



CURRICULUM VITAE

ASSOC. PROF. DR. NORHAFIZAH ABDULLAH



Department of Chemical and Environmental Engineering. Faculty of Engineering. Universiti Putra Malaysia. 43400 UPM Serdang. Selangor.

Tel. : +6012 2480122
E-mail : nhafizah@upm.edu.my (primary email)
: abdullahnorhafizah@gmail.com (secondary email)
ORCID : <https://orcid.org/0000-0001-5130-5400>
Scopus : 14065829900, 55211356400, H-index (32)
Website : <http://profile.upm.edu.my/nhafizah/profail.html>

Research Philosophy

Use multidisciplinary approach for understanding advanced technologies in Biochemical and Environmental Engineering field

Research Field Keywords

- Probiotics, bioprocess engineering, chromatography, bioremediation, bio-based product formulation

Academic Qualification

| Qualification | Institution | Year | Area of Specialization |
|----------------------------|---------------------------|------|--|
| PhD (Chemical Engineering) | Cambridge University, UK | 2004 | Chemical Engineering (Downstream processing) |
| MSc (Bioreactor Systems) | UMIST, UK | 1996 | Bioreactor design, biotransformation |
| BSc Hons (Microbiology) | Manchester University, UK | 1994 | Microbiology |

Work Experience

- Universiti Putra Malaysia, Post: [Associate Professor](#) (2008 to Present), [Quality Manager & Head of MS/ISO 17025 Material Characterization Laboratory](#) (2008-2024); [Head of Department of Chemical and Environmental Engineering](#) (2024-2027)
- ENSIC, Nancy University, France: Visiting Professor, (2012-2013)
- Universiti Putra Malaysia, Post: Lecturer at Department of Chemical and Environmental Engineering, from 1998 to 2008.
- Assunta Hospital, Post: Medical Lab Technologist at Pathology Department, from 1997 to 1998
- Inchcape Testing Services S/B, Post: Industrial Microbiologist at the Department of Analytical and Survey Lab, from 1994 to 1995

Awards & Other Activities

Academic Awards

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|--------------|--|----------|----------|------|
| 1 Gold medal | Artificial Conduit for Coronary Heart Diseases | MTE Expo | National | 2011 |
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|---|--|---|---------------|------|
| 1 special award Double Gold) and 1 Gold medal | Production of Nanoparticles using Supercritical Antisolvent Technique | British Invention | International | 2008 |
| 1 Gold medal & 1 silver medal | Innovative Environmental Friendly Cyanide Free Cassava Flour Processing | EUREKA, Brussels, Belgium, 22-25 November 2007. | International | 2007 |
| 1 Gold medal | Isolation and Encapsulation of cassava linamarin biodegradable PLGA nanoparticles | Invention and New Product Exposition- INPEX, Monroeville Expomart, Pittsburgh,USA | International | 2006 |

Patent

- **PI20062475**, A Method to Prepare Linamarin Microparticles and a Formulation Derives Thereof
Country Filing: Malaysia
- **PCT/MY2008/000150**, Bacteria for the Degradation and Modification of Fats, Oils, and Grease
Country Filing: PCT
- **PI 20083984**, Supercritical Antisolvent (SAS) System for the Production of Nanoparticles
Country Filing: Malaysia
- **PI20071991**, Therapeutic agent for Treating Cancer
Country Filing: Malaysia

List of Publications (2016 - current only)

Journals

1. Leow, Y.S., **Abdullah, N.**, Biak, D.R.A., Rosli, R., Teh, H.F. (2023), Production of Biosurfactant Using Bacillus subtilis Natto Fermentation, *Pertanika Journal of Science and Technol.*, 31(2), pp. 709–728
2. Sarmast SH, M., George, S., Dayang Radiah, C.A.B., **Abdullah, N.**, Kamarudin, S. (2022), Synthesis of bioactive glass using cellulose nano fibre template, *Journal of the Mechanical Behavior of Biomedical Materials*, 130, 105174
3. Azizkhani, S., Hussain, S.A., **Abdullah, N.**, Ismail, M.H.S., Mohammad, A.W. (2021), Synthesis and application of functionalized Graphene oxide-silica with chitosan for removal of Cd (II) from aqueous solution, *Journal of Environmental Health Science and Engineering*, 19(1), pp. 491-502
4. Roslan, J., Kamal, S.M.M., Md. Yunos, K.F., **Abdullah, N.** (2021), Fractionation of tilapia by-product protein hydrolysate using multilayer configuration of ultrafiltration membrane, *Processes*, 9(3), pp. 1-15, 446
5. Makama, A.B., Salmiaton, A., Choong, T.S.Y., **Abdullah, N.**, Saion, E. (2020), Influence of parameters and radical scavengers on the visiblelight-induced degradation of ciprofloxacin in ZnO/SnS2 nanocomposite suspension: Identification of transformation products, *Chemosphere*, 253,126689.
6. Hameed, Y.T., Idris, A., Hussain, S.A., **Abdullah, N.**, Che Man, H. (2020). Effect of pre-treatment with a tannin-based coagulant and flocculant on a biofilm bacterial community and the nitrification process in a municipal wastewater biofilm treatment unit, *J. Environmental Chemical Engineering*, 8(2),103679
7. Nami, Y., Lornezhad, G., Kiani, A., **Abdullah, N.**, Haghshenas, B. (2020), Alginate-Persian Gum-Prebiotics microencapsulation impacts on the survival rate of Lactococcus lactis ABRINW-N19 in orange juice, *LWT*, 124,109190

