

CURRICULUM VITAE

**DR. ROZITA BINTI OMAR
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JABATAN KEJURUTERAAN KIMIA DAN ALAM SEKITAR
FAKULTI KEJURUTERAAN
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1. **Full Name:** ROZITA BINTI OMAR
2. **Title:** Associate Prof. Dr.
3. **Date & Place of Birth:** 16^h Nov. 1975; Wakaf Bahru, Kelantan
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6. **Email:** rozitaom@upm.edu.my
7. **Field:** Chemical Engineering
8. **Research interest:** Wastewater Treatment & Utilization, Microwave Applied Technology
H-index: 22 (Scopus); Citations: 2045 (Scopus)

9. Education and Academic Qualifications

Name of Institution	Qualification Obtained	Area of Specialisation	Year
Universiti Putra Malaysia	PhD	Chemical Engineering	2010
Universiti Putra Malaysia	MSc	Bioprocess and Fermentation Technology	2003
Colorado School of Mines	BEng.	Chemical Engineering	1998

10. Professional Membership

Institution/Affiliation/Registration	Status
Board of Engineers Malaysia (BEM)	Graduate Member
Malaysian Society for Engineering & Technology (MySET)	Member

11. Employment/Working Experience

Post Held	Employer	Duration
Lecturer Lecturer/Senior Lecturer/Associate	Dept. of Chemical & Environmental Engineering, Universiti Putra Malaysia	Oct. 2003 – To date
Postdoctoral Fellow	Dept. of Chemical Engineering, University of Nottingham, UK	Dec. 2011 – Nov 2012
Tutor	Dept. of Chemical and Environmental Engineering, Universiti Putra Malaysia	Jan. 1999 – Sep. 2003

12. Research Grants and Activities

i. Research grants On-going (As Head of Project)

Project Title	Position Held	Date/Duration	Source of Fund
Ammonia Recovery from High Lipid Wastewater as A Source of Organic Fertilizer	Head of Project	Sep 2022- Aug 2024	IPS –UPM (RM20,000)

ii. Research grants On-going (Member of Project)

Project Title	Head of Project	Date/Duration	Source of Fund
The interaction mechanism between a green synthesis of Hydroxyapatite nanoparticles and Thermoanaerobacterium-rich species for granule formation in biohydrogen production.	Dr. Nur Syakina Jamali	Oct 2023 – Sep 2025	FRGS (RM129,000)
Intervensi Permasalahan Bantut menerusi Pemindahan Ilmu Pemakanan Seimbang dalam kalangan Ibu dan Kanak-kanak di Presint 5, Putrajaya menggunakan Konsep Pinggan Sihat Malaysia	Dr. Muhammad Heikal bin Ismail	Jan 2022 – Jan 2023	Kementerian Kesihatan Malaysia (RM9,000)

iii. Research Grants Completed (As Head of Project)

Project Title	Status	Source of Fund
Modified Chitosan as A Smart Biomaterial Produced from Crab Shell Waste via Combined Microwave-assisted and Subcritical Liquid (MwSL) Technique	Completed 2022	University Consortium Seed Fund (SEARCA) (USD5,000)
Performance evaluation of anaerobic bioreactor with submerged dynamic membrane configuration for treating food wastewater	Completed 2020	Putra Grant – UPM (RM50,000)
Treatment of High Industrial Wastewater via 2 staged Anaerobic Digestion Low Cost Membrane Bioreactor	Completed 2019	IPS-UPM (RM20,000)
Recovery of Protein from Fish Waste via Enzymatic Hydrolysis couples with Microwave Pretreatment	Completed 2018	IPS-UPM (RM20,000)
Development of Green Process Via Microwave-assisted Pretreatment using RSM to enhance Enzymatic Saccharification of lignocellulosic biomass for the production of sugar	Completed 2017	IPS-UPM (RM15,000)
Evaluation and modeling of subcritical water extraction (SWE) of bioactive compounds from microalgae	Completed 2018	FRGS- MOHE (RM118,000)

polysaccharides		
Microwave Assisted Acid Extraction and Recovery of metals from E-waste	Completed 2013	RUGS, UPM (RM80,000)
Simultaneous Drying, Pyrolysis and Gasification of Sludge using Microwave for Syngas Production	Completed 2010	RUGS, UPM (RM168,400)
Numerical Modeling and simulation on temperature distribution of empty fruit bunch microwave pyrolysis	Completed 2008	FRGS, MOHE (80,000)
Renewable Energy Production from Agro- industry Biomass using Microwave Technology	Completed 2008	EScienceFund, MOSTI (RM124,794)

Total: RM 716,194.00

iv. Research Grant Completed (Member of Project)

