

MD ZAHANGIR ALAM



- KULLIYAH OF ENGINEERING
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KELAYAKAN AKADEMIK

- Doctor of Philosophy in Biochemical Engineering
- Master of Science in Chemical and Process Engineering
- Bachelor of Science in Chemical Engineering

TANGGUNGJAWAB MENGAJAR

ADVANCED BIOCHEMICAL PROCESSES	2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
ADVANCED BIOLOGICAL REACTOR DESIGN AND ANALYSIS	2016/2017
BIOCHEMICAL PROCESSES	2002/2003 2003/2004 2004/2005 2005/2006 2006/2007 2007/2008 2008/2009
BIOLOGICAL REACTOR DESIGN AND ANALYSIS	2003/2004 2004/2005 2005/2006 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
BIOLOGICAL WASTE TREATMENT DESIGN	2008/2009 2009/2010
BIOLOGICAL WATER TREATMENT DESIGN	2006/2007
BIOMASS ENERGY	2010/2011 2011/2012 2020/2021
BIOPROCESS CONTROL	2015/2016
BIOPROCESS CONTROL & INSTRUMENTATION	2015/2016 2016/2017 2017/2018 2018/2019
BIOTECHNOLOGY ENGINEERING LABORATORY	2006/2007
DESIGN AND OPTIMIZATION OF PROCESS BIOTECH.	2003/2004 2004/2005 2005/2006
ENVIRONMENTAL BIOTECHNOLOGY	2003/2004
FINAL YEAR PROJECT II	2018/2019
Integrated Design Project	2018/2019
MOLECULAR BIOLOGY & BIOCHEMICAL TECH.	2005/2006

PROBABILITY & STATISTICS	2003/2004 2004/2005
PROJECT I	2018/2019
REACTION ENGINEERING	2011/2012 2012/2013 2013/2014 2014/2015
SEMINAR	2018/2019
SEPARATION PROCESSES FOR BIOCHEMICAL PRODUCTS	2003/2004
STRUCTURAL MECHANICS (LAB)	2003/2004
TRANSPORT PHENOMENA	2002/2003 2004/2005
WATER TREATMENT PLANT DESIGN	2014/2015 2015/2016

PROJEK PENYELIDIKAN

In Progress

- 2020 - Present** - Penyediaan Pelan Pengurusan Lembangan Sungai Bersepadu (IRBM) Sungai Buloh, WPKL/Selangor D.E.
- 2020 - Present** - Development of a Solid-State Bio-Conversion System for the Bulk Production of Myco-Coagulant (My-Coag) for Water Treatment
- 2019 - Present** - Electroforced Sedimentation of Biosolids Using Moringa Oleifera Seed Powder as Renewable Dewatering Aid
- 2019 - Present** - A hybrid system of microbial electrolysis cell and anaerobic digestion for high content of biomethane production
- 2017 - Present** - Upscaling the Production of Fish Feed from Palm Kernel Cake and Sargassum
- 2016 - Present** - Development of Pilot Scale Enzymatic Hydroesterification Process for Biodiesel Production from Sludge Palm Oil
- 2015 - Present** - Investigation of Immobilization of Fungal Biomass on Carbon Nanotubes (CNTs) as a Novel Biosorbent for Removal of Textile Dyes
- 2015 - Present** - Development of Pilot Scale Phytochemical Disinfection Process for Surface Water Treatment by Moringa Oleifera Seeds
- 2015 - Present** - Investigation of Indigenous Biofilm Technology for Simultaneous Pretreatment and Enhanced Biogas Production From Palm oil Mill Effluent
- 2015 - Present** - Development of Thermostable and Organic Solvent Tolerant Lipase by Locally Isolated Microbes in Solid State Bioconversion of Palm Kernel Cake
- 2015 - Present** - Investigation of the Symbiotic Mechanism of microalgae-bacteria in Wastewater Treatment

2014 - Present Investigation of Activity and Loading Capability of Lipase Enzyme Immobilized on Nano- and Micro- Polymer Substrates