8. Ahmad, N.S., **Abdullah, N.**, Yasin, F.M. (2020) Toxicity assessment of reduced graphene oxide and titanium dioxide nanomaterials on gram-positive and gram-negative bacteria under normal laboratory lighting condition, *Toxicology Report*, 7, 693-699.
9. Heba, O.H., Ali, S., **Abdullah, N.** (2019). Chelate coupling with pineapple leaves as a modified bio-sorbent for lead ions (II) removal, *International Journal of Environmental Science and Technology*, 16(11), 7293-7304
10. Hassani, A., Hussain, S.A., **Abdullah, N.**, Kamarudin, S., Rosli, R. (2019). Antioxidant Potential and Angiotensin-Converting Enzyme (ACE) Inhibitory Activity of Orotic Acid-Loaded Gum Arabic Nanoparticles, *AAPS PharmSciTech.*, 20(2),53
11. Ahmad, N.S., **Abdullah, N.**, Yasin, F.M. (2019) Antifungal activity of titanium dioxide nanoparticles against *Candida albicans*, *BioResources*, 14(4), 8866- 8878.
12. Roslan, J., Kamal, S.M.M., Yunos, K.F.M., **Abdullah, N.** (2019) Assessment on flux reduction and protein rejection behavior in fractionating *Tilapia* by- product protein hydrolysate by ultrafiltration membrane, *Pertanika Journal of Science and Technology*, 27(S1), 67-80.
13. Hassani, A. Hussein, S. A, **Abdullah N**, Kamaruddin, S. and Rosli, R. (2019) Characterization of Magnesium Orotate-Loaded Chitosan Polymer Nanoparticles for a Drug Delivery System, *Chem. Eng and Tech*, 42(9), 1816- 1824.
14. Roslan, J., Mustapa Kamal, S.M., Md. Yunos, K.F., **Abdullah, N.** (2018), Evaluation on performance of dead-end ultrafiltration membrane in fractionating *tilapia* by-product protein hydrolysate, *Separation and Purification Technology*, 195, 21-29.
15. Hameed, Y.T., Idris, A., Hussain, S.A., **Abdullah, N.**, Man, H.C., Suja, F. (2018) A tannin-based agent for coagulation and flocculation of municipal wastewater as a pretreatment for biofilm process, *Journal of Cleaner Production*, 182, pp. 198-205
16. Thomas Choong SY, **Abdullah N**, Abdullahi BM, Elias BS, Salmiaton A. (2017), Photocatalytic Reduction of Aqueous Cr(VI) with CdS under Visible Light Irradiation: Effect of Particle Size , *Bulletin of Chemical Reaction Engineering and Catalysis*, 12, 62-70
17. Zhang X, Ismail, M.H.S, Ahmadun F-R B, **Abdullah, N.**, Hee C (2017), Novel kaolinite based coolant for hyperthermal pyrotechnic aerosol cooling, *App. Clay Sc.*,136, (152-157).
18. Roslan J. Mustapa Kamal SM, Md. Yunos KF, **Abdullah N** (2017), Assessment on multilayer ultrafiltration membrane for fractionation of *tilapia* by-product protein hydrolysate with angiotensin I-converting enzyme (ACE) inhibitory activity, *Separation and Purification Technology*, 173, 250-257.
19. Makama A.B., Ali S., Saion E.B., Choong T.S.Y., **Abdullah N.** (2016) Synthesis of CdS Sensitized TiO₂ Photocatalysts: Methylene Blue Adsorption and Enhanced Photocatalytic Activities, *Int. J. Photoenergy*, 2016
20. Haghshenas B., Haghshenas B., Nami Y., Khosroushahi A. Y., **Abdullah N.**, Barzegari A., Rosli R., Hejazi MS (2016). Probiotic Assessment of *Lactobacillus plantarum* 15HN and *Enterococcus mundtii* 50H Isolated from Traditional Dairies Microbiota, *Adv. Pharm. Bulletin*, 6(1), 37-47
21. Samavati, R. and **Abdullah, N.** (2016). The experimental Assessment and study of Ubi Kayu starch as fluid loss control agent in water-based drilling mud, *International Journal of Scientific Research in Chemical Engineering*, 3(1),1-6.
22. Mohamad N.L., Mustapa Kamal SM, Mokhtar M.N, Hussain S.A., **Abdullah N.**, (2016) Dynamic mathematical modelling of reaction kinetics for xylitol fermentation using *Candida tropicalis*, *ciocem Eng. J.* 111, 10-17