Project Title	Head of Project	Year	Source of Fund
Feasibility study on application of forward osmosis (FO) membrane for concentrating tropical juice	Prof. Dr. Siti Mazlina	Completed 2021	Matching Grant Putra (RM50,000)
Penghuraian Anaerobik	Dr. Muhammad Heikal Ismail	Completed 2020	Geran Kecil Alam Sekitar, Negeri Selangor (RM10,000)
Feasibility study of application of Ionic Liquids (ILs) in bio-product development from microalgae and lignocellulosic materials	Prof Ir. Dr Wan Azlina Wan Abdul Karim	Completed 2019	Collaboration Grant (UPM -UTP) (RM50,000)
Kinetics and mechanism of subcritical hydrolysis of waste products (leftovers) from bakery industry for oligosaccharides formation	Prof. Dr. Siti Mazlina	Completed 2019	FRGS – MOHE/MOE (RM 101,442)
Evaluation On The Production Of Sugars (Oligosaccharides) From Bakery Wastes Using Subcritical Water Treatment	Prof. Dr. Siti Mazlina	Completed 2020	IPS –UPM (RM25,000)
Dewatering of <i>Nannochloropsis</i> sp. For High Lipids and Biomass Production	Prof. Dr. Azni Idris	Completed 2019	UPM-IPB Grant (RM50,000)
Evaluation on extraction of omega -3 FA from <i>Nannochloropsis</i> sp. using subcritical water technique	Prof. Dr. Siti Mazlina	Completed 2019	IPB – UPM Grants (RM100,000)
Pressurized water extraction (PWE) for extracting polysaccharide from freshwater microalgae	Prof. Dr. Siti Mazlina	Completed 2017	UPM-IPS (RM 20,000)
Waste reduction of fat, oil and grease from Medan Selera, Pasar Besar Melaka	P.M. Dr. Salmiaton Ali	Completed 2017	KTP-MOE (RM296,225)
Fabrication of 10 kW integrated mobile gasifier for sustainable power and biofuels production	P.M Dr Wan Azlina Wan Abdul Karim	Completed 2016	PRGS, MOHE (RM165,000)
Characterization of soluble microbial products (SMP) in membrane bioreactor (MBR) and its effect on membrane fouling potential.	Prof. Azni Idris	Completed 2016	FRGS, MOHE (RM81,000)
Development of a Novel and Sustainable Microwave Pyrolysis Process for the Production of Potential Fuel Products from Waste Oil	Prof. Dr. Lam Shu Shiung (Universiti Malaysia Terengganu)	Completed 2016	eScienceFund, MOSTI (RM356,300)

Evaluation of high hydrostatic pressure (HHP) extraction of bioactive compounds from microalgae	Prof. Dr. Siti Mazlina	Completed 2015	FRGS, MOHE (RM92,000)
Elucidation of the catalytic effects and Heating Characteristics of Particulate carbon as a Reaction bed in Microwave pyrolysis of waste oil	Prof. Dr. Lam Shu Shiung (Universiti Malaysia Terengganu)	Completed 2015	FRGS, MOHE (RM138,990)
Ultra-sonication effects on ultra-filtration membrane cleaning and fouling mitigation	Prof. Dr. Azni Idris	Completed 2008	RUGS UPM (RM15,000)
Gasification of agro-waste to produce biofuel	P.M Dr Wan Azlina Wan Abdul Karim	Completed 2008	eScienceFund, MOSTI (RM105,796)
Formulation of Natural Synthetic Lubricant For Hydraulic Fluids	Prof. Dr. Robiah Yunus	Completed 2006	IRPA, MOSTI (RM112,000)

Total: RM 1,485,00.00

i. Consultation Project, Research Contract and Other Funding

Title	Client / Collaborator	Year
JICA Project for AunSEED, 14 th Regional Conference on Chemical Engineering (Head Scretariat)	AUNSeed-NET	2020-2021
MoA between UPM and SEGi University Sdn. Bhd. Project title: Feasibility Study on Application of Forward Osmosis (FO) Membrane for Concentrating Tropical Juice (Member of Project for UPM)	SEGi University Sdn. Bhd.	2019 - 2021
MoA between UPM and UTP. Project title : Feasibility study of application of Ionic Liquids (ILs) in bio-product development from microalgae and lignocellulosic materials (Member of Project for UPM)	Universiti Teknologi Petronas	2017 - 2019
Technical Advisor: Micronutrient for Water & Wastewater Treatment	Rhino Alliance Sdn. Bhd.	2018-2019
UC Faculty Travel Grant: Department of Chemical Engineering, Universitas Gadjah Mada, Yogyakarta, Indonesia Visiting Lecturer, Seminar and Speaker at Summer School	Sponsorship from University Consortium, SEARCA	2019
Workshop on Anaerobic Digestion & Biogas Production	TNB Research Sdn. Bhd	2018
Rubber-scrap Refuse Derive Fuel (Member of Project)	Malaysian Rubber Board	2015
SPBio Fuel Saver Testing (Member of Project)	Steam-Pro Holdings Sdn. Bhd.	2010
Carbonization of EFB from Oil Palm (Member of Project)	Nasmech Technology Sdn. Bhd.	2009
Production of Biogas from Cattle Manure (Member of Project)	National Feedlot Cooperation	2008
Gas Treatment and Storage of Landfill Gas	UNITEN	2007

2. Publications

(i) PhD Thesis

Title: Evaluation of Microwave Pyrolysis of Oil Palm Empty Fruit Bunchs (PhD – 2010)