2004 - Present Bio-Environmental Engineering Research Centre (BERC)

Completed

- 2018 - 2019** Pelan Pengurusan Lembangan Sungai Bersepadu (IRBM) Sungai Merbok, Kedah
- 2016 - 2019** Development of Pilot Scale Enzymatic Hydroesterification Process for Biodiesel Production from Sludge Palm Oil
- 2015 - -1** Feasibility Study for Proposed Water Treatment Plant in Labohan Dagang, Daerah Kuala Langat, Selangor Darul Ehsan.
- 2015 - 2018** Investigation of the Symbiotic Mechanism of microalgae-bacteria in Wastewater Treatment
- 2015 - 2018** Development of Pilot Scale Phytochemical Disinfection Process for Surface Water Treatment by Moringa Oleifera Seeds
- 2015 - 2018** Investigation of Immobilization of Fungal Biomass on Carbon Nanotubes (CNTs) as a Novel Biosorbent for Removal of Textile Dyes
- 2014 - 2017** Development of Novel Microbial Technology to Reduce Turbidity of River Water
- 2014 - 2016** Moringa Oleifera: Oil Extraction, Characterization Studies and Biodiesel Production
- 2014 - 2018** Investigation of Activity and Loading Capability of Lipase Enzyme Immobilized on Nano- and Micro- Polymer Substrates
- 2013 - 2016** Investigation of Electroosmotic Dewatering Mechanism of Water and Wastewater Treatment Plants Sludge
- 2013 - 2016** Development of Heterogeneous Catalysts for Synthesis of Biodiesel from Waste by a Continuous in Situ Transesterification
- 2013 - 2016** Investigation of Various Enzyme Compatible Ionic Liquids for Single-Step Pretreatment and Hydrolysis of Oil Palm Biomass to Biofuel
- 2012 - 2014** Production and Characterization of Biodiesel from Jatropha Curcas Oil
- 2012 - 2015** Development of Low Cost Heterogenous Catalyst for Biodiesel Production
- 2011 - 2015** Investigation of Disinfection Properties of Processed Moringa Oleifera Seeds for Potential Application in Water Treatment
- 2011 - 2014** Enzymatic Transesterification Process for Biodiesel Production using Renewable Source of Sludge Palm Oil in a Batch Reactor
- 2011 - 2014** RU 2011: Pilot Scale Production of Lipase and Characterization using Palm Oil Mill Effluent (POME) as a Basal Medium
- 2010 - 2014** Saccharification of Oil Palm Empty Fruit Bunches by Cellulase Enzyme for Bioethanol Production

- 2010 - 2013** Development of Process Conditions for The Production of Halal Animal Feed Improved Nutrients from Agro Industrial Wastes
- 2010 - 2014** Development of Pathogen Free Composting Process with Oil Palm Industrial Waste by Compatible Filamentous Fungi
- 2010 - 2016** Upscaling Pilot Plant to Process Moringa Oleifera Seeds for Production of Moringa Oil, Bio Flocculants & Feedstock by Patented IP Technology
- 2009 - 2011** Cellulase Production from Solid Fermentation of Palm Oil Empty Fruit Bunch
- 2009 - 2011** Isolation of Hydrocarbons-Degrading Bacteria from Oil-Contaminated Soil
- 2009 - 2012** Bioremediation of Hydrocarbon-contamidedated Soils
- 2009 - 2011** Optimization of Enzyme Immobilization on Carbon Nanotubes
- 2009 - 2012** Sludge Palm Oil Pre-Treatment Method for Biodiesel Production by Esterification and Transesterification Processes
- 2009 - 2012** (RU 2011): Characterization, Composing and Management of food and garden Wastes: IIUM as a case study.
- 2008 - 2012** Development of Model for the Dewatering of Wastewater Sludge/Biosolids using Electroosmotic technique
- 2008 - 2011** Improvement of the Existing Water Quality Indices (WQI) for Various Usages in Malaysia
- 2008 - 2010** Pretreatment of Palm Oil Empty Fruit Bunch (EFB) for the Production of Cellulose
- 2007 - 2016** Palm Oil Mill Effluent as Renewable Resource for Bioethanol Production by Single-Step Bioconversion
- 2007 - 2011** Kinetic Studies and Optimisation of Biofuel Production from Cassava-Starch via Yeast Fermentation.
- 2007 - -1** Palm Oil Mill Effluent as Renewable Resource for Bioethanol Production by Single-Step Bioconversion
- 2007 - 2009** Optimization of Extraction Process for Useful Bound and Free Bioactive Compounds from Oil Palm Industrial Wastes
- 2007 - 2011** Synthesis of High Purity and High Quality of Carbon Nanotubes by Using Multi Stage Chemical Vapour Deposition (MS-CVD)
- 2007 - 2010** Production of Citric Acid from Oil Palm Empty Fruit Bunches by Solid State Bioconversion Using Local *Aspergillus Nigger*
- 2007 - 2011** Palm Oil Mill Effluent As New Media for The Production Of Cellulolytic Enzyme By Liquid State Bioconversion.
- 2007 - 2011** Alternative Solution to Sludge Management: Bioconversion of Sewage Sludge for Cellulolytic Enzyme Production
- 2007 - 2012** Optimisation of Production of Powdered Activated Carbon from Oil Palm Empty Fruit Bunch (EFB) for Treatment of Industrial Wastewater

