



**UNIVERSITY
OF MALAYA**



IEM
The Institution of Engineers, Malaysia

Malaysia.
**Convention
& Exhibition
Bureau**

26TH REGIONAL SYMPOSIUM ON CHEMICAL ENGINEERING
Role of Chemical Engineering in the Era of Industrial Revolution 4.0

PROGRAMME BOOK

30th – 31st October 2019

Armada Hotel, Malaysia

Kuala Lumpur, Malaysia





26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0



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RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

NOTES

CONTENTS

RSCE Organising Committee	3
RSCE International Steering Committee	3
National Symposium Committee Members	4
Programme	5
Parallel Sessions	6
List of Posters	8
List of Papers	9
Venue	27



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

NOTES



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

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26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

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26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

NOTES



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

PROGRAMME

Time	Wednesday (30 October 2019)					
8.30 am – 9.00 am	Opening Ceremony					
9.20 am – 10.00 am	Plenary Lecture 1 : Mr. Mohd Shafri Baharudin and Dr. Muhammad Izhar Kairi					
10.00 am – 10.40 am	Plenary Lecture 2 : Prof. Dr. Jackie Ying					
10.40 am – 11.00 am	Break					
11.00 am – 11.40 am	Plenary Lecture 3 : Prof. Dr. Toshinori Tsuru					
11.40 am – 12.20 pm	Plenary Lecture 4 : Prof. Dr. Rahmat Sotudeh-Gharebagh					
12.20 pm – 12.50 pm	Poster Session					
12.50 pm – 2.00 pm	Lunch					
	Parallel Session					
2.00 pm – 4.00 pm	1	2	3	4	5	6
4.00 pm – 4.15 pm	Break					
	Parallel Session					
4.15 pm – 6.30 pm	1	2	3	4	5	6

Time	Thursday (31 October 2019)					
8.15 am – 9.00 am	Plenary Lecture 5 : Dr. Tjokorde Walmiki Samadhi					
9.00 am – 9.40 am	Plenary Lecture 6 : Prof. Dr. Mohamed Kheireddine Aroua					
9.40 am – 10.20 am	Plenary Lecture 7 : Prof. Dr. Raymond Girard Tan					
10.20 am – 11.00 am	Plenary Lecture 8 : Assoc. Prof. Dr. Anchaleeporn Lothongkum					
11.00 am – 11.15 am	Break					
	Parallel Session					
11.15 am – 12.30 pm	1	2	3	4	5	6
12.30 pm – 1.45 pm	Lunch					
	Parallel Session					
1.45 pm – 3.00 pm	1	2	3	4	5	6
3.00 pm – 3.15 pm	Break					
	Parallel Session					
3.15 pm – 5.30 pm	1	2	3	4	5	6
5.30 pm – 6.00 pm	Closing Ceremony					

Session No.	Room Name
1	Arcadia I
2	Arcadia II
3	Arcadia III

Session No.	Room Name
4	Arista
5	Atlanta East
6	Atlanta West



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

PARALLEL SESSIONS DAY 1 WEDNESDAY, 30 OCTOBER 2019

Time	1	2	3	4	5	6
2.00 - 2.15pm	SPE-1	CRE-1	PCM-1	SHE-1	AOI-2	
2.15 - 2.30pm	SPE-2	CRE-2	PCM-2	SHE-3	AOI-4	
2.30 - 2.45pm	SPE-3	CRE-3	PCM-3	SHE-35	AOI-7	BIO-1
2.45 - 3.00pm	SPE-4	CRE-4	PCM-4	SHE-6	AOI-8	BIO-2
3.00 - 3.15pm	SPE-5	CRE-5	PCM-11	SHE-7	AOI-9	BIO-3
3.15 - 3.30pm	SPE-10	CRE-9	PCM-13	SHE-25	AOI-10	BIO-4
3.30 - 3.45pm	SPE-11	CRE-10	PCM-14	SHE-9	AOI-11	BIO-7
3.45 - 4.00pm	SPE-13	CRE-11	PCM-34	SHE-40	AOI-12	BIO-8

Time	1	2	3	4	5	6
4.15 - 4.30pm	SPE-16	PEP-4	PCM-17	SHE-11	AOI-13	BIO-14
4.30 - 4.45pm	SPE-17	PEP-16	PCM-19	SHE-13	AOI-15	BIO-10
4.45 - 5.00pm	SPE-15	PEP-17	PCM-20	SHE-14	AOI-16	BIO-11
5.00 - 5.15pm	SPE-19	PEP-19	PCM-22	SHE-15	AOI-17	BIO-12
5.15 - 5.30pm	SPE-20	PEP-20	PCM-23	SHE-17	AOI-18	BIO-13
5.30 - 5.45pm	SPE-21	PEP-21	PCM-24	SHE-18	AOI-20	BIO-15
5.45 - 6.00pm	SPE-22	PEP-23	PCM-25	SHE-19	AOI-21	BIO-16
6.00 - 6.15pm	SPE-26	PEP-29	PCM-26	SHE-23	AOI-22	BIO-17
6.15 - 6.30pm	SPE-25	PEP-40	PCM-28	SHE-24	AOI-23	BIO-18



26th Regional Symposium on Chemical Engineering

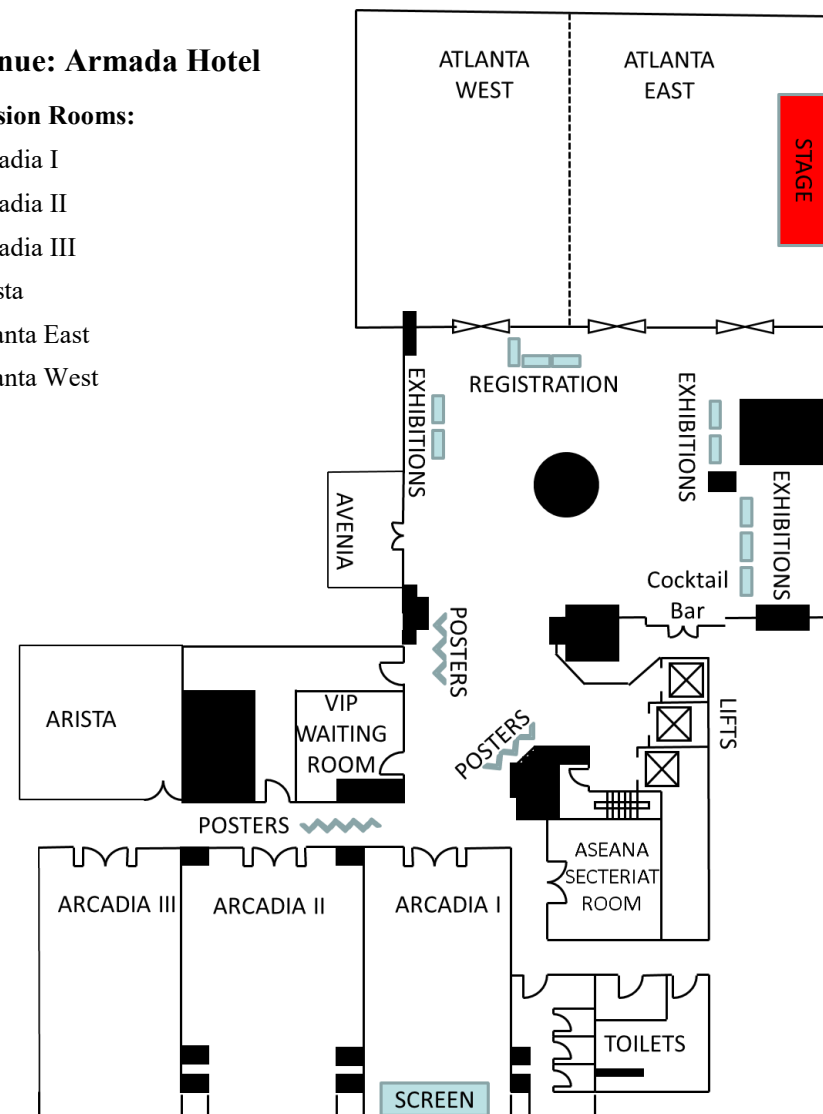
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Role of Chemical Engineering in the Era of Industrial Revolution 4.0

Venue: Armada Hotel

Session Rooms:

Arcadia I
Arcadia II
Arcadia III
Arista
Atlanta East
Atlanta West





26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

SPE-36	Proficiency Of Few-Layered Graphene Oxide Nanosheets As Promising Sorbents For Dye Pollution Management	Haiyam Mohammed Alayan, Intesar R. Hussain, Faten Hameed Kamil, Mustafa Mohammed Aljumaily, N. Awanis Hashim, Mohd. UsmanMohd. Junaidi, Che Rosmani Che Hassan
SPE-37	Comparing The Performance Of Low-Grade Nickel Ore And Limestone For Treatment Of Synthetic Acid Mine Drainage	D J A Fabella, K A N Sadol, C O Turingan, A B B Beltran, R D Alorro, and A H Orbecido
SPE-38	Distillation Column: Review of Major Disturbances	Syed A. Taqvi, Haslinda Zabiri, Lemma Dendena Tufa, Abdul Halim Shah Maulud, Anmol Fatima