(ii) Journal (Scopus/JCR) – First, Corresponding, and Senior Author

No	Titles and Journal
1.	Syed Sabeer Ali, S.N., Omar, R. , Che Man, H., Md Idris, A.I., Tajuddin, H.A. (2023). Two-Stage Anaerobic Digestion using Protein-Rich Wastewater inoculated with Anaerobic Sludge. <i>Desalination and Water Treatment</i> , 302: 82-90. 10.5004/dwt.2023.29783 (JCR-Q4)
2.	Rozita Omar, Mahat, S.B., Muhamad Saufi, M.K., Aida Isma, M.I. (2023). Ammonia conversion in an aquaponics system using activated carbon coated and non-coated bioball in the biological treatment tank. <i>Materials Today: Proceedings</i> . April 2023. 10.1016/j.matpr.2023.03.678 (Scopus)
3.	Daniel Timotius, Kusumastuti, Y., Rozita Omar, Razif Harun, Siti Mazlina Mustapa Kamal, Siti Nurul Aisyiyah, J., Petrus, H.T.B.M. (2022). The study of methylene blue loading into chitosan-graft-maleic sponges. <i>International Journal of Technology</i> 13(8): 1976. 10.14716/ijtech.v13i8.6133. (Scopus)
4.	Segaran, R., Omar, R., Kusumastuti, Y., Harun, R., Mustafa Kamal, S.M. (2022). Combined microwave-assisted subcritical liquid extraction of chitosan from crab shell waste. <i>Progress on Chemistry and Application of Chitin and its Derivatives</i> . XXVII (2002): 204-216. 10.15259/PCACD.27.016 (Q4 ECSI).
5.	Nabilah Aliyah A.N., Omar, R., Nik Nor Lyana NI. (2022). Emergency preparedness and response in palm oil mill and investigation of the employees' emergency preparedness knowledge and attitude. <i>Process Safety Progress</i> 41(3): 1-9. DOI: 10.1002/prs.12363 (Q4)
6.	Syed Sabeer Ali, S.N., Omar, R., Che Man, H., Md Idris, A.I., Tajuddin, H.A. (2022). Foaming tendency in anaerobic digestion of wastewater inoculated with anaerobic sludge and cow manure: Effect of protein concentration. <i>IOP Conference Series: Material Science and Engineering</i> . 1257: 012043. DOI: 10.1088/1757-899X/1257/1/012043 (Scopus)
7.	Mahat. S.B., Omar. R., Che Man C. H., Mohd Idris A.I., Mustapa Kamal S.M., Idris. A. C. Shreeshivadasan C., Abdullah, L.C. (2021). Dynamic anaerobic membrane bioreactor (DAnMBR) with phase separation for food processing wastewater treatment at mesophilic temperature: Characterization of cake layer. <i>Journal of Environmental Chemical Engineering</i> , 9, 105718. (Q1)
8.	Mahat. S.B., Omar. R., Che Man C. H., Mohd Idris A.I., Mustapa Kamal S.M., Idris. A. C. Shreeshivadasan C., Jamali N.S., Abdullah, L.C. (2021). Performance of dynamic anaerobic membrane bioreactor (DAnMBR) with phase separation in treating high strength food wastewater. <i>Journal of Environmental Chemical Engineering</i> , 9, 105245. (Q1)
9.	Nurafifah Fuad, Rozita Omar, Suryani Kamarudin, Razif Harun, A. Idris, W.A.K.G. Wan Azlina (2021). Harvesting Marine Microalgae <i>Nannochloropsis</i> sp. using Dissolved Air Flootation (DAF) Technique. <i>Sains Malaysiana</i> 50(1): 73-83. (Q4)
10.	Saleem Ethaib, Rozita Omar, Mustapa Kamal Siti Mazlina, Awang Biak Dayang Radiah, and Zubaidi Salah (2020). Microwave-assisted pyrolysis of biomass waste: A mini review. <i>Processes</i> , 8(9): 1190. 10.3390/PR8091190 (Q2)
11.	Saleem Ethaib, Rozita Omar, Mustapa Kamal Siti Mazlina, Awang Biak Dayang Radiah (2020). Toward Sustainable Processes of Pretreatment Technologies of Lignocellulosic Biomass for Enzymatic Production of Biofuels and Chemicals: A Review. <i>BioResources</i> , 15(4): 10063-10088. 10.15376/biores.15.4.ethaib. (CIJ)
12.	Saleem Ethaib, Rozita Omar, Mustapa Kamal Siti Mazlina and Awang Biak Dayang Radiah (2020). Comparison of sodium hydroxide and sodium bicarbonate pretreatment methods for the characteristic and enzymatic hydrolysis of sago palm bark. <i>Energy Sources, Part A: Recovery, Utilization, and Environmental</i>

	Effects. (Published online April 2020). https://doi.org/10.1080/15567036.2020.1753857
13.	Mahat. S.B., Omar. R., Che Man C. H., Mohd Idris A.I., Mustapa Kamal S.M., Idris. A. (2020). Influence of substrate to inoculum ratio (S/I) on the treatment performance of food processing wastewater containing high and grease (O&G) in batch mode. <i>Desalination and Water Treatment</i> , 203: 267-278. DOI: 10.5004/dwt.2020.26231 (Q4)
14.	Mahat. S.B., Omar. R., Che Man C. H., Mohd Idris A.I., Mustapa Kamal S.M., Idris. A. (2020). Effect of Pore Size of Monofilament Woven Filter Cloth as Supporting Material for Dynamic Membrane Filter Performance using Aerobic Membrane Bioreactor Technology. <i>Asia-Pacific Journal of Chemical Engineering</i> . 15: e2453. https://doi.org/10.1002/apj.2453 . (Q4)
15.	Saleem Ethaib, Rozita Omar, Mustapa Kamal Siti Mazlina and Awang Biak Dayang Radiah (2020). Evaluation Solvent Level Effect on Sugar Yield during Microwave-assisted Pretreatment. <i>IOP Conference Series: Material Science and Engineering</i> , 12034. 10.1088/1757-899X/871/1/012034
16.	Nour Zghaibi, Rozita Omar, Siti Mazlina Mustapa Kamal, Dayang Radiah Awang Biak and Razif Harun (2020). Kinetics Study of Microwave-assisted Brine Extraction of Lipid from Microalgae <i>Nannochloropsis</i> sp. <i>Molecules</i> , 25(4): 784.
17.	Nour Zghaibi, Rozita Omar, Siti Mazlina Mustapa Kamal, Dayang Radiah Awang Biak and Razif Harun (2019). Microwave-assisted brine extraction for enchancement of the quantity and quality of lipid production from microalgae <i>Nannochloropsis</i> sp. <i>Molecules</i> 24 (3581): 1-21.
18.	Rafeah Wahi, Effa Radika Bidin, Nawwar Muntaj Mohamed Asif, Nur Athirah Nor Hamizat, Zainab gaini, Rozita Omar and Jamliah Jamel (2019). Nutrient availability in sago bark and empty fruit bunch composts for the growth of water spinach and green mustard. <i>Environmental Science and Pollution Research</i> . 26(22): 22246-22253
19.	R. Nor Aisyah, R. Omar, MK Siti Mazlina, D R Awang Biak, and SS Lam. (2018). Microwave-assisted pretreatment and enzymatic hydrolysis of sardine processing waste. <i>Journal of Engineering Science and Technology</i> . Special Issue on WRICET2016, December (2018): 71-77. (Scopus)
20.	Nurafifah Fuad, Rozita Omar, Suryani Kamarudin, Razif Harun, A. Idris, W.A.K.G. Wan Azlina (2018). Mass harvesting of marine microalgae using different techniques. <i>Food Bioprod Process</i> . 112: 169-184. 10.1016/j.fbp.2018.10.006
21.	Siti Baizura Mahat, Rozita Omar, Azni Idris, Siti Mazlina Mustapa Kamal, Aida Isma Mohd Idris (2018). Dynamic membrane applications in anaerobic and aerobic digestion for industrial wastewater: A mini review. <i>Food Bioprod Process</i> . 112: 150-168. 10.1016/j.fbp.2018.09.008
22.	Nurafifah Fuad, Rozita Omar, Suryani Kamarudin, Razif Harun, A. Idris, W.A.K.G. Wan Azlina (2018). Effective use of tannin based natural biopolymer, AFlok-BP1 to harvest marine microalgae <i>Nannochloropsis</i> sp. <i>Journal of Environmental Chemical Engineering</i> 6 (2018): 4318–4328.
23.	Mokhtar, N.M., Ethaib, S., Omar, R. (2018). Effect of microwave adsorbers on the products of microwave pyrolysis of oily sludge. <i>Journal of Engineering Science and Technology</i> 13 (10): 3313-3330. (Scopus)
24.	Saleem Ethaib, Rozita Omar, Mustapa Kamal Siti Mazlina, Awang Biak Dayang Radiah, S. Syafie (2018). Development of a hybrid PSO–ANN model for estimating glucose and xylose yields for microwave-assisted pretreatment and the enzymatic hydrolysis of lignocellulosic biomass. <i>Neural Comput & Application</i> 30:1111–1121 (IF: 1.492, Q2)
25.	M A Rahimi, R Omar, S Ethaib, MK Siti Mazlina, D R Awang Biak, and R Nor Aisyah (2017). Microwave-assisted extraction of lipid from fish waste. <i>IOP Conf. Series: Materials Science and Engineering</i> 206: 012096.
26.	Mohammad, Salem, Omar, Rozita, Mustapa Kamal, S.M., Awang Biak, D.R., Syafie, M.Y. Harun (2017). Microwave-Assisted Pretreatment of Sago Palm Bark. <i>Journal of Wood Chemistry and Technology</i> . 37:26–42. (IF: 1.334, Q1).
27.	Ethaib, S., Omar, R., Mazlina, M., Radiah, A., Syafie, S. and Harun, M. Y., 2016, Effect of microwave-assisted acid or alkali pretreatment on sugar release from Dragon fruit foliage, <i>International Food Research</i>