- 2006 - 2011** Production of Powdered Activated Carbon From Palm Empty Fruit Bunch for Removal of Toxic from Wastewater
- 2006 - 2010** PRODUCTION OF LIGNIN PEROXIDASE ENZYME FROM ORGANIC RESIDUES AS NEW SUBSTRATES BY LIQUID STATE BIOCONVERSION
- 2005 - 2007** Solid State Bioconversion of Lignocellulosic Oil Palm Biomass for Ligninase and Cellulase Enzymes Production Using Bioreactor
- 2004 - 2006** Bioconversion of Organic Residues into Citric Acid by *Aspergillus Niger*

PENERBITAN

Article

- 2020** [Gum Arabic more than emulsifier and food additive: a new experimental validation of anti-proliferative against colorectal colon cancer cell lines.](#) International Journal of Food, Nutrition and Public Health (IJFNPH) , 11 (1/2 Part 2) pp.83-95
- 2020** [Active fractions of methanol crude obtained from acacia seyal gum and their anti-proliferative effects against human breast cancer cell lines.](#) Global Journal of Science Frontier Research: C Biological Science , 20 (3 version 1.0) pp.50-64
- 2020** [Effective bioconversion of sewage treatment plant sludge by pure bacterial culture: an optimization study.](#) Malaysian Journal of Water (MJW) , 1 (1) pp.30-37
- 2019** [Anaerobic co-digestion of sewage sludge and food waste as a promising alternative for waste management and energy production.](#) Biological and Natural Resources Engineering Journal , 2 (1) pp.26-46
- 2019** [Hydrogen-rich syngas fermentation for bioethanol production using *Sacharomyces cerevisiea*.](#) International Journal of Hydrogen Energy pp.1-9
- 2019** [Investigation of extraction yields of exfoliated graphene in deionized water from organic solvents.](#) International Journal of Technology , 10 (6) pp.1251-1259
- 2019** [High yield of second-generation ethanol in an ionic liquid-cellulase integrated system for single-step processing of empty fruit bunch.](#) Biofuels , 2019 pp.1-13
- 2019** [Enhancement of biogas production from sewage sludge by biofilm pretreatment method.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 57 (2) pp.141-147
- 2019** [Hydrolysis kinetics of oil palm empty fruit bunch in ionic liquids and cellulase integrated system.](#) International Journal of Chemistry , 11 (2) pp.95
- 2019** [Biosurfactant as the next antimicrobial agents in pharmaceutical applications.](#) Biomedical Journal of Scientific & Technical Research , 13 (3) pp.9950-9951
- 2019** [Active fractions of methanol crude obtained from *Acacia seyal* gum: Antioxidant capacity using FTIR analysis.](#) Borneo Journal of Pharmacy , 2 (2) pp.94-107
- 2018** [Gum arabic: an optimization of ultrasonic-assisted extraction of antioxidant activity.](#) Chemia , LXIII (63) (3) pp.95-116