	Oral Presentation
	Poster Presentation

PARALLEL SESSIONS DAY 2 - THURSDAY, 31 OCTOBER 2019

Time	1	2	3	4	5	6
11.15 - 11.30am	SPE-23	CRE-26	PCM-29	SHE-26	AOI-26	AOI-36
11.30 - 11.45am	SPE-27	CRE-29	PCM-30	SHE-28	AOI-27	AOI-37
11.45 - 12.00 pm	SPE-28	CRE-30	AOI-3	SHE-32	AOI-30	AOI-38
12.00 - 12.15 pm	SPE-29	CRE-32	PCM-33	BIO-6	AOI-31	SPE-6
12.15 - 12.30 pm	SPE-31	CRE-37	PCM-35	BIO-21	AOI-42	

Time	1	2	3	4	5	6
1.45 - 2.00pm	SPE-32	CRE-13	PCM-36	SHE-33	AOI-41	
2.00 - 2.15pm	SPE-33	CRE-40	PCM-37	SHE-34	AOI-43	
2.15 - 2.30pm	SPE-34	CRE-41	PCM-38	SHE-36	BIO-23	PEP-26
2.30 - 2.45pm	SPE-37	CRE-23	PCM-40	SHE-37	AOI-32	PEP-27
2.45 - 3.00pm	SPE-7	CRE-34	PCM-42	SHE-10	BIO-9	SPE-30

Time	1	2	3	4	5	6
3.15 - 3.30pm	PEP-2	CRE-14	CRE-36	SHE-39	PEP-11	CEE-1
3.30 - 3.45pm	PEP-5	CRE-15	PCM-43	SHE-30	PEP-28	CEE-3
3.45 - 4.00pm	PEP-7	CRE-16	PCM-44	SHE-41	PEP-30	CEE-4
4.15 - 4.30pm	PEP-8	CRE-17	PCM-45	SHE-42	PEP-31	CEE-5
4.30 - 4.45pm	PEP-10	CRE-18	PCM-46	SHE-43	PEP-33	CEE-6
4.45 - 5.00pm	PEP-13	CRE-19	PCM-47	SHE-47	PEP-36	CEE-7
5.00 - 5.15pm	PEP-15	CRE-22	PCM-31	BIO-19	PEP-37	CEE-8
5.15 - 5.30pm		CRE-24	PCM-27		PEP-38	



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

LIST OF POSTERS

AOI-5	PCM-11-2	PEP-3	SHE-2
AOI-39	PCM-15	PEP-14	SHE-4
AOI-34	PCM-21	PEP-24	SHE-20
AOI-40	PCM-32	PEP-25	SHE-22
BIO-20	PCM-39	PEP-39	SHE-38
CRE-7	PCM-49	SPE-9	SHE-44
CRE-25	PCM-50	SPE-18	SHE-45
CRE-33	PCM-51	SPE-24	SHE-46
CRE-38	PCM-52	SPE-35	
CRE-39		SPE-36	



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

SPE-23	Simulation Of The Drying Process Of Polysaccharide Extract Solution In a Spray Dryer	Tantular Nurtono, Widiyastuti Widiyastuti, Annie Mufyda Rahmatika, Siti Machmudah, and Sugeng Winardi
SPE-24	Carbon Dioxide Adsorption Using Biomass-Based Activated Carbon Functionalized With Deep Eutectic Solvents	F Hussin, M K Aroua, M Z A Roziki, and R Yusoff
SPE-25	Comparative Study Of Total Phenolic Content And Total Flavonoid Content Extraction From Guava Juices By Progressive Freeze Concentration And Evaporation	M. A. Ahmad, N. S. M. Ghazali, S. Samsuri, and M. S. H. Ruslan
SPE-26	Effect Of Stirring Rate And Freezing Time On The Percentage Of Recovery Of Residual Oil From Palm Oil Mill Effluent Via a Stirred Freeze Crystallizer	M. A. Mohamed Anuar, N. A. Amran, and M. S. H. Ruslan
SPE-27	Review: A Comparison of Conditions for The Extraction of Vegetable and Essential Oils Via Microwave-Assisted Extraction	Mohd Haffizi, Sarina Sulaiman, Dzun Noraini Jimat, and Azura Amid
SPE-28	Effect Of Addition Of Dodecyl Trimethyl Ammonium Bromide Surfactant Toward Recovery Of Bitumen From Asbuton With Modified Hot Water Process Method	Y N Ariq, F A Rahmatika, M F Susanto, Susianto, A Altway, and Z L Rinanda
SPE-29	Assessment Of Patterned Membrane In A Tilted Panel Filtration System For Fouling Control In Activated Sludge Filtration	Wan Nur Aisyah Wan Osman, MR Bilad, and Shafirah Samsuri
SPE-30	Membrane Fouling Control In Forward Osmosis For Dewatering Of Chlorella Vulgaris	S N Hidayah, M R Bilad, S M Hizam, N I M Nawi, E L A Rampun, Muthia Elma
SPE-31	Retention of Bioactive Compound in the Concentration of Centella Asiatica Extract through Progressive Freezing	N. A. Amran, N. H. Mohd Rafee, and S. Samsuri
SPE-32	Preparation of Highly Hydrophobic PVDF-HFP Membrane with Anti-Wettability Characteristic	M J Toh, P C Oh, and M I S Mohd Shaufi
SPE-33	A Critical Review On Microwave, Fluidised-Bed And Convective Air-Drying Of Low Rank Coals: The Water Diffusivity On Coals	Jasper J X Chan and C H Chong
SPE-34	Fabrication of Polythiourea-Copper Complex Composite Membrane and its Anti-fouling Property	M T Margarito, A B Beltran, MA Promentilla, A Orbecido, B Basilia, R Damalerio, and U Bigol
SPE-35	Overview on Water Desalination Technologies	Mustafa Mohammed Aljumaily, Haiyam Mohammed Alayan, Mohammed Abdulhakim Alsaadib, N. Awanis Hashim, Farouq S. Mjalli, Mohd. Usman Mohd. Junaidi, and Che Rosmani Che Hassan

26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

LIST OF PAPERS

SPE-5	Extraction Of Silica From Rice Straw Using Alkaline Hydrolysis Pretreatment	Ayu Haslija Abu Bakar and Chong Jia Ni Carey
SPE-6	Solvent Extraction And Stripping Of Transition Metals From Aqueous Media With Deep Eutectic Solvent As Extractant	P D Ola, Y Kurobe, and M Matsumoto
SPE-7	Absorption of CO ₂ in Aqueous Blend of Methyl-diethanolamine and Arginine	Ahmed Gomaa Talkhan, Mustafa. N. Nasser, Muftah H. El-Naas, Abdelbaki Benamor, S. A. El-Tayeb, and S. M. El-Marsafy
SPE-9	Extraction of Quinoline from a Mixture of N-heptane by Deep Eutectic Solvent	A F Kamarudin, M A Hashim, H F Hizaddin, and M K Hadj-Kali
SPE-10	Comparative Study Of Heat Pump Assisted Distillation Column And Its Application For Pressure Swing Distillation Process	Dyah Retno Sawitri and Arief Budiman
SPE-11	Isobaric Vapor-Liquid Equilibrium Of Methanol + Glycerol Binary Mixture At 31.3 kPa	M A Batutah, K Kuswandi, and G Wibawa
SPE-13	Nitrate Reduction Using Synthesized G-nZVI and G-nZVI-Cu Prepared from Optimized Extracted Polyphenols from Suganda Leaves	Vanessa Denise C. Aguilar, Jerome D.R. Fundano, Jeswino C. Legaspi, Darwin C. Mojica, Janselle Q. Tullao, Alister Mae A. Zafra, and Engr. Erison C. Roque
SPE-15	Capacitive Deionization Utilizing Activated Biochar – Manganese Dioxide (AB - MD) Nanocomposites For Desalination Applications	J Adorna Jr, M G Borines, and R-A Doong
SPE-16	Estimating Species Concentration In CO ₂ -Loaded Monoethanolamine Using Raman Spectroscopy	Ahmad Syukri Na'im Bin Mohd Hanafiah and Abdulhalim Shah Maulud
SPE-17	Effect Of Surface-Etched Modification On Halloysite Nanotubes (Hnts) For Polysulfone Mixed Matrix Membrane In CO ₂ /CH ₄ Separation	J Jafa, S. M. Anissuzaman, C K Chiam, N Bolong, A R Razali, A F Ismail, and N M Ismail
SPE-18	Crosslinking Modification on Polymeric Membrane for Hydrogen Selective Separation: Effect of Diamine Hydrogen Separation Performance	J H Ling
SPE-19	Microwave Assisted Extraction Of Lipid From Nannochloropsis Gaditana Microalgae Using [EMIM]Cl	S Rezaei Motlagh, R Harun, D R A Biak, and S A Hussain
SPE-20	An Overview: Analysis Of Ultrasonic-Assisted Extraction's Parameters And Its Process	Ahmad Syahir, Sarina Sulaiman, Maizirwan Mel, Maizatunisa Othman, and Siti Zubaidah Sulaiman
SPE-21	Gold Leaching from Printed Circuit Boards (PCBs) as one of the Urban Mine Resources using Thiosulphate: Optimization using Response Surface Methodology (RSM)	H B T M Petrus, A E Putra, H S A Gustiana, A Prasetya, I M Bendiya, and W Astuti
SPE-22	Study Of Progressive Freeze Concentration And Eutectic Freeze Crystallization Technique For Salt Recovery	W N A Mazli, S Samsuri, and N A Amran

