1. Record Nr. UNINA9910141308403321

Titolo	International journal of networking and computing
Pubbl/distr/stampa	[Hiroshima, Japan], : [Hiroshima University]
ISSN	2185-2847
Descrizione fisica	1 online resource
Soggetti	Computer science Informatique Periodicals.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed

2. Record Nr. UNINA9910954876203321

Autore	Xia Wenshui
Titolo	Chitosan hydrolysis by non-specific enzymes / / Wenshui Xia and Ping Liu
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61324-220-4
Edizione	[1st ed.]
Descrizione fisica	1 online resource (78 p.)
Collana	Environmental Science, Engineering and Technology
Altri autori (Persone)	LiuPing
Disciplina	612.3/9
Soggetti	Chitosan - Metabolism
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- CHITOSAN HYDROLYSIS BY NON-SPECIFIC ENZYMES -- CHITOSAN HYDROLYSIS BY NON-SPECIFIC ENZYMES -- CONTENTS -- ABSTRACT -- Chapter 1 INTRODUCTION -- Chapter 2 CHARACTERIZATION OF CHITOSAN HYDROLYSIS BY NONSPECIFIC ENZYMES -- 2.1. CHARACTERIZATION OFCHITOSAN HYDROLYSIS BY

NON-SPECIFIC CELLULASES -- (1) Temperature and pH -- (2) Molecular Weight -- (3) Reduction of the Viscosity -- (4) Kinetic Parameters -- (5) Metal Ions -- 2.2. CHARACTERIZATION OF CHITOSAN HYDROLYSIS BY NON-SPECIFIC LIPASE -- 2.3. Characterization of Chitosan Hydrolysis by Non-Specific Papain -- Chapter 3 MECHANISM OF NON-SPECIFIC ENZYMES TOWARD CHITOSAN -- 3.1. PURIFICATION AND CHARACTERIZATION OF CHITOSANOLYTIC COMPONENTS FROM NON - SPECIFIC ENZYMES -- 3.1.1. Purification and Characterization of a Bifunctional Enzyme with Chitosanolytic and Cellulolytic Activity from Commercial Cellulase -- 3.1.2. Purification and Characterization of a Bifunctional Chitosanase with Chitinase Activity from Commercial Lipase -- 3.2. ACTION MODE ANALYSIS OF BIFUNCTIONAL ENZYMES ON CHITOSAN -- 3.2.1. Substrate Specificity -- 3.2.2. Chitosan and Chitooligosaccharide Hydrolysis Analysis by CCBE -- 3.2.3. TLC Analysis of COS Hydrolysis Products by the Purified CNBE -- Chapter 4 STRUCTURE AND FUNCTION ANALYSIS OF BIFUNCTIONAL ENZYMES WITH CHITOSANOLYTIC ACTIVITY -- 4.1. AMINO ACID COMPOSITION OF PURIFIED CCBE AND CNBE -- 4.2. STRUCTURE ANALYSIS OF PURIFIED CCBE AND CNBE -- 4.2.1. N-Terminal Sequencing Analysis of CNBE -- 4.2.2. Sequencing Analysis of the Purified CCBE by MALDI-TOF Mass -- 4.3. DETERMINATION OF THE ACTIVE SITES OF CCBE AND CNBE BY CHEMICAL MODIFICATION -- 4.3.1. The Essential Carboxyl Group Modification using EDC -- 4.3.2. Modification of Tryptophan Residues using NBS -- 4.3.3. Modification of Histidine Residue using DEPC. 4.3.4. Modification of Tyrosine, Threonine/Serine, Arginine, Methionine Residues Etc -- Chapter 5 IDENTIFICATION OF CCBE FROM T.VIRIDE BY MOLECULAR CLONING -- 5.1. DETERMINATION OF FERMENTATION CONDITION OF T.VIRIDE -- 5.2. CLONING AND SEQUENCE ANALYSIS OF CCBE GENE -- 5.3. EXPRESSION ANALYSIS OF CCBE SPLICING GENES IN PICHIA PATORIS -- ACKNOWLEDGMENTS -- REFERENCE -- INDEX -- Blank Page.

Sommario/riassunto

The focus of this book is the characterizations and hydrolyzing mechanism of the non-specific enzymes toward chitosan choosing the three typical non-specific enzymes: cellulase, lipase and papain as objects. The authors studied the enzymatic characteristics, purification, product analysis, glycoside bond cleavage, active sites and gene cloning of these enzymes to expatiate their non-specific hydrolysis mechanism.