- 2018** [Production and stability of myco-flocculants from *Lentinus squarrosulus* RWF5 and *Simplicillium obclavatum* RWF6 for reduction of water turbidity.](#) IIUM Engineering Journal , 19 (1) pp.48-58
- 2018** [Experimental investigation and effective medium approximation of thermal conductivity of water based exfoliated Graphene nanofluids.](#) International Journal of Applied Engineering Research , 13 (10) pp.7477-7487
- 2018** [Reuse potential of carbon nanotubes in removing cadmium from water.](#) Nanoscience & Nanotechnology-Asia , 8 (2) pp.193-198
- 2018** [Factors affecting the in-situ hydrolysis of empty fruit bunches in ionic liquid compatible cellulase system.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 52 (1) pp.23-32
- 2018** [A new isolate of thermophilic and organic solvent tolerant bacteria for lipase production using basal medium of palm kernel cake.](#) Malaysian Journal of Microbiology , 14 (2 (Special issue)) pp.80-87
- 2018** [Chemical and structural changes of pretreated empty fruit bunch \(EFB\) in ionic liquid-cellulase compatible system for fermentability to bioethanol.](#) 3 Biotech , 8 (5) pp.1-15
- 2018** [Isolation and screening of bacteria with biofilm formation ability and characterization with hydrolytic enzyme production for enhanced biogas production.](#) Malaysian Journal of Microbiology , 14 (2 (Special Issue)) pp.96-101
- 2018** [A proposed resistance-to-time converter with switching impulse calibrators for application in resistive bridge sensors.](#) Indonesian Journal of Electrical Engineering and Computer Science , 11 (1) pp.47-50
- 2018** [Challenges of extraction techniques of natural antioxidants and their potential application opportunities as anti-cancer agents.](#) Health Science Journal , 12 (5:596) pp.1-25
- 2018** [Microbial lipid extraction from *Lipomyces starkeyi* using irreversible electroporation.](#) Biotechnology Progress , 34 (4) pp.838-845
- 2018** [Ionic liquids as a potential solvent for lipase-catalysed reactions: a review.](#) Journal of Molecular Liquids , 251 pp.150-166
- 2018** [Kinetic and adsorption removal study of Malachite green dye on Carbon Nanotubes Immobilized Biomass \(CNTIB\).](#) Journal of Pollution and Public Health , 1 (1) pp.1-7
- 2018** [Carbon nanotubes grown on oil palm shell powdered activated carbon as less hazardous and cheap substrate.](#) Applied Nanoscience (Switzerland) , 8 (7) pp.1767-1779
- 2018** [Development of an effective biosorbent by fungal immobilization technique for removal of dyes.](#) Waste Biomass Valorization , 9 (1) pp.681-690
- 2018** [Feasibility of using kaolin suspension as synthetic sludge sample.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 48 (1) pp.25-39
- 2018** [Protein improvement of banana peel through sequential solid state fermentation using mixed-culture of *phanerochaete chrysosporium* and *Candida utilis*.](#) 3 Biotech , 8 (10) pp.1-10