Paper Code	Title	Authors
Advanced Organic And Inorganic Materials		
AOI-2	Production of Tannin-based Natural Dye from Mangrove (Rhizophora mangle) Tree Bark Waste from Wood Chips Industry : A Feasibility Study	Aswati Mindaryani, E Rahayuningsih, D T Adriyanti, L D Parthasiwi, M S Widhiastih, and F Larasati
AOI-3	Process Development of Saxagliptin Intermediate – Production of 2S-cis-4,5-Methanoprolineamide at the Kilo-scale	A. Ya Lin, Tnay, and B. Eiji Nishimura
AOI-4	Synthesis And Characterization Of Silver Nanoparticles As A Potential Sensor For Volatile Organosulfides For Visual Detection Of Postharvest Storage In Garlic	R K C Motol, C A Espineli, C M V Tapit, and C E Tiangco
AOI-5	Prediction For Aggregation Progress In Suspension Through Bubble Formed During Microwave Irradiation	Y. Okita, Y. Wada, Y. Asakuma, and A. Saptoro
AOI-7	Oil Spill Removal Using Kenaf Core Fibers As Biosorbent Material	P Siwayanan, D G Ramachandran, R Jamaluddin, and S Ahmad
AOI-8	Effect Of Alcohol/Water On Glycine Crystal Transition	H. Kokubu, Y. Shimada, and K. Onoe
AOI-9	Leaching of REY From Non-Magnetic Coal Fly Ash With Acetic Acid	H Manurung, W Rosita, F Anggara, H B T M Petrus, and I M Bendiya
AOI-10	Electrochemical Properties Of Ascorbic Acid And Folic Acid Under Acidic Solution	Noer Abyor Handayani, Elsa Anisa Krisanti, Yunita Sadeli, Sutrasno Kartohardjono, and Kamarza Mulia
AOI-11	(Calamansi) Citrofortunella Microcarpa Rind Extract As Plant Derived Green Corrosion Inhibitor For Mild Steel In 1.0M HCl	Gian Carlo E. Arguelles, Mark Ceazar D. Torres, Brian James U. Wu, Jerry G. Olay, and Renato C. Ong
AOI-12	Enhanced Production Of B-Carotene Suspensions Using Supercritical CO ₂ Via Naturally Occurring Z-Isomerization-Accelerating Catalyst	Yelin Zhang, Masaki Honda, Wahyudiono, Hideki Kanda, and Motonobu Goto
AOI-13	Utilization Of Corn Cob Waste As An Alternative Composite Material Of Motorcycle Non-Asbestos Brake Lining	Sukirman, S Ma'mun, A Fahruli, and R E Yulpando
AOI-15	Preparation Of Cationic Polyurethane Dispersion And Its Effectiveness As Denim Dye Fixing Agent	M. Sundang, C. S. Sipaut, and S. Saallah
AOI-16	Effect Of ZnCl ₂ On Properties Of Graphene Produced From Palm Empty Fruit Bunch	I F Sukmana, P Widiatmoko, I Nurdin, Devianto, and T Prakoso



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

AOI-17	Synthesis Of Precipitated Silica From Bagasse Ash As Reinforcing Filler In Rubber	M Sholeh, R Rochmadi, H Sulistyono, and B Budhijanto
AOI-18	Photocatalytic Degradation Of Atrazine Herbicide Using Nano-Hydroxyapatite From Cow Bone Synthesized Via Simulated Body Fluid	Rugi Vicente Rubi, Erison Roque, Francis Dela Rosa, Rey Martin Estoque, Gerald Olvido, Patricia Jane Perey, Jabin Sta. Teresa, and May Anne Tesalona
AOI-20	New Monopolar Arrangement Of Electrodes To Enhance The Production Of Magnetite Nanoparticles In An Electrochemical Cell	H Setyawan, P Nurlilasari, and W Widiyastuti
AOI-21	Effect Of Different Bleaching Reagents And Process Sequences On The Properties Of Steam-Exploded Empty Fruit Bunch (EFB) Fiber	M A F Supian, S Mohamad, K N M Amin, S S Jamari, J Zakaria, M F Ali, and S F S Mohamad
AOI-22	UV-Shielding Biodegradable Films Based on Carboxymethyl Cellulose Filled with Henna Extracts	N Danmatam and D Pattavarakorn
AOI-23	Preparation and Properties of Phase Change Material by Microencapsulation of Lauric Acid for Thermal Regulation	M K Gecain and R L De Leon
AOI-26	Synthesis Of TiO ₂ /Go Nanocomposite For Methylene Blue Degradation	L. D. Kasmiarno, D. Floresyona, R. Raissa, and N. S. Pambudi
AOI-27	Synthesis and Modification of Metal Nanoparticles by Plasma over an Aqueous Solution under Pressurized Argon	Wahyudiono, Hiroki Kondo, Motoki Yamada, Noriharu Takada, Siti Machmudah, Hideki Kanda, and Motonobu Goto
AOI-30	A Hydrophobic Cellulose Aerogel From Coir Fibers Waste For Oil Spill Application	M Fauziyah, W Widiyastuti, and H Setyawan
AOI-31	MnO ₂ Nanoparticles Prepared By Alternating Monopolar Arrangement Electrolysis And Their Electrochemical Performances	Widiyastuti, Heru Setyawan, Mahardika F. Rois, Hariyati Purwaningsih, and Puspita Nurlilasari
AOI-32	Mesoporous Silica Nanoparticles As Vehicles For Drug Delivery	I M Adristya, A D Suryaningtyas, J Wijaya, F C Pangestu, S B Hartono, L H Soewignyo, and W Irawaty
AOI-34	Experimental Densities And Viscosities Of Binary Mixture Of 1-Butyl-3-Methylimidazolium Bis(Trifluoromethylsulfonyl)Imide Or Sulfolane With Monoethanolamine And Their Molecular Interaction By Cosmo-Rs	Mohd Azlan Kassim, Nor Asrina Sairi, Rozita Yusoff, and Mohamed Kheireddine Aroua
AOI-36	Sulfur Copolymers (SDIB) From Inverse Vulcanization Of Elemental Sulfur (S ₈) For Polymer Blend	Ronaldo P Parreño Jr, Ying-Ling Liu, and Arnel B Beltran
AOI-37	Synthesis of Phenol Formaldehyde Resin with Paraformaldehyde and Formalin	Nuruldiyana Kamarudin, Dayang Radiah Awang Biak, Zurina Zainal Abidin, Francisco Cardona, and Mohd Sapuan Salit