	Journal, 23(Suppl): S149-S154 (JCR Impact Factor: Q4)
28.	Lam, S.S., Wan Mahari, W.A., Cheng, C.K., R. Omar , Chong, C.T., Chase, H.A. (2016). Recovery of diesel-like fuel from waste palm oil by pyrolysis using a microwave heated bed of activated carbon. <i>Energy</i> , 115: 791-799 (Q1)
29.	Lingeswara, S., Omar, R., Ghazi, T.I.M. (2016). Reliability analysis on a shell and tube heat exchanger. <i>IOP Conference Series: Earth and Environmental Science</i> 36(1): 1-11. 10.1088/1755-1315/36/1/012012
30.	Mohammad, Salem, Omar, Rozita , Mustapa Kamal, S.M., Awang Biak, D.R., Syafie (2016). Microwave-assisted Dilute Acid Pretreatment and Enzymatic Hydrolysis of Sago Palm Bark. <i>BioResources</i> , 11(3): 5687-5702. (IF:1.830, Q1)
31.	Mohammad, Salem, Omar, Rozita , Mustapa Kamal, S.M. & Awang Biak, D.R (2015). Microwave-assisted Pretreatment of Lignocellulosic Biomass: A Review. <i>Journal of Engineering Science and Technology</i> , 10(2): 97-109
32.	Rozita Omar and J.P. Robinson. Conventional and microwave-assisted pyrolysis of rapeseed oil for bio-fuel production. <i>Journal of Analytical and Applied Pyrolysis</i> . 105: 131–142. (IF:3.652, Q1)
33.	Hussain, S.A., Bano, S., Yeoh, H.S., Rozita, O. (2014). Simulation on temperature distribution of oil palm empty fruit bunches during the microwave pyrolysis process. <i>Asia-Pacific Journal of Chemical Engineering</i> 9(1): 39-49. 10.1002/apj.1744
34.	Nur Mustika Mokhtar, Rozita Omar , Azni Idris. Microwave Pyrolysis for Conversion of Materials to Energy: A Brief Review. <i>Energy Sources Part A Recovery, Utilization, and Environmental Effects</i> 34:2104–2122. (IF: 0.386)
35.	Rozita Omar , A. Idris, R. Yunus, K. Khalid and M.I. Aida Isma (2011). Characterization of Empty Fruit Bunch for Microwave-assisted Pyrolysis. <i>Fuel</i> 90:536-1544. (IF:3.611, Q1)
36.	Rozita Omar , M.A. Abdullah, M.A. Hasan, M. Rosfarizan and M. Marziah. Kinetics and Modelling of Cell Growth and Substrate Uptake in <i>Centella asiatica</i> Cell Culture. <i>Korean Journal of Biotechnology and Bioprocess Engineering</i> , 11(3): 223-229
37.	Rozita Omar , M.A. Abdullah, M.A. Hasan and M. Marziah. Optimization and Elucidation of Interactions between Ammonium, Nitrate and Phosphate in <i>Centella asiatica</i> Cell Culture using Response Surface Methodology. <i>Korean Journal of Biotechnology and Bioprocess Engineering</i> , 10 (3): 192-197.