- 2018** [Effect of exfoliated graphene defects on thermal conductivity of water based graphene nanofluids.](#) International Journal of Applied Engineering Research , 13 (7) pp.4871-4877
- 2018** [Growth, substrate consumption, and product formation kinetics of Phanerochaete chrysosporium and Schizophyllum commune mixed culture under solid-state fermentation of fruit peels.](#) 3 Biotech , 8 (10)
- 2018** [Determination of antioxidant activity of gum Arabic: an exudation from two different locations.](#) ScienceAsia , 44 (3) pp.179-186
- 2017** [Microbial surface tensio-active compounds: Production and industrial application perspectives: A review.](#) International Journal of Biotechnology and Bioengineering , 3 (8) pp.273-292
- 2017** [Optimization of flocculation process by microbial coagulant for removal of turbidity in river water.](#) IIUM Engineering Journal , 18 (2) pp.63-70
- 2017** [Development of indigenous biofilm for enhanced biogas production from palm oil mill effluent.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 39 (1) pp.1-8
- 2017** [Enzyme-aided extraction of sulfated polysaccharides from Turbinaria turbinata brown seaweed.](#) International Food Research Journal , 24 (4) pp.1660-1666
- 2017** [Development of enzymatic pretreatment of palm oil mill effluent for monomers towards biogas production.](#) Advanced Research in Materials Science , 38 (1) pp.39-44
- 2017** [Optimization of protein enrichment of fruit peels by mixed culture of Phanerochaete chrysosporium and schizophyllum commune as animal feed supplements.](#) International Food Research Journal , 24 (6) pp.2632-2639
- 2017** [Evaluation of antioxidant capacity and physicochemical properties of Sudanese baobab \(Adansonia digitata\) seed-oil.](#) International Food Research Journal (IFRJ) , 24 (Suppl.) pp.441-445
- 2017** [Nucleation events and metastable zone width of mefenamic acid polymorph in ethyl acetate.](#) Journal of Engineering and Applied Sciences , 12 (4) pp.1031-1039
- 2017** [Chemical structure of sulfated polysaccharides from brown seaweed \(Turbinaria turbinata\).](#) International Journal of Food Properties , 20 (7) pp.1457-1469
- 2017** [Effect of solvent types on phenolics content and antioxidant activities of Acacia polyacantha gum.](#) International Food Research Journal (IFRJ) , 24 (Suppl.) pp.369-377
- 2017** [Challenges in textile wastewater and current palliative methods: An overview.](#) IIUM Engineering Journal , 18 (2) pp.71-78
- 2017** [Characterization of the Baobab fruit shells as adsorption material.](#) International Food Research Journal (IFRJ) , 24 (Suppl.) pp.S472-S474
- 2017** [Research progress in bioflocculants from bacteria.](#) International Food Research Journal , 24 (Suppl.) pp.S402-S409
- 2017** [Investigating the role of molecular interactions in polymorphism of mefenamic acid in ethyl acetate solution.](#) Jurnal Teknologi , 79 (5-3) pp.21-27

- 2017** [Implementation of definite screening design in optimization of in situ hydrolysis of EFB in cholinium acetate and locally produced cellulase combined system.](#) Waste and Biomass Valorization , 8 (3) pp.838-850
- 2017** [Thermostable and organic solvent tolerant lipase producing fungi in solid state bioconversion of palm kernel cake.](#) Asia Pacific Journal of Molecular Biology and Biotechnology , 25 (1) pp.98-105
- 2017** [Optimization of thermostable organic solvent-tolerant lipase production by thermotolerant Rhizopus sp. using solid-state fermentation of palm kernel cake.](#) 3 Biotech , 7 (5) pp.1-11
- 2016** [Ionic liquid pretreatment as emerging approaches for enhanced enzymatic hydrolysis of lignocellulosic biomass.](#) Biochemical Engineering Journal , 109 pp.252-267
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- 2016** [Screening of factors affecting the enzymatic hydrolysis of empty fruit bunches in aqueous ionic liquid and locally produced cellulase system.](#) International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering , 10 (7) pp.843-847
- 2016** [Utilization of fruit peels as carbon source for white rot fungi biomass production under submerged state bioconversion.](#) Journal of King Saud University - Science , 28 (2) pp.143-151
- 2016** [Molecular recognition and solubility of mefenamic acid in water.](#) Asian Journal of Chemistry , 28 (4) pp.853-858
- 2016** [Fungal flocculants to reduce turbidity of river water.](#) ARPN Journal of Engineering and Applied Sciences , 11 (6) pp.4094-4099
- 2016** [Characterization of low-cost lipase by solid-state fermentation of palm kernel cake using candida cylindracea.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.319-326
- 2016** [Lipase production by Aspergillus niger using sheanut cake: an optimization study.](#) Journal of Taibah University for Science , 10 (6) pp.850-859
- 2016** [Adsorption of methylene blue from aqueous solution using untreated and treated \(Metroxylon spp.\) waste adsorbent: equilibrium and kinetics studies.](#) International Journal of Industrial Chemistry , 7 (3) pp.333-345
- 2016** [Prevalence, antibiotic susceptibility profiles and ESBL production in Klebsiella pneumoniae and klebsiella oxytoca among hospitalized patients.](#) Periodicum Biologorum , 118 (1) pp.53-58
- 2016** [Pretreatment methods of organic wastes for biogas production.](#) Journal of Applied Sciences , 16 (3) pp.124-137
- 2016** [Study of the effects of process parameters on electroforced sedimentation in solid-liquid separation using response surface methodology.](#) Waste and Biomass Valorization , 7 (3) pp.583-591