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

SHE-37	Life Cycle Assessment of Refuse Derived Fuel (RDF) for Municipal Solid Waste (MSW) Management: Case Study Area Around Cement Industry, Cirebon, Indonesia	T T Anastasia, E Lestianingrum, R B Cahyono, and M M Azis
SHE-38	Dynamic Simulation Of Insulin-Glucose Interaction In Type 1 Diabetes With MATLAB Simulink®	Muhammad Mufti Azis, Jonas Kristanto, and Sarto
SHE-39	Acute Toxicity Assessment Of Heavy Metals Combination Using Microtox m500 Instrument	Amirul Ashraf bin Abdul Razak and Dzulkarnain bin Zaini
SHE-40	Adsorption of Ammonium Ions Using Activated Carbon Derived from Artocarpus odoratissimus Skin	S M Anisuzzaman, A Y Zahrim, M Rajin, S Saalah, N M Ismail, R Duraim, and D Krishnaiah
SHE-41	Effect Of Biocover Thickness On Methane Oxidation Rate Of Landfill Gas Emission From Municipal Solid Waste Landfill In Tropical Climate Region	Yusnan, F. Razi, and E. Munawar
SHE-42	Evaluation of Hydrocarbon Gas Dispersion and Explosion in a Gas Processing Plant	D Rismayasari, Y W Budhi, J Rizkiana, T Cahyono, and Khairunnisa
SHE-43	Cogeneration System For Energy Saving And CO ₂ Emission Reduction: A Case Study Of Textile Factory	P Sommani, T Krittamataporn, and A W Lonthongkum
SHE-44	Attitude And Perception On The Disposal Of Pharmaceuticals And Personal Care Products In Malaysia: A Review	Marina Binti Muhamad and Fathiah Binti Mohamed Zuki
SHE-45	Safety Culture Level Among Workers In The Selected Manufacturing Plant	Junaidah Zakaria, Che Rosmani Che Hassan, Mahar Diana Hamid, Ezrin Hani Sukadarin, and Zakaria Razak
SHE-46	Removal Of 4-Nitrophenol From Aqueous Solution By Using Recycled Carbon Black (rCB) From Waste Tires	Nor Ashikin Ahmad, Umi Fazara MD Ali, Mohd Hairul Khamidun, and Wen-Li Chen
SHE-47	Adsorption Of 4-Nitrophenol From Wastewater Using Sea Mango (Cerbera odollam) Based Activated Carbon	Nurul Zufarhana Zulkurnai, Nor Wahidatul Azura Zainon Najib, Umi Fazara Md Ali, and Tan Ru Shien
Separation And Purification Engineering		
SPE-1	Total Phenolic Content And Antioxidant Activity Of Pandanus Amaryllifolius By Soaking And Microwave-Assisted Extraction	Nurul Asyikin Md Zaki, Syafiza Abd Hashib, Ummi Kalthum Ibrahim, and Putri Ani Narisa Ahmad Bakhtiar
SPE-2	Mass Transfer Evaluation Of Substrate, Intermediate Products And Inhibitors In Membrane Bioreactor On Biogas Production	M Hidayat, I G Kurniawan, M A Prakosa, S Dökümcü, R Millati, and M N Cahyanto
SPE-3	Development Of Recovery Technology Of Valuable Metals From Sea Water	J. San and K. Onoe
SPE-4	Characterization of Expanded Perlite from Lamba, Albay, Bicol as an Adsorbent Medium and the Design of a Fixed-Bed Column for the Adsorption of Cd (II) and Pb (II) from Synthetic Rainwater	E C Datul, J M A Surot, J M B Toledo, and L D B Pestaño



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SHE-20	Nitrate Removal From Aqueous Solution By Adsorption Using Municipal Solid Waste-Derived Activated Biochar	Patricia Nadine D. Revilla, Monet Concepcion Maguyon-Detras, Veronica P. Migo, and Catalino G. Alfara
SHE-22	Effect Of Venting On The Explosion Of Aluminium-Silver Powder Mixtures	Khairiah Mohd Mokhtar, Che Rosmani Che Hassan, Rafiziana Md Kasmani, Mahar Diana Hamid, and Mohamad Iskandr Mohamad Nor
SHE-23	Nutrient Recovery From Slaughterhouse Wastewater	S Sreyvich, H T B M Petrus, and C W Purnomo
SHE-24	Ammonium Ion Removal using Activated Zeolite and Chitosan	N N Safie and A Y Zahrim
SHE-25	The Effect of Flow Rate and NaCl Concentration on the Corrosion Behavior of Carbon Steel in NaCl Solutions Containing H ₂ S	Indah Dwi Rachmawati, Isdriyani Nurdin, Pramujo Widiatmoko, Hary Devianto, Festi Irmayanti, and Samuel Saptohadhi
SHE-26	The Effect of Leachate Recirculation on The Greenhouse Gases Emission from Municipal Solid Waste (MSW) Landfill in Tropical Climate Region	Q H Ali, S R Sugihen, E Munawar, and Adisalamun
SHE-28	Exergy analysis and energy utilization in the transportation sector of the Philippines	R J Q Buenafe, R A P Lomeda, R R C Rivera, C L Tagalog, and A N Soriano
SHE-29	Characterization Of Hydrogel Biochar From Palm Fibre Potential As Adsorbent For Hydrogen Sulphide Removal	Norhayati Binti Talib, Zahidatunnisa' Binti Mustafa Fauzi, Nor Madyzah Ahmad, Muhamad Amirulrafik Bin Amiruddin, and Azil Bahari Alias
SHE-30	Sustainability Assessment Of Levulinic Acid And Succinic Acid Production From Empty Fruit Bunch	R H Hafyan, L Bhullar, Z A Putra, M R Bilad, M D H Wirzal, and N A H M Nordin
SHE-32	Phosphorus Recovery From Septage Treatment Plant Sludge By Struvite Formation With Alkaline Hydrolysis As Pre-Treatment	C K L Nocheffranca, Z K C Oyson, A B San Pedro, C M Pausta, R Damalerio, M B Promentilla, A B Beltran, D Saroj, and A H Orbecido
SHE-33	A Comparison Of The Acid Mine Drainage (AMD) Neutralization Potential Of Low Grade Nickel Laterite And Other Alkaline-Generating Materials	C. Turingan, G. Singson, B. Melchor, R. Alorro, A. Beltran, and A. Orbecido
SHE-34	Effect of Coolant Temperature and Stirring Rate in the Separation of Oil from Bilge Water using a Stirred Freeze Crystallizer	S. N. A. Mustapha, N. A. Amran, and S. Samsuri
SHE-35	Simulation of Natural Gas Dispersion and Explosion in Vented Enclosure using 3D CFD FLACS Software	Juwari, Renanto Handogo, Teguh Cahyono, Mochamad Safarudin, Rendra Panca Anugraha, Fadhillatul Aulia, Nuvies Dwi Kurniaty, Muhamad Reza Habibi, and Muhammad Nuur Kharisma
SHE-36	Integrated Life Cycle Assessment-Analytic Hierarchy Process (LCA-AHP) With Sensitivity Analysis Of Phosphorus Recovery From Wastewater In Metro Manila	Carla Mae J. Pausta, Luis F. Razon, Aileen H. Orbecido, Devendra P. Saroj, and Michael Angelo B. Promentilla

AOI-38	Effect Of Forming Temperature On Properties Of Biocoke From Palm Oil Residues	Peeradej Saisersak and Jintawat Chaichanawong
AOI-39	Reinforcement of Natural Rubber with Cellulose Nanofibers Isolated from Oil Palm Empty Fruit Bunch	Darren Yi Sern Low, Janarthanan Supramaniam, Abdul Hasif Bin Abd Rahim, Bey Fen Leo, Beng Ti Tey, and Siah Ying Tang
AOI-40	Transport Properties of Evaporative Cooling in a Seashell Packed Bed Cooling Tower	Amalina Syahirah Amir Kusin, Siti Aishah Afifah Zahari, Mohd Irfan Hatim, Mahfuz Afif Mohd Ruslan, Mohd Nabil Adzim, Razif Omar, Mohd Sanj Jamailudin, Ahmad Radi Wan Yaakub, and Syazwani Mahmad Puzi
AOI-41	Unravelling the Swelling Behaviour and Antibacterial Activity of Palm Cellulose Nanofiber-based Metallic Nanocomposites	Janarthanan Supramaniam, See Kiat Wong, Bey Fen Leo, Loh Teng Hern Tan, Bey Hing Goh, and Siah Ying Tang
AOI-42	The Effect Of Hydrophobic Particles On Evaporation Rate In A Solar Steam Generation System	Tomomi Hasegawa and Wuled Lenggoro
AOI-43	Synthesis and Characterization of Fe ₃ O ₄ Nanoparticles Using Different Experimental Methods	Nafis Mahmud, Mustafa S. Nasser, Muftah H. El-Naas, Muneer M. Ba-Abbad, Abdul Wahab Mohammad, Said Mansour, and Abdelbaki Benamor
Biomedical And Biotechnology Engineering		
BIO-1	Comparative Study Between Avian Cell And Mammalian Cell In Production Of Influenza Vaccine Syaria Compliance	F N Aliya Mohamad Ros, Norliza Abd Rahman, Jarinah Mohd Ali, Nurina Anuar, Siti Rozaimah Bt. Sheikh Abdullah, and Amir Fazlim Bin Jusoh @ Yusoff
BIO-2	The Numerical Estimation of Mass Transfer Coefficient of Oxygen in the Large-Scale Suspension Culture of iPS Cells	R Isobe, Y Kanemaru, A Sekimoto, Y Okano, and M Kino-Oka
BIO-3	The Effect Of Uric Acid In The Detection Of Calcium Stones In Urine Through Turbidimetry Method	P A Bacani, J A Maglaqui, A A Tadeo, and E Quinto
BIO-4	A Preliminary Study of Extraction and Purification Processes of Astaxanthin from Haematococcus pluvialis as a Natural Antioxidant	P R Dewati, Rochmadi, A Rohman, and A Budiman
BIO-6	Preliminary Study On The Treatment Of Textile Effluent Using Ascomycotina Fungus Letendrea Helminthicola BAMF1	Ira Puspita Sari and Khanom Simarani
BIO-7	Biopolymeric Encapsulation Of Probiotics For Improved Release Properties In The Gastrointestinal Digestion System	N A Mohammad, D N A Zaidel, I I Muhamad, M A Hamid, H Yaakob, and Y M M Jusoh
BIO-8	Characterization Of Chitosan From Extracted Fungal Biomass For Piezoelectric Application	F. B. Ahmad, M. H. Maziati Akmal, A. Amran, and M. H. Hasni