(iii) Journal (Scopus/JCR) – Co-Author

No.	Titles and Journal
1.	Shiva Rezei Motlagh, Razif Harun, Rozita Omar, Amal Elgharbawy, Ramin Khezri (2023). Ionic liquid-based microwave-assisted extraction of protein from <i>Nannochloropsis</i> sp. biomass. <i>Biomass Conversion and Biorefinery</i> , 13(9): 8327-8338. (JCR – Q2)
2.	Ummi Kalsum Mohd Nadzim, Robiah Yunus, Rozita Omar, Mohd Halim Shah Ismail (2023). Simulation of energy consumption in sterilisation process using ASPEN PLUS and Response Surface Methodology. <i>Journal of Oil Palm Research</i> , 35(2): 281-295 (JCR-Q4)
3.	Izzah Farhana Ab Aziz, Hasfalina Che Man, Ali Dermici, Rozita Omar, Muhammad Hazwan Hamzah, Nur Syakina Jamali, Kamil Kayode Katibi, Abdulsalam Mohammed (2023). Biogas production from lignocellulosic biomass, opportunities and challenges: A review on sustainable energy from Malaysian perspectives. <i>Journal of Oil Palm Research</i> , Accepted (JCR-Q4)
4.	Izzah Farhana Ab Aziz, Hasfalina Che Man, Rozita Omar, Muhammad Hazwan Hamzah, Nur Syakina Jamali (2023). Novel Pre-Treatment for Lignocellulosic Biomass Delignification Using Alkaline-Assisted Ohmic Heating. <i>Pertanika Journal of Science and Technology</i> , 31(6): 3039-3057. (Scopus)

5.	Nurfatimah Mohd Thani, Siti Mazlina Mustapa Kamal, Alifdino Sulaiman, Farah Saleena Taip, Rozita Omar (2023). Subcritical water hydrolysis for sugar recovery from bakery leftovers: kinetic and thermodynamic analysis. <i>Biomass Conversion and Biorefinery</i> , 13(2): 1927-1935. (JCR Q2)
6.	Nurfatimah Mohd Thani, Siti Mazlina Mustapa Kamal, Alifdino Sulaiman, Farah Saleena Taip, Rozita Omar (2023). Subcritical water hydrolysis of industrial cake leftovers for sugar production. <i>Food Science and Technology</i> , 17(3): 2204-2212. (SCIE Q3)
7.	Aida Isma, M.I., Siti Mazlina, M.K., Alifdino, S., Rozita Omar, Munira Mohammad (2022). Characterization of cellulose acetate membrane at different thicknesses for Sucrose Concentration by Forward Osmosis. <i>ASEAN Journal of Chemical Engineering</i> 22(2): 337. 10.22146/ajche.77350 (Scopus)
8.	Siti Mazlina, M.K., Nurfatimah, M.T., Farah Saleena, T., Alifdino, S., Rozita Omar (2022). Subcritical water hydrolysis of industrial cake leftovers for sugar production. <i>Journal of Food Measurement and Characterization</i> , December 2022. 10.1007/s11694-022-01756-w.
9.	Nurfatimah Mohd Thani, Mustapa Kamal S.M., Farah Saleena Taip, Alifdino Sulaiman, Omar R., Mohd Hafizz Wondi (2022). Risk Assessment of Subcritical Water Hydrolysis (SWH) System for Sugar Recovery using Failure Modes and Effects Analysis (FMEA) Methods. <i>Sains Malaysiana</i> , 51(10): 333-3345. DOI: 10.17576/jsm-2022-5110-18 (Q4)
10.	Siti Maisurah Zakaria, Mustapa Kamal S.M., Harun R., Omar R., Siajam S.I. (2022). Extraction of phenolic compounds from <i>Chlorella</i> sp. microalgae using pressurized hot water: kinetics study. <i>Biomass Conversion and Biorefinery</i> , 12(1): 1-9. DOI: 10.1007/s13399-020-01027-y
11.	Nur Aliah Fatin Mohd Nizam Ong, Mohd Tohir, M.Z., Mahmood Mutlak, M., Sadiq, M.A., Omar, R., Md Said, M.S. (2022). BowTie analysis of rooftop grid-connected photovoltaic systems. <i>Process Safety Progress</i> , 41(3). DOI: 10.1002/prs.12338 (Q4)
12.	Khaled Shahot, Azni Idris, Rozita Omar (2021). Pilot-scale comparison of non-coated and activated carbon-coated Cosmoball® for removal of organic matter and nutrients from municipal wastewater. <i>Desalination and Water Treatment</i> 250: 155-168. DOI: 10.5004/dwt.2021.27408 (Q4)
13.	Nurfatimah Mohd Thani, Siti Mazlina Mustapa Kamal, Alifdalino Sulaiman, Farah Saleena Taip, Rozita Omar (2021). Sugar recovery from bakery leftovers through enzymatic hydrolysis: Effect of process conditions and product characterization. <i>Sains Malaysiana</i> 50(10): 2977-2991. DOI: 10.17576/jsm-2021-5010-12
14.	Nurfatimah Mohd Thani, Siti Mazlina Mustapa Kamal, Alifdalino Sulaiman, Farah Saleena Taip, Rozita Omar (2021). Subcritical water hydrolysis for sugar recovery from bakery leftovers: kinetic and thermodynamic analysis. <i>Biomass Conversion and Biorefinery</i> , March 2021. Doi: 10.1007/s13399-021-01416-x
15.	Dina Kania, Robiah Yunus, Rozita Omar, Suraya Abdul Rashid, Badrul Mohamed Jan (2021). Rheological investigation of synthetic-based drilling fluid containing non-ionic surfactant pentaerythritol ester using full factorial design. <i>Colloids and Surfaces A Physicochemical and Engineering Aspects</i> . 625(1-3): 126700. Doi: 10.1016/j.colsifa.2021.126700
16.	Dina Kania, Robiah Yunus, Rozita Omar, Suraya Abdul Rashid, Badrul Mohamed Jan, Akma Aulia (2021). Lubricity performance of non-ionic surfactants in high-solid drilling fluids: A perspective from quantum chemical calculations and filtration properties. <i>Journal of Petroleum Science and Engineering</i> , 207(4): 109162. Doi: 10.1016/j.petrol.2021.109162
17.	Shiva Rezaei Motlagh, Razif Harun, Dayang Radiah, Siti Aslina Hussain, Rozita Omar, Ramin Khezri (2021). Ionic liquid-based microwave-assisted extraction of lipid and eicosapentaenoic acid from <i>Nannochloropsis oceanica</i> biomass: experimental optimization approach. <i>Journal of Applied Phycology</i> , 33(4). Doi: 10.1007/s10811-021-02437-9
18.	Shiva Rezaei Motlagh, Amal Ahmed Elgharbawy, Ramin Khezri, Razif Harun, Rozita Omar, (2021). Ionic liquid-based microwave-assisted extraction of protein from <i>Nannochloropsis</i> sp biomass. <i>Biomass Conversion and Biorefinery</i> : 10.1007/s13399-021-01778-2