- 2016** [Esterification of *Jatropha curcas* hydrolysate using powdered niobic acid catalyst.](#) Journal of the Taiwan Institute of Chemical Engineers , 63 (1) pp.243-249
- 2016** [Evaluation of several ionic liquids for in situ hydrolysis of empty fruit bunches by locally-produced cellulase.](#) 3 Biotech , 6 (2) pp.1-15
- 2016** [Statistical optimization of ethanol-based biodiesel production from sludge palm oil using locally produced *Candida cylindracea* lipase.](#) Waste and Biomass Valorization , 7 (1) pp.87-95
- 2016** [Electrokinetic sedimentation: a review.](#) International Journal of Environmental Technology and Management , 19 (5-6) pp.374-391
- 2016** [Effective sludge dewatering using *Moringa Oleiferaseed* extract combined with aluminium sulfate.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.372-381
- 2015** [A fermentative approach to ameliorating solid waste challenges within food and hospitality industry.](#) International Biodeterioration & Biodegradation , 102 pp.182-190
- 2015** [Phenolics production from a novel substrate palm oil mill effluent by *Aspergillus niger* IBS-103za: Evaluation of fermentation conditions and antioxidant activity.](#) Chiang Mai J. Sci. , 42 (1) pp.1-16
- 2015** [Recycling of organic wastes using locally isolated lignocellulolytic strains and sustainable technology.](#) Journal of Material Cycles and Waste Management , 17 (4) pp.769-780
- 2015** [Fish bone waste as catalyst for biodiesel production.](#) Journal of Tropical Resources and Sustainable Science , 3 pp.180-184
- 2015** [Hydrolysis of *Jatropha curcas* oil for biodiesel synthesis using immobilized *Candida cylindracea* lipase.](#) Journal of Molecular Catalysis B: Enzymatic , 116 (2015) pp.95-100
- 2015** [Upgrading strategies for effective utilization of biogas.](#) Environmental Progress & Sustainable Energy , 34 (5) pp.1512-1520
- 2015** [Effect of process parameters on yield and conversion of *Jatropha* biodiesel in a batch reactor.](#) Fundamentals of Renewable Energy and Applications , 5 (2) pp.1-5
- 2015** [Statistical optimization of physicochemical factors for protease production by *Bacillus licheniformis* on skim latex serum effluent fortified media.](#) Journal of Engineering Sciences and Technology , Spec.6 pp.42-52
- 2015** [Phytoremediation and mathematical model for domestic wastewater by *Chlorella vulgaris*.](#) Advances in Environmental Biology , 9 (14) pp.139-144
- 2015** [Evaluation of entrapment potentiality and turbidity removal efficiency of fungi.](#) Jurnal Teknologi , 77 (24) pp.23-28
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- 2015** [Solvent tolerant lipases: a review.](#) Process Biochemistry , 50 pp.86-96