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BIO-9	Production Of Enzymes From Pineapple Crown And Coffee Husk By Solid State Fermentation	Noraziah Abu Yazid and Ainur Razanah Roslan
BIO-10	Effect of Pore Size of Monofilament Woven Filter Cloth as Supporting Material for Dynamic Membrane (DM) Filtration on Performance using Aerobic Membrane Bioreactor Technology (MBR)	Mahat. S.B., Omar. R., Ling. L.J., Mohd Idris A.I., Che Man. H., Mustapa Kamal S.M., and Idris. A.
BIO-11	The Optimal Condition on the Growth of Green Haematococcus Pluvialis as one of the Future Natural Resources	Judy Retti Witono, Alvin Gunadi, Herry Santoso, Arry Miryanti, and Angela J. Kumalputri
BIO-12	Determination of Diffusion Coefficients and Antioxidant Activities of Ascorbic Acid in Guava Juice using Cyclic Voltammetry	K. B. A. Ang, C. M. Lee, H. M. O. Yu, M. Uy, A. N. Soriano, and N. P. Dugos
BIO-13	Performance of Stored Electrolyzed Seawater for Disinfection of Pseudomonas aeruginosa	Michelle Joan C. Ferrer, Ryan Kenneth L. Lim, Russell Dillon A. Cue, Arnel B. Beltran, Regina G. Damalerio, and Marigold O. Uba
BIO-14	Acetate switch in Methanococcus maripaludis	C.H. Vo, I.A. Karimi, and M. Kraft
BIO-15	Evaluation Of Spirulina Platensis In Bicarbonate-Based Integrated Carbon Capture And Algae Production System Utilizing Different Culture Media	C C Batac, N S Gathercole, A F Maravilla, and A B Beltran
BIO-16	Bioethanol Production From Microalgae Chlorella Sorokiniana Via Simultaneous Saccharification And Fermentation	N J Tatel and C Madrazo
BIO-17	Microencapsulation of Riboflavin (Vitamin B ₂) using Alginate and Chitosan : Effect of Alginate and Chitosan Concentration upon Microcapsule Diameter	YC. Danarto, Rochmadi, and Budhijanto
BIO-18	Microparticles of Ganoderma lucidum Extract Generated by Electrospraying	Siti Machmudah, Dwi Setyorini, Sugeng Winardi, Wahyudiono, Hideki Kanda, and Motonobu Goto
BIO-19	Evaluation of different carbonate sources for bicarbonate- based integrated carbon capture and algae production system using Spirulina platensis	C C Batac, N S Gathercole, A F Maravilla, and A B Beltran
BIO-20	Synthesis And Characterization Of Sugarcane Bagasse Cellulose-Capped Silver Nanoparticles Using Ultrasonic Irradiation	Abdul Aziz Abdul Raman, Yong Bin Chin, Archina Butiyappan, and Mohd Izzudin Izzat Zainal Abidin
BIO-21	Synthesis of Bioactive Glass using Cellulose Nano Fiber Template	M Sarmast. Sh, S George, C. AB Dayang Radiah, N Abdullah, and S Kamarudin
BIO-23	Optimization Of Enzyme Assisted Extraction Of Palm Oil Rich In Antioxidant Capacity	Hemavathi Silvamany, Jamaliah Md Jahim, and Ahmad Jaril Asis



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SHE-4	COD Treatment Of Printing Ink Wastewater By Column Adsorption Using Activated Carbon	Ayu Haslija Abu Bakar and Veni Elvira
SHE-5	Investigating The Explosion Characteristics Of Engineered Nanomaterials (ENMs)	S H N Zahari, R Rusli, and A Buang
SHE-6	Experimental Study Of Batch Electrocoagulation Treatment Of Peat Water In Sarawak With Aluminium Electrodes	N Abdul Rahman, A Albania Linus, U J Gilan, E E Jihed, N K M F Kumar, A Yassin, and A Philip
SHE-7	The Permit To Work In Relation With Occupational Accident At Petrochemical Plant	Nizar Jusoh, Mohamad Wijayanuddin Ali, Tuan Amran Tuan Abdullah, and Alias Husain
SHE-8	Design of Carbon Dioxide Capture Process for Utilization	Y. Kansha and Y. Sato
SHE-9	Immobilization Of Cadmium (Cd ²⁺) In Contaminated Soil Using Biochar Derived From Calophyllum Inophyllum (Bitaog) Seed Husks	J L Oblepias, T N Pana, M Villanueva, and M N Dimaano
SHE-10	Combined Natural And Chemical Coagulants To Remove Fluoride From Wastewater	V L Chee, C H Chong, C M Choo, and Thomas S Y Choong
SHE-11	Development Of Low-Cost Aerobic Bioreactor For Decentralized Grey Water Treatment	A Paramesti, B A Damarjati, A Widyaparaga, Deendarlianto, A Mindaryani, L Marbelia, and W Budhijanto
SHE-13	Optimization Of Progressive Freeze Concentration On Stormwater Purification Via Response Surface Methodology	F H Ab Hamid, S A Salim, and M S Mat-Shayuti
SHE-14	The Steps in Preventing, Monitoring and Removing of Fouling Scale on Operation of Evaporator	Zainus Salimin, Lilis Kistriyani, and Ratiko
SHE-15	Bio-Remediation Of Palm Oil Mill Effluent (POME) Using Aspergillus Niger Immobilized On Coconut Husk And Free Cell Fermentation	P Thegarathah, J Jewaratnam and K Simarani
SHE-16	A Comparative Study Of Conventional Aerator And Microbubble Generator In Aerobic Reactor For Wastewater Treatment	Lisendra Marbelia, Athina Wan Noor, Asa Paramesti, Bimo A. Damarjati, Adhika Widyaparaga, Deendarlianto, Muhammad R. Bilad, and Wiratni Budhijanto
SHE-17	A Comparative Study of Conventional Aerator and Microbubble Generator in Aerobic Reactors for Wastewater Treatment	Lisendra Marbelia, Athina Wan Noor, Asa Paramesti, Bimo A. Damarjati, Adhika Widyaparaga, Deendarlianto, Muhammad R. Bilad, and Wiratni Budhijanto
SHE-18	Adsorption Of Copper, Nickel And Chromium Ions Using Silica Aerogel Synthesized By Ambient-Pressure Drying And Modified With EDTA	B Pornchuti, B Pongpattananurak, D Sutthiard, and P Singtothong
SHE-19	Chromium Removal From Chrome-Tannery Effluent After Alkaline Precipitation By Adsorption Using Municipal Solid Waste-Derived Activated Biochar	Julienne Eris L. Parañaque, Monet Concepcion Maguyon-Detras, Veronica P. Migo, and Catalino G. Alfafara