19.	Nurfatimah Mohd Thani, Siti Mazlina Mustapa Kamal, Alifdalino Sulaiman, Farah Saleena Taip, Rozita Omar & Shamsul Izhar (2020), Hydrolysis and characterization of sugar recovery from bakery waste under optimized subcritical water conditions. <i>Journal of Food Science and Technology</i> . Published online on 23rd. March 2020 (DOI: 10.1007/s13197-020-04345-1) (JCR Impact Factor: Q2)
20.	Motlagh, S.R., Harun, R., Awang Biak, D.R., Hussain, S.A., Omar, R., Elgharbawy, A.A. (2020). COSMO-RS Based Prediction for Alpha-Linolenic Acid (ALA) Extraction from Microalgae Biomass Using Room Temperature Ionic Liquids (RTILs). <i>Marine Drugs</i> , 18 (108): 1-22.
21.	NurAtiqah M.A., Abd Hamid, Hamidah, Yunus, R., Abbas, Z., Omar, R., Rashid, U., Azhari, M.S. (2020). Kinetic and thermodynamics of synthesis of palm oil-based trimethylolpropane trimer using microwave irradiation. <i>Journal of Saudi Chemical Society</i> . (in press). https://doi.org/10.1016/j.jscs.2020.05.006
22.	NurAtiqah M.A., Robiah Yunus, Abd Hamid, Hamidah, Alsultan Abdul Kareem Ghassan, Rozita Omar, Umer Rashid, Zulkifly Abbas (2020). An acceleration of microwave-assisted transesterification of palm oil-based methyl ester into trimethylolpropane ester. <i>Scientific reports</i> . 10(1): 1-17.
23.	NM Thani, SMM Kamal, FS Taip, A Sulaiman, R Omar (2019). Effect of sub-critical water hydrolysis on sugar recovery from bakery leftovers. <i>Food and Bioproducts Processing</i> 117: 105-112.
24.	N Mohd Thani, SM Mustapa Kamal, A Sulaiman, FS Taip, R Omar, S Izhar (2019). Sugar Recovery from Food Waste via Sub-critical Water Treatment. <i>Food Reviews International</i> , 1-17.
25.	N Mohd Thani, SM Mustapa Kamal, A Sulaiman, FS Taip, R Omar, S Izhar (2019). Effect of enzyme concentrations on total reducing sugar from leftover croissants and doughnuts via enzymatic hydrolysis. <i>Food Research</i> , 3(4): 313-316. Scopus Cited
26.	Dina Kania, R. Yunus. R. Omar, A.R. Suraya, M.J Badril, N, Arsanjani (2018). Non-ionic polyol esters as thinner and lubricity enhancer for synthetic-based drilling fluids. <i>Journal of Molecular Liquids</i> 266: 846-855.
27.	Dina Kania, R. Yunus. R. Omar, A.R. Suraya, M.J Badril, N, Arsanjani (2017). Performance evaluation of polyol esters from palm oil as a lubricant for bentonite suspension drilling fluid. <i>Tribology Online</i> 12(5): 247-250.
28.	Siti Maisurah Zakaria, Siti Mazlina Mustapa Kamal, Mohd Razif Harun, Rozita Omar and Shamsul Izhar Siajam (2017) Subcritical Water Technology for Extraction of Phenolic Compounds from <i>Chlorella</i> sp. Microalgae and Assessment on Its Antioxidant Activity. <i>Molecules</i> , 22: 1105
29.	S M Zakaria, S M Mustapa Kamal, M R Harun, R Omar, and S I Siajam (2017) Extraction of antioxidants from <i>Chlorella</i> sp. using subcritical water treatment. <i>IOP Conf. Series: Materials Science and Engineering</i> , 206:012035
30.	M. Nasir, T. I. Mohd. Ghazi, R. Omar & W.A.K.G. Wan Azlina (2017). Anaerobic batch digestion of cattle manure under various oscillatory flow mixing. <i>Pertanika J. Sci. & Technol.</i> , 25(1): 161-170
31.	Faten Hameed Kamil, S. Ali, Raja Mohamad Hafriz, R. Omar, Abdulkareem Ghassan Alsultsan (2017). Characterization and application of aluminum dross as catalyst in pyrolysis of waste cooking oil, <i>Bulletin of Chemical Reaction Engineering & Catalysis</i> , 12(1): 81-88.
32.	Khaled Shahot, Azni Idris, Zulkifli Rosli, Rozita Omar, Hamdan Yusoff, Suraya Abdul Rashid, Ahmed Ekhmaj, Rabaah Azis & and Ismail Abd Ghani (2016). Microstructure of Activated Carbon Particles Coated on High Density Polyethylene (HDPE) for Wastewater Treatment Application. <i>Advanced Materials Research</i> , 1134: 88-95.
33.	Dina Kania, RobiahYunus, Rozita Omar , Suraya Abdul Rashid, Badrul Mohamad Jan. A review of biolubricants in drilling fluids: Recent research, performance, and applications. <i>Journal of Petroleum Science and Engineering</i> . 135 (2015): 177–184. (IF:1.655, Q1)
34.	Idris, A.I.M., Salmiaton, A., Omar, R. (2015). Pyrolysis - Solvent extraction of chicken fats and skins for bio-oil production. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , Volume 37, Issue 23, 2 December 2015, Pages 2543-2549.(IF: 0.386)