Books / Monographs

1. Khamus Teknologi Hijau: Reka Bentuk Teknologi Hijau (2022), Siri Khamus Istilah MABBIM, Dewan Bahasa dan Pustaka, ISBN:978-983-49-3713-3 (Ku Hamid KH, **Abdullah N**, Mohamad SE & Mohammad M)
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2. Expanded Bed Adsorption Chromatography: For Purification of Recombinant GST Protein, by **Norhafizah Abdullah** (2009), Lambert Academic Publishing, Koln, Germany, ISBN:978-3-8383-1029-9.

Supervision (Only for Completed and Graduated)

1. Sepehr Azizkhani (graduated 2021), Synthesis and Evaluation of Graphene Oxide-Silica- Chitosan as Adsorbent for Lead & Cadmium Metal Ions Removal.
2. Benard Ho Chon Chan (graduated 2021), Sub-critical water extraction (SWE) of eicosapentaenoic acid (EPA) from *Nannochloropsis gaditana*
3. Hassani Abdelkader (graduated 2021), Formulation, characterization and cytotoxicity evaluation of orotic acid and magnesium orotate loaded into gum arabic and chitosan nanoparticles for drug delivery.
4. Hameed Yasir Talib (graduated 2019) A tannin-based coagulant and flocculant on a biofilm bacterial community and the nitrification process in a municipal wastewater biofilm treatment unit.
5. Jumardi Roslan (graduated 2020), Enzymatic Hydrolysis of Tilapia byproduct Proteins in a membrane reactor
6. Abdullahi Makama Baba (2019), Quantitative study of CNT by Gel Chromatography
7. Zhang Xiaotian (graduated 2018), Kaolinite based coolant for hyperthermal pyrotechnique aerosol cooling
8. Raheleh Samavati -Starch based drilling mud (Graduated 2016) – **main SV**
9. Baba Shehu Umar Ibn Abubakar (GS23024)-PAH Degradation from Petroleum Spillage using Indigenous Microbes (Graduated 2015) – **main SV**
10. Babak Haghshenas- Probiotic from Iranian Dairy Product for Cancer Targetting (Graduated 2015) – **main SV**
11. Yousef Nami- Screening, Isolation, Characterization and Development of Probiotic strain expressing anticancer properties (Graduated 2015) – main SV
12. Magaret Sivapragasam- Purification strategy for recombinant CGTase enzyme (Graduated 2015) – **main SV**
13. Ahmed Suliman Hussein Eisa (GS14771), PhD Degree, Project entitled “In Vivo Study of Controlled Release and Targeting of Cancer Cells by Using Cassava Linamarin Biodegradable Nanocapsule (Graduated 2019) – **main SV**
14. Michelle Ng Yeen Tan (GS14070), PhD Degree, Project entitled “Production and Purification of Hepatitis B Core Antigen (HBcAg)”
15. Chong Gun Hean (GS16616), PhD Degree, Project entitled “Nanoencapsulation of Linamarin drug in Supercritical CO₂ Condition”
16. Mohammad Hadi Shahrokh (GS15699), PhD Degree, Project entitled “Design, Fabrication and Characterisation of Thick-Film Gas Sensors”
17. Roshanida binti A. Rahman (GS15943), PhD Degree, Project entitled “Scaling-Up of Liquid State Bioconversion (LSB) Biodewatering Process for Sewage Treatment Plant Sludge”
18. Siti Hajar Othman (GS17837), PhD Degree, Project entitled “Synthesization, Characterization and Determination of The Photocatalytic Properties of Titanium Dioxide Nanoparticles”
19. Mirsasan Mirpour (GS19196), PhD Degree, Project entitled “Enantioselective Bioconversion of R-(+)-Limonene to R-(+)-Terpineol by Microorganisms in Emulsion System”
20. Ahmadu Ali Farouq- Isolation of coprophilus cellulase-producing fungi from Elephant dung for the production of Cellulosic bioethanol form biomass material
21. Nurul Lina-Xylitol Production and Optimization Study using Stirred Tank Bioreactor

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