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PEP-27	Effect Of Glucose Concentration And Cultivation Days On Chlorella Vulgaris Growth Via Immobilization Technique For Biodiesel Production	N R Abu Sepian, N H Mat Yasin, and N Zainol
PEP-28	Pyrolysis and Carbon Dioxide Gasification Kinetics of Pine Cones and Lignite Blends	Janica Y. Ang, Perry C. Dee, Amos B. Tan, and Vergel C. Bungay
PEP-29	Biogas Production From Cassava Waste: Effects Of Temperature And Concentration	P Kohmucan, N Boonrod, and A Wongkoblap
PEP-30	Process Design and Steady State Simulation of Natural Gas Dehydration Using Triethylene Glycol (TEG) to Obtain The Optimum Total Annual Costs (TAC)	N Kharisma, P S D Arianti, S A Affandy, R P Anugraha, Juwari, and Renanto
PEP-31	Surface Modified Silica Nanoparticles With Hexytrimethoxysilane For Carbon Dioxide Foam Stabilization In Enhanced Oil Recovery	Tengku Amran Tengku Mohd, Azwan Harun, Noor Fitrah Abu Bakar, Muhammad Shafiq Mat Shayuti and Mohd Zaidi Jaafar
PEP-33	Application Surfactant-Polymer Flooding For Improving Oil Recovery In The Indonesian Oil Field	W Hasokowati, Rochmadi, S Purwono, B Murachman, J Wintoko, A T Yuliansyah, and M M Aziz
PEP-36	Kinetic Analysis Of Co-Pyrolysis Of Biomass/Sorbent Mixtures At Different Ratios	A R Ariffen and N Yusoff
PEP-37	An Investigation On The Effect Of Silica Nanoparticle Concentration On Oil-Based Mud Rheology And Fluid Loss Control Characteristic	Wan Zairani Wan Bakar, Ismail Mohd Saaid, Husna Hayati Jarni, Noor Aqsa Nadeea Mat Isa, Arina Sauki, and Muhammad Shafiq Mat Shayuti
PEP-38	Optimization of Small-Scale Natural Gas Liquefaction using Nitrogen Expander with Precooled Cycle	M A Henryawan and W W Purwanto
PEP-39	Effect Of Temperature And Concentration Of Industrial Waste Graphene On Rheological Properties Of Water Based Mud	Putri Humairah Monashofian Putra, Badrul Mohamed Jan, Mohamad Fazly Abdul Patah, and Mohd Usman Mohd Junaidi
PEP-40	Rheological Study Of Oil Palm Trunk Waste As Viscosifier Agent On Water-Based Mud	Husna Hayati Binti Jarni, Mohd Firdaus Bin Sariman, Arina Binti Sauki, Wan Zairani Binti Wan Bakar, and Tengku Amran Bin Tengku Mohd

SHE And Environmental Engineering

SHE-1	Incineration Of Ammonia Wastewater And The Effect To Environment	A. A Rahim B Norman, B. Noorhidayah Bt Hussein, and C. Fadzlul Izwan B M Ali
SHE-2	Sensitivity Analysis Of Small Scale Biomass Gasification-Based Chp System: A Way Forward For Sustainable Urban Waste To Energy Technology	A R Rasid, I H Abdullah, C W Siaw, M F Zamil, Z F Mohd Shadzalli, A Abbas, and N Abdul Manaf
SHE-3	Treatment And Recycling Of Wastewater From Food Industry Using Fixed-Bed Adsorption on the Tertiary Stage	Ayu Haslija Abu Bakar and Priya Thaarani



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Chemical Engineering Education		
CEE-1	Early Intervention of Process Simulation and Automation Teaching in Chemical Engineering	Fadzlul Izwan Muhd Ali, Zulfan Adi Putra, Farah Syamim Anwar, Zalina Harun, Haslinda Zabiri, and Shahrul Azman Zainal Abidin
CEE-3	The Development Of An Iron Detection Method Based On Ammonium	Nadine Jenina A. Gallardo, Gemma Fae T. Monakil, Sheena I. Surla, and Edna C. Quinto
CEE-4	Amine-based Carbon Dioxide Absorption: The Effect of Ionic Strength on the Protonation Constant of Monoethanolamine and Its Temperature Dependency	S Ma'mun, P K Setiawan, and E Indrayanto
CEE-5	Calorimetry Technique For Observing The Evolution Of Dispersed Droplets Formation Of A Water-In-Oil Emulsion	Endarto Y. Wardhono, Sri Agustina, Mekro P. Pinem, Danièle Clausse, Khashayar Saleh, and Erwann Guénin
CEE-6	Study and Experimental Setup of Liquid-Solid Fluidization in Rangsit University	S. Chunsawang and W. Ekasilp
CEE-7	Role Of Operator Training Simulator (OTS) In Capability Building Towards The Fourth Industrial Revolution (IR 4.0)	A. Hasnor Hassaruddin Hashim, and B. Noorhidayah Hussein
CEE-8	Conceptual Design of a Process Plant for the Production of Natural Dye from Merbau (Intsia bijuga) Bark	E Rahayuningsih, A Mindaryani, D T Adriyanti, L D Parthasiwi, P Adina H, and E Dyah A
Chemical Reaction Engineering		
CRE-1	Recovery of Gold from Pregnant Thiourea Leaching Solution by Synergistic Extraction	Mohd Jumain Jalil, Haris Halimi Mohd Azam Zaki, Intan Suhada Azmi, Ariff Aminuddin Ahmad Zulkifli, and Muhammad Hazim Abu Bakar
CRE-2	Overcome The Equilibrium Limitation In Para-Xylene Production By Using Reactive Distillation Method	Quy Phu Nguyen, Kim Trung Nguyen, Tuan Anh Nguyen, and Fuchino Tetsuo
CRE-3	Simulation and Parametric Study of the Innovative Process to Produce High Purity Isopropyl Acetate with Ethylene Oxide Hydration as an Auxiliary Reaction	I G P Wiratama and V Novianty
CRE-4	Kinetic study of epoxidation of Tung oil (Reutealis trisperma (Blanco) Airy Shaw) by peroxyacetic acid	E Budiyati, Budhijanto, A Budiman, and Rochmadi
CRE-5	Bio-Hydrocarbon Production From Sorbitol Using Fei2 To Accelerate HI Regeneration Reaction	Rina Krisnayana, Subagio, CB Rasrendra, and Tatang Hernas Soerawidjaja
CRE-7	Synthesis Of Graphene Oxide From Industrial Waste	W C Siaw, T Tsuji, N Abdul Manaf, M F Abdul Patah, and B Mohamed Jan



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

CRE-9	Microwave-assisted Acid Pretreatment of Sago Wastewater for Fermentable Sugar Production	Noor Illi Mohamad Puad, Ummul Madiah Mohd Rashidi, Azlin Suhaida Azmi, and Mohd Firdaus Abd Wahab
CRE-10	Pseudo-homogeneous Kinetic Evaluation for in-situ Epoxidation of Oleic Acid	Dyah Retno Sawitri, Panut Mulyono, Rochmadi, and Arief Budiman
CRE-11	Mechanism And Kinetic Model For Glycerolysis Of Shellac	D T Hartanto, Rochmadi, and Budhijanto
CRE-13	Characterization and Catalytic Activity of γ -Al ₂ O ₃ -ITB on Methanol Dehydration	A Ardy, J Rizkiana, M L Gunawan, and H Susanto
CRE-14	Life Cycle Assessment Of Ethylene Production From Empty Fruit Bunch	R Akmalina and M G Pawitra
CRE-15	Effect Of Reaction Parameters On Lipase-Catalyzed Kinetic Resolution Of (RS)-Metoprolol	Asiah Zulkifli, Mariani Rajin, Sariah Abang, S.M Anissuzzaman, and Azlina Harun@ Kamaruddin
CRE-16	Electrospray Synthesis And Photocatalytic Activities Of ZnO-SiO ₂ Composites Particles	L Qomariyah, W widiyastuti, K Kusdianto, T Nurtono, D Anggoro, and S Winardi
CRE-17	Kinetic Analysis on Reduction of Carbon-Infiltrated Porous Hematite by Curve Fitting Method	K Abe, A Kurinawan, K Ohashi, M Sanada, T Nomura, and T Akiyama
CRE-18	Kinetic Study of Simultaneous Ethanol Decomposition and Reduction of Low-grade Iron ore at Transient Temperature	A Kurniawan, K Abe, M Sanada, T Nomura, and T Akiyama
CRE-19	Size-Selective Treatment of Polypropylene Particles in a Plasma Cyclone Reactor	H. Sekiguchi, S. Kodama, K. Ishikawa, and K. Miyazaki
CRE-22	Aspen Plus Simulation-Based Parametric Study Of Benfield Process Using Hot Potassium Carbonate Promoted By Diethanolamine	L W W Ngu, A Mahmoud, and J Sunarso
CRE-23	Exsolution Of Nickel Alloys Anchored Nanoparticles On Perovskite Oxides For CO Oxidation	W K Wan Ramli, E Papaioannou, D Naegu, and I S Metcalfe
CRE-24	Wetted Wall Photocatalytic Reactor for Methylene Blue Degradation	Amornpon Boonying, Artith Kasempresak, Supunee Junpirom, and Aroonsri Nuchitprasitichai
CRE-25	A Facile Synthesis Of Cu ₂ O And Cu ₂ Fe Mixed-Oxide Catalysts By Solution Combustion Method For Catalytic Methane Combustion	P Krueemek, S Mattathankul, N Triamnak, and N Chotigkrai
CRE-26	Lactic Acid Production from High Concentration of Invert Sugar in Semi-Batch Reactor	R Sirisangsawang and P Kitchaiya
CRE-29	Effect Of Urea Loading On The Anodic Synthesis Of Titania Nanotube Arrays Photoanode To Enhance Photoelectrochemical Performance	Tiur Elysaeth, Kamarza Mulia, and Slamet
CRE-30	Preliminary Modified Biodiesel Production By Coupling Reactive Distillation With A Steam Reformer Via Aspen Plus®	C Treewatchakul