35.	Khaled Shahot, Azni Idris, Rozita Omar and Hamdan M. Yusoff. (2014) Review on Biofilm Processes for Wastewater Treatment. <i>Life Science Journal</i> , 11(11): 1-13.
36.	I.M. Nasir, T. I. Mohd. Ghazi, R. Omar & A. Idris. (2014) Bioreactor Performance in the Anaerobic Digestion of Cattle Manure: A Review. <i>Energy Sources, Part A: Recovery, Utilization, and Environmental Effects</i> . 36:1476–1483. (IF: 0.386)
37.	I.M Nasir, T.I. Mohd Ghazi, R. Omar . (2012). Anaerobic Digestion Technology in Livestock Manure Treatment for Biogas Production: A Review. <i>Engineering in Life Sciences</i> 12: 258-269. (IF:2.119, Q3)
38.	Nasir, I.M., Ghazi, T.I.M., Omar, R. (2012). Production of biogas from solid organic wastes through anaerobic digestion: A review. <i>Applied Microbiology and Biotechnology</i> , 95(2): 321-329.
39.	MA Mohamad Salleh, Salmiaton Ali, Fakhru'l-Razi Ahmadun, R. Omar , Wan Azlina Wan Abdul Karim Ghani, Taufiq Yap Yun Hin. (2012). Catalytic Gasification of Empty Fruit Bunch for Enhanced Production of Hydrogen Rich Fuel Gas. <i>Pertanika Journal of Science & Technology</i> 20: 139-149. (Scopus Cited)
40.	Nor Halaliza Alias, Robiah Yunus, Azni Idris, Rozita Omar . (2009) Effects of additives on oxidation characteristics of Oil Palm-based trimethylolpropane ester in hydraulic applications. <i>European Journals of Lipid Science and Tech</i> . 111: 368-375. (Scopus Cited)
41.	M.K Siti Mazlina, A.G.L Abdullah, A.R. Nur 'Aliaa, Siti Aslina H and Rozita Omar . (2008) Comparison on Optimum Conditions of enzymatic treatment between two Malaysian Star Fruit Varieties for Juice Clarification using Response Surface Methodology. <i>PERTANIKAJ. Sci & Technology</i> 16(1): 31-39.
42.	Chuah TG, Wan Azlina WAKG, Yunus R, Rozita Omar . (2006) Biomass as the Renewable Energy Sources in Malaysia: An Overview. <i>International Journal of Green Energy</i> 3: 323-346. (IF:1.601, Q3)
43.	Robiah Yunus, A. Fakhru'l-Razi, T.L. Ooi, R. Omar and A. Idris. (2005) Synthesis of Palm Oil based Trimethylolpropane Esters with Improved Pour Points, <i>Industrial and Engineering Chemistry Research</i> , 44:8178-8183. (IF: 2.567)

(iv) Journal (Non -Citation) – First, Corresponding, Senior Author

No.	Titles and Journal
1.	Aida Isma Md. Idris, Putri Razreena Ab Razak, Rozita Omar , Azni Idris (2014). Effects of sludge retention time and hydraulic retention time on treatment performance of membrane bioreactor (MBR) and membrane fouling. <i>International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering</i> , 8(6): 488-492.
2.	Aida Isma Md. Idris, Putri Razreena Ab Razak, Rozita Omar , Azni Idris (2013). Performance of membrane bioreactor (MBR) in a high phosphate wastewater. <i>International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering</i> , 7(1): 54-58.
3.	Rozita Omar , M.A. Abdullah, M.A. Hasan and M. Marziah. (2004) Development of growth medium for <i>Centella asiatica</i> cell culture via response surface methodology. <i>Journal of American Applied Science</i> , 1 (3): 215-219.

(v) Journal (Non -Citation) – Co-Author

No.	Titles and Journal
1.	Dina Kania, Robiah Yunus, Rozita Omar , Suraya Abdul Rashid, Badrul Mohamed Jan, Akma Aulia (2021). Adsorption of non-ionic surfactants on organoclays in drilling fluid investigated by molecular descriptors and Monte Carlo random walk simulations. <i>Applied Surface Science</i> 538(17): 148154. Doi: 10.1016/j.apsusc.2020.148154

2.	Umami Kalsum Hasanah Mohd Nadzim, Robiah Yunus, Rozita Omar , Bo Yuan Lim (2020) Factors contributing to oil losses in crude palm oil production process in Malaysia: A review. International Journal of Biomass and Renewables 9(1): 10-24.
3.	K Shahot, A Idris, R Omar , H Che, F Suja (2019). Investigation of Activated Carbon Coating in the Adsorption Process of Methylene Blue from Aqueous Solution. Advanced Science, Engineering and Medicine 11 (9): 879-887.
4.	Aida Isma, A. Idris, R. Omar , Mohd Ali Hassan & Zakaria M.P. (2016). Characterization of Bio Fouling in Membrane Bioreactor. International Journal of Advances in Science Engineering and Technology. Special Issue February 2016.
5.	Aida Isma Mohamad Idris, Salmiaton Ali, Rozita Omar (2012). Vitrification of Petrochemical Sludges containing heavy metals. SEGi Reviews 5(1): 89-94.

