S1-G: Natural & Herbal Products II	S1-H: Cosmeceutical II	S2-G: Bioprocess and Biomanufacturing IV	S2-H: Environmental Biotechnology II
14:30 - 14:55			
Proximate And Beta Glucan Content Of The Healthy Drink From Local Oyster Mushroom *(Pleurotus Ostreatus)* With Manual Extortion *Ms. Netty Widyastuti* *Center for Bioindustrial Technology, Bandung, Indonesia*	**Comparison of Ethnic Variations in Skin Physiological Conditions and Stratum Corneum Lipid Compositions among Malaysians, Koreans, and Vietnamese** *Dr. Rosnani Hasham* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Bioprocessing Development For Anaerobic Cultivation Of Probiotic Bacteria *Bifidobacterium Longum* For High Cell Mass Production** *Mr. Muhammad Khairuddin Malek* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Response of Malaysian Traditional Upland Rice to Different Fertilizers** *Ms. Nurhaziqah Supari* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*
14:55 - 15:20			
Potential Antioxidant And Cytotoxic Properties of Carica Papaya Extracts *Dr. Ivy Wong Nyet Kui* *Universiti Malaysia Sabah (UMS), Sabah, Malaysia*	**The Infuence of Various Additives on Stability of Niosome** *Ms. Nurul Bashirah Binti Yusof* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Enhanced Biomass Production Of *Pseudomonas Fluorescens* For Waste Water Treatment In Shake Flask And Semi-Industrial Scale Bioreactor** *Mr. Azuan Abdul Latif* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Water Balance In Oxidation Pond System At The King's Royally Initiated Laem Phak Bia Environmental Research And Development Project, Petchaburi Province, Thailand** *Mr. Thanawat Jinjaruk* *The King's Royally Initiated Laem Phak Bia Environmental Research and Development (Royal LERD), Thailand*
15:20 - 15:45			
Screening of Antiviral Activity in Carica Papaya Aqueous Extract On Dengue Virus Type-2 *Ms. Siti Latifah Abd Kadir* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Efficient Utilization of Plant Materials for Profitable Manufacturing of the Wellness Industry** *Mr. Umar Isah Abubakar* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Inoculation on Seedling Vigor and Enzyme Activities of Malaysia Upland Rice** *Mr. Abd Rahman Jabir Mohd Din* *Institute of Bioproduct Development, Universiti Teknologi Malaysia (UTM), Malaysia*	**Gas Producing from Sludge of Oxidation Ponds for Community Wastewater Treatment as Generated through Nature-by-Nature Processes** *Dr. Noppawan Semvimol* *The King's Royally Initiated Laem Phak Bia Environmental Research and Development (Royal LERD), Thailand*

15.45 - 16.00 ~~COFFEE BREAK~~
16.00 - 16.30 CLOSING AND ANNOUNCEMENT OF WINNERS
16.30 - 17.00 GROUP PHOTO SESSION

ABSTRACTS FOR POSTER PRESENTATION

PS2-03

New Formulation Of Production Media For Submerged Cultivation Of *Aspergillus Niger* For Production Of Pectinase

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Abstract
This study investigates the development of industrial production media and cultivation strategy for the production and secretion of pectinases in a semi-industrial scale by *Aspergillus niger*. One major problem faced during submerged cultivation using *A. niger* is the change in morphology which give high impact on the productivity of pectinase secretion that correlated with medium composition and processing condition. In view of this, the effect of medium composition on the production and secretion of pectinase were studied through the optimization using various medium compositions and the addition of external carbon effect (apple pectin, lactose, dry peel citrus pectin, sucrose, glucose, citrus pectin). Medium formulation containing 30 g L^{-1} sucrose, 1 g L^{-1} K_2HPO_4 and Capek concentrate (mixture between $NaNO_3$, KCl ,$MgSO_4 \cdot 7H_2O$ and $FeSO_4 \cdot 7H_2O$) resulted in the highest cell mass (6.25 g L^{-1}) and highest total pectinase activity (50.53 U mL^{-1}). Highest total pectinase activity (30.78 U mL^{-1}) was obtained using apple pectin as external carbon source with corresponding cell mass of 540 g L^{-1} after 96 hours of cultivation at 30 °C.

Keywords: Aspergillus niger, pectinase, submerged, medium composition.

PS2-04

Optimization Of Growth Medium And Processing Condition Of *Acinetobacter Sp.*As Biological Phosphorus Removal For Wastewater Treatment In Semi-Industrial Scale Bioreactor

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Abstract
Acinetobacter sp. has been reported previously in their role to enhance the removal of biological phosphorus and heavy metal when introduced in waste water treatment. This is an importance characteristics to be used in remediating the waste water instead of depend on naturally present of microbes. Therefore, high densities of *Acinetobacter sp.* to function in the bioremediation treatment are needed. The optimization of *Acinetobacter sp.* was carried out in shake flask for 24 hours cultivation using different carbon sources (glucose, sucrose, maltose, fructose and glycerol), nitrogen sources (yeast extract, soy powder, corn steep liquor, beef extract and peptone from casein) and phosphate salts (potassium monohydrogen phosphate). Total cell mass of 2.14 g L^{-1} was produced in un-optimized semi-defined medium using glucose as sole carbon source. Replacement of glucose with sucrose resulted in the 62.60% increase of cell mass production (3.48 g L^{-1}). Yeast extract (20 g L^{-1}) was demonstrated as the best nitrogen source based on the 172.89 % increase of cell mass (5.84 g L^{-1}). Unfortunately, different concentration of phosphate salts did not show any differences in cell mass production. A combination of the optimized parameters resulted in 7.59 g L^{-1} of cell mass after 16 hours of cultivation. In conclusion, *Acinetobacter sp.* showed cell mass production rate of 0.23 g L^{-1} h^{-1} under un-controlled pH compared to controlled pH (0.12 g L^{-1} h^{-1}).

Keywords: wastewater treatment, phosphate, removal, optimization, *Acinetobacter sp.*