26th Regional Symposium on Chemical Engineering

RSCE 2019@ Kuala Lumpur

Role of Chemical Engineering in the Era of Industrial Revolution 4.0

PEP-10	The Optimization Of Natural Gas Utilization Network In Single Region Using Pinch Analysis Method	R P Anugraha, Annasit, A Altway, Juwari, and Renanto
PEP-11	The Effect of Clay Content in the Adsorption of Surfactant by Reservoir Rock in the Enhanced Oil Recovery Process	L Nurmawanti, S Y P Dewi, B Murachman, and S Purwono
PEP-12	Application of Surfactant-Polymer Flooding for Improving Oil Recovery in the Indonesian Oil Field	W Hasokowati, Rochmadi, S Purwono, B Murachman, J Wintoko, A T Yuliansyah, and M M Azis
PEP-13	Agile Solar Roof Tile Hvac	S Sinha, N Abdul Manaf, K Pethe, M Tri Luu, D Milani, A Abbas
PEP-14	Production Of Bio-Based Phenolic Resin From Bio-Oil Derived From Fast Pyrolysis Of Sugarcane Bagasse	Syahirah Faraheen Kabir Ahmad, Umi Fazara Md Ali, and Khairuddin Md Isa
PEP-15	Acetalization Of Glycerol With Acetone To Produce Solketal As Fuel Additives Using Amberlyst-15 Catalyst	H. Sulisty, E. N. Huda, T. S. Utami, W. B. Sediawan, S. S. Rahayu, and M. M. Azis
PEP-16	Impact Of Biomass Upgrading Via Hydrothermal Treatment On Slagging And Fouling During Cofiring With Coal	Mi Yan, Dicka Ar Rahim, Herri Susanto, Rahmad Dennie Agustin Pohan, and Dwi Hantoko
PEP-17	Fabrication of ZnO-SiO ₂ Nanocomposite Materials Prepared by a Spray Pyrolysis for the Photocatalytic Activity under UV and Sunlight Irradiations	K Kusdianto, W Widiyastuti, M Shimada, L Qomariyah, and S Winardi
PEP-19	Sequential Thermal and Power Integration for Locally Integrated Energy Sector	P Y Lee, P Y Liew, and T G Walmsley
PEP-20	Effect of DMPA Content on Colloidal Stability of Jatropha Oil-based Waterborne Polyurethane Dispersion	N S Nurdin, S Saalah, A T Lim, A Y Francis, L Abdullah, and S SaifulAzry
PEP-21	Study Of Glycerolysis Of Lactic Acid	Suprihastuti S Rahayu, D M Putra, and A Hasna
PEP-22	Experimental Study On Cracking Of Tar Derived From Municipal Solid Waste Gasification	Mi Yan, W. Goubin, D. Ar Rahim, and P. M. Ruya and H. Susanto
PEP-23	Black Liquor Droplet Swelling Model During Pyrolysis	J Wintoko, S Purwono, M Fahrurrozi, and B Soehendro
PEP-24	Synthesis of Biodiesel from Kapok Seed Oil using CaO/Rice Husk Ash Catalyst and Its Comparison with Homogeneous Catalyst	Maydina Dysca Sanada, Sari Arista, Bachrun Sutrisno, Winarto Kurniawan, Arif Hidayat, Hirofumi Hinode
PEP-25	Biodiesel Synthesis over Biochar-based Catalyst from Sengon (Paraserianthes falcata L. Nielsen) Sawdust using Palm Fatty Acid Distillate as Low-Cost Feedstock	Arif Hidayat and Bachrun Sutrisno
PEP-26	Barium Sulfate Scale Dissolution Using Ethylenediaminetetraacetic Acid (EDTA)	Sazali, R.A., Awang Kechik, N.I., Yahya, E., and Mat-Shayuti, M.S.



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RSCE 2019@ Kuala Lumpur

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PCM-46	Artificial Neural Network Topology Optimization using K-Fold Cross Validation for Spray Drying of Coconut Milk	Jesse Lee Kar Ming, Farah Saleena Taip, Mohd Shamsul Anuar, Samsul Bahari Mohd Noor, Zalizawati Abdullah
PCM-47	Process Simulation Of The Pilot Scale Bioethanol Production From Rice Straw By Aspen Hysys	Phung K Le, Tin D T Le, Quan D Nguyen, Viet T Tran, and Phong T Mai
PCM-48	Modeling Of Metallocene Catalyzed Propylene Polymerization In Fluidized Bed Reactors	Chew-Sang, Law, Mohd Azlan Hussain, and Zheng-Hong Luo
PCM49	Novel Training Algorithm For Interval Type 2 Fuzzy System With Limited Of Training Dataset	M. F. Zanil and K. M. Lee
PCM-50	Supply Chain Pinch Analysis To Optimal Planning Of Biogas Production	Z. Y. Kow, J. Tan, P. L. Kiew, and M. F. Zanil
PCM-51	Modelling And Optimization Of The Heat Pump System For The Usage Of Swimming Pool	M. J. Lau, M. F. Zanil, S. Y. Choong, and J. Tan
PCM-52	A Novel Model For Prediction Of Refractive Index Of Ionic Liquids And Alcohol Binary Systems	S. Kazemi, M.I. Mohamad Nor, W.H. Teoh, and N. Kazemi
Process For Energy And Petroleum Engineering		
PEP-1	Methanol Production From Algae Biomass Gasification Derived Syngas: A Modeling Study	Mattana Santasnachok, Ekkachai Sutheerasak, Charoen Chinwanicharoen, and Wirogana Ruengphrathuengsuka
PEP-2	Effect of Gasification Temperature on Synthesis Gas Production and Gasification Performance for Raw and Torrefied Palm Mesocarp Fibre	N H A Halim, S Saleh, and N A F A Samad
PEP-3	Improvement of Gasification Efficiency with Consideration for Microwave Input Power on Biogas Reformulation by Microwave Plasma Assisted Combustion	T. Yamamoto, S. Uchiyama, H. Matsune, and M. Kishida
PEP-4	Sequential Optimization Of a Water-Based Polygeneration System In Ethylene Glycol Production	Triana Prihatin, Shuhaimi Mahadzir, and M. Ibrahim A. Mutalib
PEP-5	Investigation Of Water-Flooding Activity Using Radiotracer Technology In Commercial Core-Flood Set Up	N Othman, I M Saa'id, A Ahmed, N H Yusof, R Yahya, M A S Mohd Yunos, E M S Engku Chik, M R Shari, H Hassan, and A A Mahmood
PEP-6	Micro-Droplet Membrane Reactor For Biodiesel Production	KCS Liew, NAH Nordin, MR Bilad, Aulia Rahma, and Muthia Elma
PEP-7	Production And Characterization Of Biodiesel From Annona Muricata Seed Oil	J R Avendaño, S Canlas, M Falalimpa, and M N Dimaano
PEP-8	Thermogravimetric Analyses (TGA) Of Three Oil Palm Biomass Pyrolysis: Kinetics And Reaction Mechanisms	Megan Soh, Juan Jing Chew, and Jaka Sunarso