- 2015** [Analysis of the efficiency of sludge dewatering using moringa oleifera as natural phytoagulant.](#) International Journal of Research in Chemical, Metallurgical and Civil Engineering (IJRCMCE) , 2 (2) pp.111-117
- 2015** [Agricultural residues for cellulolytic enzyme production by Aspergillus niger: effects of pretreatment.](#) 3 Biotech , 5 (6) pp.1101-1106
- 2014** [Effect of dewatering aid dosage in electroforced sedimentation.](#) International Journal of Chemical and Environmental Engineering , 5 (5) pp.290-293
- 2014** [Cytotoxicity and inhibition of nitric oxide syntheses in LPS induced macrophage by water soluble fractions of brown seaweed.](#) Food Hydrocolloids , 42 pp.269-274
- 2014** [Cytotoxicity and inhibition of nitric oxide in lipopolysaccharide induced mammalian cell lines by aqueous extracts of brown seaweed.](#) Journal of Oleo Science , 63 (8) pp.787-794
- 2014** [Optimization of bioethanol production from empty fruit bunches by co-culture of saccharomyces cerevisiae and aspergillus niger using statistical experimental design.](#) Journal of Pure and Applied Microbiology , 8 (s.ed 1) pp.731-740
- 2014** [Statistical screening and optimization of factors that influence lipase production from palm kernel cake using candida cylindracea in solid-state bioconversion.](#) Journal of Pure and Applied Microbiology , 8 (s.ed 1) pp.691-705
- 2014** [Optimization of media composition for \$\alpha\$ -amylase production in liquid state fermentation of bitter cassava by aspergillus niger.](#) Journal of Pure and Applied Microbiology , 8 (s.ed 1) pp.719-724
- 2014** [Immobilization of lipase enzyme by low cost material: a statistical approach .](#) International Journal of Biological, Veterinary, Agricultural and Food Engineering , 8 (6) pp.522-525
- 2014** [Approaches in the utilization of Jatropha curcas oil as feedstock for biodiesel synthesis: a review.](#) Advances in Environmental Biology , 8 (3) pp.626-632
- 2014** [Protein enrichment through synergistic activities of fruit wastes using white rot fungi under submerged state fermentation.](#) Journal of Pure and Applied Microbiology , 8 (spec. ed.1) pp.777-782
- 2014** [Effect of biodegradation on the physical properties of palm oil mill effluent \(POME\) using mixed culture of fungi.](#) Journal of Pure and Applied Microbiology , 8 (spcl 1) pp.885-890
- 2014** [Isolation and selection of new biosurfactant producing bacteria from degraded palm kernel cake under liquid state fermentation.](#) Journal of Oleo Science , 63 (8) pp.795-804
- 2014** [Kinetics of lipase production from candida cylindracea by solid-state bioconversion of palm kernel cake.](#) Asian Journal of Microbiology, Biotechnology & Environmental Sciences , 16 (3) pp.523-528
- 2014** [Effect of bio-degradation on the physical properties of Palm Oil Mill Effluent \(Pome\) using mixed culture of fungi.](#) Journal of Pure and Applied Microbiology , 8 (Sp. E1) pp.885-890
- 2014** [Production of heterogeneous catalysts for biodiesel synthesis.](#) International Journal of Chemical and Environmental Engineering , 5 (2) pp.73-75