(vi) Books

1. Robiah Yunus, **Rozita Omar**, Zurina Zainal Abidin, Dayang Radiah Awang Baik (2012). Oil Palm as Bioenergy Feedstock. In Palm Oil: Production, Processing, Characterization, and Uses (Eds.) Oi-Ming Lai, Chin-Ping Tan, and Casimir C. Akoh. (ISBN: 978-0-9818936-9-3)

3. Supervision of Students

i. MSc – Post-graduate Thesis by Research: Project Supervision/Co-supervision

No.	Student	Status
1.	Syarifah Nazura binti Syed Saber Ali (MSc in Chemical Engineering) - Supervisor - Title: Investigation on The Effect of Protein and Lipid to Foam and Scum in Anaerobic Digestion of Food Processing Wastewater	Graduated 2023
2.	Nida Afzal (MSc in Food Engineering) - Co-Supervisor - Title: Evaluation of Forward Osmosis Membrane Process for Passion Fruit Juice Concentration	On-going
3.	Hussein Saeed Rasheed (MSc in Chemical Engineering) - Co-supervisor - Title: Improvement in lubricating properties of engine oil by blending with palm oil, TMP ester and nanoparticles	Graduated 2023
4.	Nurafifah Mat Fuad (MSc in Chemical Engineering) - Co-supervisor - Title: Dewatering of marine microalgae <i>Nannochloropsis</i> sp. for high biomass production.	Graduated 2021
5.	Faten Hameed Kamil (MSc. Chemical Engineering) - Co-supervisor - Title: Modified solid industrial waste as potential catalyst in pyrolysis	Graduated 2020
6.	Nur Mustika Mokhtar - Supervisor - Title: Simultaneous Drying, Pyrolysis and Gasification of Sludge using Microwave for Syngas Production	Graduated 2021
7.	Ismail Muhammad Nasir (MSc. Environmental Engineering) - Co-supervisor - Title: Anaerobic digestion of cattle manure for biogas production	Graduated 2019
8.	Amir Syarifuddeen Mohd Adnan (MSc. In Biochemical Engineering)	Graduated

	<ul style="list-style-type: none"> - Co-supervisor - Title: Comparison between Glycolysis and microwave-assisted technique in depolymerization of pet waste 	2019
9.	<p>Wan Adibah binti Wan Mahari (Universiti Malaysia Terengganu)</p> <ul style="list-style-type: none"> - Co-supervisor - Title: Microwave-heated pyrolysis in recycling waste cooking oil 	Graduated
10.	<p>Nur Fatimah Zainuddin (Universiti Malaysia Terengganu)</p> <ul style="list-style-type: none"> - Co-supervisor - Title: Microwave heated pyrolysis in recycling waste lubricating oil 	Graduated

ii. PhD – Post-graduate Thesis by Research: Project Supervision/Co-supervision

No.	Student	Status
1.	<p>Zisha Shishita Zahan (PhD in Biochemical Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: Thermophilic Biohydrogen Production using Attached-biofilm of A Newly Isolated Strain from Palm Oil Mill Effluent 	On-going
2.	<p>Izzah Farhana Ab Aziz (PhD in Agricultural Waste Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: Delignification of Fibrous Material by Pre-treatment in Optimization of Biomethane Production from Anaerobic Digestion 	On-going
3.	<p>Nur Aliah Fatin Mohd Nizam Ong (PhD in Safety Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: Fire Safety of Rooftop Grid-connected Photovoltaic System 	Passed Viva 2023
4.	<p>Quin Anak Emparan (PhD in Chemical Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: A Sustainable Technology for Palm Oil Mill Effluent Treatment using Microalgae 	Graduated 2023
5.	<p>Siti Baizurah Mahat (PhD in Environmental Engineering)</p> <ul style="list-style-type: none"> - Supervisor - Title: Performance of Two-stage Dynamic Anaerobic Membrane Bioreactor for Treating High Strength Food Processing Wastewater 	Graduated 2021
6.	<p>Saleem Ethaib Mohammad (PhD in Environmental Engineering)</p> <ul style="list-style-type: none"> - Supervisor - Title: Microwave-assisted Pretreatment and Enzymatic Hydrolysis for Sugar Production from Sago Palm Bark 	Graduated 2017
7.	<p>Nour A.T. Zghaibi (PhD in Environmental Engineering)</p> <ul style="list-style-type: none"> - Supervisor - Title: Microwave-assisted Extraction of Lipid from <i>Nannochloropsis</i> sp. Microalgae using Brine Solution 	Graduated 2019
8.	<p>Nurfatimah bt Mohd Thani (PhD in Food Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: Sugar recovery from bakery leftovers via Subcritical Water Hydrolysis 	Graduated 2020
9.	<p>Nur Atiqah Mohamad Aziz (PhD in Chemical Engineering)</p> <ul style="list-style-type: none"> - Co-Supervisor - Title: Transesterification of Palm-based Methyl Ester and Trimethylpropane for Trimethylpropane Ester Production using Microwave-assisted Heating 	Graduated 2021

10.	Ummi Kalsum Hasanah Mohd Nadzim (PhD in Chemical Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Process Simulation, Exergy Analysis and Optimization of Palm Oil Milling Process using ASPEN Plus 	Graduated 2021
11.	Siti Maisurah Zakaria (PhD in Food Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Evaluation on Subcritical Water Extraction of Phenolic Compounds from <i>Chlorella</i> sp. Microalgae 	Graduated 2019
12.	Dina Kania (PhD in Chemical Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Polyol Esters as Thinner and Biolubricant Additives for Synthetic-based Drilling Fluid 	Graduated
13.	Khaled Muftah Shahot (PhD in Environmental Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Activated Carbon Coated Cosmoball for Wastewater Treatment 	Graduated
14.	Ismail Muhammad Nasir (PhD in Chemical Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Study of the Effect of Chemical Pre-treatment on the Anaerobic Digestion of Cattle Manure and Investigation of Kinetis 	Graduated
15.	Aida Isma Mohamad Idris (PhD in Environmental Engineering) <ul style="list-style-type: none"> - Co-Supervisor - Title: Removal of Biodegradable Organic Matter using Ultrafiltration Membrane for Wastewater Treatment 	Graduated