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CRE-32	Validation Of Mathematical Model Of Hydrotropic-Reactive Extraction Of Lignin	I Hartati, W B Sediawan, H Sulistyio, M M Azis, and M Fahrurrozi
CRE-33	Kinetic Studies of the Glycerolysis of Urea to Glycerol Carbonate Using Amberlyst-15 as Catalyst	W.B. Sediawan, H. Sulistyio, R.I.D. Suyatmo, and I.Hartati
CRE-34	Use Of Metal Mesh To Assist The Multi-Phase Reaction In A Microreactor	P Charoenpong and V Pavarajarn
CRE-36	Optimization Of The Production Of A Complete Fertilizer Formulation By Batch Impregnation Using Clinoptilolite Zeolite As Carrier	N B J Catli, V P Migo, C G Alfafara, M C Maguyon- Detras, and C C P Brutus
CRE-37	Parameters Study On The Production Of Isoamyl Acetate Via Milli-Reactor In A Solvent-Free System	Nuraini Mansor, Rajaviknesswaran Singaravellan, and Syamsul Rizal Abd Shukor
CRE-38	Synergistic Effect With And Without Ni Metal Over ZSM-5/ SAPO-11 Catalyst In Hydrodeoxygenation Of Palm Oil	Saima Khan, Muhamad Fazly Abdul Patah, and Wan Mohd Ashri Wan Daud
CRE-39	Comparative Performance of Catalytic and Non-Catalytic Pyrolysis of Sugarcane Bagasse in Catatest Reactor System	Syahirah Faraheen Kabir Ahmad, Umi Fazara Md Ali, Khairuddin Md Isa, Alina Rahayu Mohamed, and Omneswary Sataimurthi
CRE-40	Selective Short Chain Carboxylic Acid Production over Fe: Zeolite Nanoparticles from CO ₂ Hydrogenation Reaction	Nurazni Amat Bahari and Wan Nor Roslam Wan Isahak
CRE-41	Kinetic Study Of Low-Density Polyethylene Waste Pyrolysis Using Kaolin As Catalyst	Emi Erawati, Hamid, and Danik Martenda
Process Control And Modelling		
PCM-1	Offset-free control of a pH system using Multiple Model Predictive Control	A W Hermansson and S Syafie
PCM-2	Designing Real Time Model Mobile Monitoring System For Model Predictive Control (MPC) In Nonlinear CSTR Control	Danny Hartanto Djarum and Zainal Ahmad
PCM-3	Modeling And Simulation Of The Diameter Effects Of The Hollow Fiber Membrane On CO ₂ Absorption From Natural Gas	Nayef Ghasem
PCM-4	A Design Method For The Integration Of Heat And Control In A Process Of Toluene Hydrodealkylation	Trung Kim Nguyen, Nguyen Khoi Phuc Nguyen, Thu Dinh Nguyen, Tuan-Anh Nguyen, and Fuchino Tetsuo
PCM-11	Filters Design For Dynamic Estimation In Chemical Process Control	Siti Fatmawati and Marthen Luther Doko
PCM-11-2	Application of Discrete-Time MPC in Chemical Process Control: Transfer Function Model Approach	Siti Fatmawati and Marthen Luther Doko
PCM-13	An MINLP Multi-Period Multi-Objective Optimization of Advanced Power Plant through Gasification of Municipal Solid Waste	A Syauqi and W W Purwanto



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PCM-14	Optimization and Analyzing of Subcritical Organic Rankine Cycle Using R1234ze(E) for Low and Medium Temperature Heat Source	O Rowshanaie, M Z M Tohir, F Mustapha, M E Ya'acob, and H Rowshanaie
PCM-15	Probabilistic Assessment Of Off-The-Shelf Fire Sprinkler Head Activation Time Through Laboratory Experiments	M A S Tajudin, M Z M Tohir, and M S M Said
PCM-17	Numerical Simulation of the Drying Kinetics of Sweet Potato to Prevent the Growth of the Fungi Rhizopus oryzae	F I V Obregon, M B C Silvano, J G Vicencio, and L D B Pestaño
PCM-19	Modeling And Optimization Of Pilot-Scale Subcritical Water Extraction On Zingiber Zerumbet By Central Composite Design	Siti Nur Khairunisa Mohd Amir, Mariam Firdhaus Mad Nordin, Kamyar Shameli, Izzati Mohamad Abdul Wahab, and Mariani Abdul Hamid
PCM-20	Optimization Of Fe(III) Ion Adsorption Using Aceh Activated Zeolite In Fixed Bed Column Using Response Surface Methodology	F. Redha, E. Munawar, and D. Darmadi
PCM-21	Parametric And Optimization Studies For Biochar Production From Municipal Solid Wastes (MSW) Via Pyrolysis	Katrina Joy T. Castillo, Monet Concepcion Maguon-Debras, Veronica P. Migo, and Catalino G. Alfafara
PCM-22	Parametric And Optimization Studies On The Production Of Nanoscale Biochar-NPK Fertilizer Using Sugarcane Bagasse-Derived Biochar As Carrier	Paulo C. Chiam, Monet Concepcion-Maguon-Debras, Veronica P. Migo, and Catalino G. Alfafara
PCM-23	Model Predictive Control Of Vinyl Chloride Monomer Process By Aspen Plus Dynamics And MATLAB/Simulink Co-Simulation Approach	J Chinpravit and C Panjapornpon
PCM-24	Dynamic Multi-Objective Optimization of Autocatalytic Esterification in Semi Batch by Using Control Vector Parameterization (CVP) and Non-Dominated Sorting Genetic Algorithm (NSGA-II)	F S Rohman and N Aziz
PCM-25	Rate-Based Simulation Study Of Boric Acid Promoted Potassium Carbonate Capture System	Foster K Ayittey, Agus Saptoro, Perumal Kumar, and Mee K Wong
PCM-26	Fouling Detection in Heat Exchangers using Extended Kalman Filter	S. Muenthong, S.Chattakarn, and V. Lersbamrungsuk
PCM-27	Stabilization of Quadruple-Tank Process with Time Delay via Tracking-Error Control in Relaxing Port-Hamiltonian Structure	Thanh Sang, Nguyen, Chee Keong, Tan, Ngoc Ha, Hoang, and Mohd Azlan, Hussain
PCM-28	Input/Output Linearizing Controller With Taylor Series Expansion For A Non-Minimum Phase Process By Hardware-In-The-Loop Approach	C Panjapornpon, I Kajornrungsilp, and C Rochpuang
PCM-29	A Mixed Integer Nonlinear Programming Approach For Integrated Bio-Refinery And Petroleum Refinery Topology Optimization	Ahmed Mahmoud and Jaka Sunarso
PCM-30	Multi-Objective Optimization for Combined Heat Power Operations considering Flexibility, Costs and Environmental Emissions	Lok Wei Jen, Ng Lik Yin, and Viknesh Andiappan



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PCM-31	Optimization of Agitation and Kinetic Studies on Proanthocyanidin Compound Extraction from Red Sorghum Grains in Agitated Vessel	D Y Susanti, W B Sediawan, M Fahrurrozi, and M Hidayat
PCM-32	Optimal Control of Carbon Dioxide Exchange Process in a Membrane Oxygenator Using Particle Swarm Optimization Approach	Hany Hafiza Manap, Ahmad Khairi Abdul Wahab, and Fathiah Mohamed Zuki
PCM-33	Electrospinning of PLA with DMF: Effect of Polymer Concentration On The Bead Diameter Of The Electrospun Fibre	Ainaa Amirah Md Zubir, M P Khairunnisa, Nur Atiqah Surib, J NorRu-waida, Abd Halim bin Md Ali, and M Rashid
PCM-34	Comparison Study of Different Interval Numbers on Low-Density Polyethylene Process Optimization	A Azmi, S A Sata, F S Rohman, and N Aziz
PCM-35	Optimization Of Methanol Production Via CO ₂ Hydrogenation: Comparison Of Sampling Techniques For Process Modeling	P Borisut and A Nuchitprasittichai
PCM-36	Dynamic Modeling: The Influence Of The Improved Solid Elutriation Correlation On The Two-Phase Mathematical Model Of Polyolefin Polymerization In Gas-Phase Fluidized Bed Reactor	M F Atan and M A Hussain
PCM-37	Hybrid Fuzzy-Disturbance Observer For Estimating Disturbance In Styrene Polymerization Process	A. M. Shamsul Bahrin and J. Mohd Ali
PCM-38	Implementation of Model Predictive Control in Tracking Dynamic Optimal Profiles of Semi Batch Autocatalytic Esterification Reactor	F S Rohman, D Muhammad, and N Aziz
PCM-39	Electrospray Flow Rate Influenced The Size Of Functionalized Soot Nanoparticles	Nur Atiqah Surib and M P Khairunnisa
PCM-40	Computational Fluid Dynamics Simulation of Fluidized Bed Dryer for Sago Pith Waste Drying Process	Abdul Mu'im Abdul Nasir, Masli Irwan Rosli, Mohd Sobri Takriff, Nur Tantiyani Ali Othman, and Vinoharan Ravichandar
PCM-42	Intermolecular Interaction of Tween 80, Water and Butanol in Micelles Formation via Molecular Dynamics Simulation	Junaidi Zakaria, Syamsul Rizal Abd Shukor, and Khairunisak Abd Razak
PCM-43	Aiding Alarm Rationalization By Automatic Identification Of Various Sequential Patterns In Large Volume Of Alarm And Event Log Data	Kaushik Ghosh and Gokula Krishnan Sivaprakasam
PCM-44	Exploring The Implementation Barriers Of Eco-Toilet System In The Philippines Using Decision-Making Trial And Evaluation Laboratory (DEMATEL) Approach	J J J Ignacio, C F Malolos, N I Mendoza, J Lantin, A H Orbecido, and M A B Promentilla
PCM-45	Synthesis of Bio-Hydrogen Network from Landfill Gas	Sadaf Hemmati, Chee Hoong Lee, Darren Yu Lun Chong, M. Mostafa Elneghihi, Dominic C. Y. Foo, and Bing Shen How