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- 2014** [Kinetic study for compost production by isolated fungal strains.](#) International Journal of Waste Resources , 4 (4) pp.1-6
- 2014** [Optimization of effective composting process of oil palm industrial waste by lignocellulolytic fungi.](#) Journal of Material Cycles and Waste Management , 17 pp.91-98
- 2014** [Esterification for butyl butyrate formation using Candida cylindracea lipase produced from palm oil mill effluent supplemented medium.](#) Arabian Journal of Chemistry , 7 (6) pp.1159-1165
- 2014** [Process optimization of glucoamylase production by aspergillus niger using low cost bitter cassava \(manihot esculenta\).](#) Advances in Environmental Biology , 8 (17) pp.42-47
- 2014** [Kinetics of cadmium adsorption by CNTs grown on PACs.](#) International Journal of Nanoelectronics and Materials , 7 (1) pp.25-33
- 2014** [Pilot-scale production of lipase using palm oil mill effluent as a basal medium and its immobilization by selected materials.](#) Journal of Oleo Science , 63 (8) pp.779-785
- 2014** [Characterization of fish bone catalyst for biodiesel production.](#) International Journal of Biological, Veterinary, Agricultural and Food Engineering , 8 (5) pp.473-475
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- 2014** [Potential aspergillus niger strain for the production of phenolics from a novel source palm oil mill effluent.](#) Journal of Pure and Applied Microbiology , 8 (1) pp.803-808
- 2014** [Evaluation of solvent system for the enzymatic synthesis of ethanol-based biodiesel from sludge palm oil \(SPO\).](#) Bioresource Technology , 154 pp.155-161
- 2013** [Enzymatic biodiesel production from sludge palm oil \(SPO\) using locally produced Candida cylindracea lipase .](#) African Journal of Biotechnology , 12 (31) pp.4966-4974
- 2013** [Development of composting process of oil palm industrial wastes by multi-enzymatic fungal system.](#) Journal of Material Cycles and Waste Management , 15 (3) pp.348-356
- 2013** [Biodegradation potential and ligninolytic enzyme activity of two locally isolated Panus tigrinus strains on selected agro-industrial wastes.](#) Journal of Environmental Management (118) pp.115-121
- 2013** [Enzymatic hydrolysis of plants and algae for extraction of bioactive compounds.](#) Food Review International , 29 pp.352-370
- 2013** [Cellulolytic fruits wastes: a potential support for enzyme assisted protein production.](#) Journal of Biological Sciences , 13 (5) pp.379-385

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- 2012** [Effect of operational parameters on solid state fermentation of cassava peel to an enriched animal feed.](#) Journal of Applied Sciences , 12 (11) pp.1166-1170
- 2012** [Palm oil mill effluent : a waste or a raw material?.](#) Journal of Applied Sciences Research , 8 (1) pp.466-473
- 2012** [Characterization of purified cellulase from fermentation of sewage sludge.](#) Australian Journal of Basic and Applied Sciences , 6 (1) pp.74-78
- 2012** [Statistical modelling optimisation of cellulase enzyme immobilisation on functionalised multi-walled carbon nanotubes for empty fruit bunches degradation.](#) Australian Journal of Basic and Applied Sciences , 6 (1) pp.30-38
- 2012** [The potential of artificial neural network \(ANN\) in optimizing media constituents of citric acid production by solid state bioconversion.](#) International Food Research Journal , 19 (2) pp.491-497
- 2012** [Optimum medium components for biosurfactant production by Klebsiella pneumoniae WMF02 utilizing sludge palm oil as a substrate.](#) Australian Journal of Basic and Applied Sciences , 6 (1) pp.100-108
- 2012** [Lipase production: An insight in the utilization of renewable agricultural residues.](#) Resources, Conservation and Recycling , 58 (1) pp.36-44
- 2012** [Investigation of the viability of selected microorganisms on the biodegradation of Palm Oil Mill Effluent\(POME\).](#) International Journal Chemical and Environmental Engineering , 3 (3) pp.182-186
- 2012** [Optimization of cassava peel medium to an enriched animal feed by the white rot fungi Panus tigrinus M609RQ .](#) International Food Research Journal , 19 (2) pp.427-432
- 2012** [Effective composting of oil palm industrial waste by filamentous fungi: a review.](#) Resources, Conservation and Recycling , 58 (1) pp.69-78
- 2012** [Economic scenario of cellulase enzyme production using Palm Oil Mill Effluent \(POME\).](#) Advanced Materials Research , 576 pp.723-726
- 2012** [Bio-valorization potential of banana peels \(musa sapientum\): an overview.](#) Asian Journal of Biotechnology , 4 (1) pp.1-14
- 2012** [The potential of artificial neural network \(ANN\) in optimizing media constituents of citric acid production by solid state bioconversion.](#) International Food Research Journal , 19 (2) pp.491-497
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