Production Purification And Characterization Of Inulinase

"Conjugated linoleic acid (CLA) has gained much attention recently due to its beneficial health and biological effects on animals and humans. However, the CLA-forming enzyme system has not been studied in details. Six strains of Lactobacillus acidophilus L11, L12, L14, L15, Lactobacillus fermentum and Lactobacillus reuteri were used to study the growth conditions and the production of CLA-forming enzyme in MRS media containing linoleic acid concentrations at 37°C. The purification and characterization of a CLA-forming enzyme were reported for the first time. The results showed that this enzyme has a molecular mass of 72 kDa, and is composed of two subunits. The optimal pH and temperature were 7.0 and 37°C, respectively. Kinetic study indicated that the enzyme has a high affinity for linoleic acid having a Km value of 1.49 x 10 -5 M and the Vmax was 17.1 muM/mg/min. The enzyme activity was inhibited by the metal chelators. (Abstract shortened by UMI.)" --

The investigation of exo-laccase production by selected fungal strains, including Coriolus hirsutus, Pleurotus pulmonarius and Chaetomium thermophilium, under liquid-state fermentation was investigated. Among the investigated fungal strains, C. hirsutus found to be the most appropriate one in term of its capacity to produce active exo-laccase in the presence of ethanol as the most appropriate inducer. The effects of carbon and nitrogen concentrations on the production of active laccase were also investigated, where 50 mM of glucose and 5 mM of ammonium chloride were found to be respectively, the optimized concentrations. The exo-

crude enzymatic extract was recovered and concentrated by ultrafiltration; the partially purified enzymatic extract was obtained by ammonium sulfate precipitation at 60-80% of saturation. The partially purified enzymatic extract of laccase was successively purified by size-exclusion (SEC) and ion-exchange (IEC) chromatographies. The SEC ...

Xylan is the major hemicellulosic constituent of hard and soft wood, and is the next most abundant renewable polysaccharide after cellulose.Xylanases and associated debranching enzymes produced by a variety of microorganisms including bacteria, yeast and filamentous fungi, bring about the hydrolysis of hemicelluloses. Xylanolytic enzymes are receiving increasing attention because of their potential application in pulp bleaching and bioconversion of lignocelluloses into feedstocks and fuels.The xylan degrading system includes endo-1,4-xylanases (1,4- -xylan xylanohydrolase; EC 3.2.1.8), which release long and short xylo-oligosaccharides, and other xylanases that attack only longer chains, and -D-xylosidase (1,4- -xylan xylohydrolase; EC 3.2.1.37), which remove D-xylose residues from short xylo-oligosaccharides. Cellulase-free xylanases are important in the paper and pulp industry as alternatives to the use of toxic chlorinated compounds. For the last two decades the bleaching of pulp has become an issue of great concern, primarily because of the environmental hazards caused by the release of the adsorbable organic halogens and due to increasing public awareness thereof."

Production, Purification and Characterization of Incar-fullernessProduction, Purification and Characterization of Thermostable Xylanases from Dictyoglomus Sp. B1Production, Purification and Characterization of the Escherichia Coli Kch ProteinProduction, Purification and Characterization of Lipase by the Heat-resistant Mold, Byssochlamys FulvaThe Production,

Purification and Characterization of a Monoclonal Antibody Against Ochratoxin AProduction, Purification & Characterization of Amylase: B. MegateriumProduction, Purification and Characterization of Lipase from Aeromonas Sobria LP004Production, Purification and Characterization of Tannase from Microbial SourceStudies on the Production, Purification and Characterization of Escherichia Coli HemolysinAdvanced methods for industrial production, purification, and characterization of gene vectorsconference bookLarge Scale Production, Purification, and Characterization of Immune InterferonStudies on Production, Purification and Characterization of Y-BHC Degrading Enzyme from Geotrichum Candidum NCDC-228Production, Purification and Characterization of Arabinosidases from Thielavia Terrestris ATCC 26917Enhanced Production, Purification, and Characterization of Propionicin PLG-1, a Bacteriocin Produced by Propionibacterium ThoeniiProduction, Purification and Characterization of Myrosinase from Aspergillus Sp. NR-4201Production, purification and characterization of B-Galactosidase from Kluyveromyces fragilisProduction, Purification, and Characterization of a Lignin Ester Esterase in Streptomyces Viridosporus T7AProduction, Purification, and Characterization of Marek's Disease Infected Cell "A" AntigenThe Production, Purification, and Characterization of Active and Inactive Staphylococcal Alpha ToxinProduction, Purification and Characterization of Alkaline Protease from Mutant of Bacillus PolymyxaThe Production, Purification and Characterization of Endo-1,4-ß-mannanase from Newly Isolated Strains from Scopulariopsis CandidaProduction Purification and Characterization of Monoclonal Antibodies to Abscisic Acid: Its Application in Stress Physiology of PlantsProduction, Purification and Characterization of Industrial EnzymesA Research Based StudyLAP Lambert Academic Publishing

Ever growing biotechnological set up of modern industry has motivated the research towards the comprehensive survey of microorganisms, which could be utilized in extreme conditions of industry. The present study includes the optimization parameters in submerged fermentation of Industrial enzymes (Invertase and Alpha-amylase) using agricultural as well as industrial wastes as sources of carbon. Main outcome of the research is the exploration of new strains of fungi (Penicillium lilacinum and Aspergillus niger) which have a potential to be used in industries for the economical production of industrial enzymes.

Enzyme activity was not significantly affected by Ca2+, Mg2+, EDTA, and DTT, but it was highly inhibited by Zn2+, Cu2+, and Pb2+ . The best crystallization conditions for this purified GA are 15% PEG 3350, 100 mM Tris-Cl, and 200 mM Li2SO4 at pH 8.0. Heavy atom derivative studies showed the K2PtBr4 derivative is most suitable for further solution of the GA three- dimensional structure. Preliminary analysis of GA crystals suggests that they have the space group P21212 with unit cell parameters of 81.20 x 101.97 x 164.27 Å. This suggests that our crystals contain two molecules of GA in the asymmetric part of the unit cell. Crystallization of GA with noncrystallographic symmetry suggests that it may exist in solution as a dimer under some conditions. X-ray diffraction and synchrotron data are being collected and the complete solution of this GA structure is probable.