	
3 Batch Fermentation of Recombinant <i>Escherichia coli</i> Producing β-glucuronidase using Different Control Conditions	37
<i>Mohd Ismail Abdul Karim, Hamzah Mohd Salleh and Maizirwan Mel</i>	
4 Control Strategy of Fed-Batch Fermentation of <i>E. coli</i> Producing Recombinant β-glucuronidase	49
<i>Maizirwan Mel, Mohd Ismail Abdul Karim, Azini Mat Sa'ud and Hamzah Mohd Salleh</i>	
5 The k_La Evaluation of Recombinant <i>Escherichia coli</i> Fermentation Producing β-glucuronidase Enzyme	63
<i>Maizirwan Mel, Mohd Ismail Abdul Karim and Hamzah Mohd Salleh</i>	

Chapter 6

Crossflow Microfiltration of Recombinant *Escherichia coli* Producing β -Glucuronidase Enzyme

*Maizirwan Mel, Hamzah Mohd Salleh, Norhafizah Zainal Abidin,
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1. Introduction

Crossflow filtration is also called as tangential flow filtration, which is the fluid flow parallel to the medium in order to minimize the build-up of solids on the medium. It is widely used in the variety of applications including the separation of cells from a product, the concentration of cells, the removal of cell debris from cell, the concentration of protein solutions, the exchange or removal of salts or salts in a protein solution, and the removal of viruses from protein solutions (Wang, 2001).

As illustrated in Figure 1, the fluid in crossflow filtration flows parallel to the membrane surface, resulting in constant permeates flux at a steady state. The cross flow filtration can be divided into two categories depending on whether the component being filtered is soluble or insoluble. In crossflow filtration, solution is pressured to flow across the surface of the membrane. As a result of this pressure, a fluid is forced through the membrane. This flow toward the surface of the membrane causes species dissolved in the solutions also to be carried toward the membrane surface.