



## CURRICULUM VITAE

### DR. IZZUDIN IBRAHIM



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#### Academic Qualifications

- B.Sc. Chemical Engineering, 2012, University of Minnesota Twin-Cities, Minnesota, USA
- M.Sc. Environmental Biotechnology, 2016, Universiti Putra Malaysia, Selangor, Malaysia
- PhD. Environmental Science, 2021. Kyushu Institute of Technology, Kitakyushu, Japan

#### Area of Interest

- Oil palm biomass recycling and utilization
- Carbon material
- Hydrothermal treatment and processing
- Wastewater treatment

#### Appointment

- Senior Lecturer, Department of Chemical & Environmental Engineering, Faculty of Engineering, UPM

#### Professional Qualification/ Membership/ Affiliation

- Graduate Member, Board of Engineers Malaysia (BEM)

#### Publications

##### Journals

1. Farid, M. A. A., Ibrahim, I., Lease, J., Tsubota, T., & Andou, Y. (2023). Effect of solvent and acid catalyst selection on lignin recovery and purity in autoclave-assisted organosolv extraction. *Bioresource Technology Reports*, 24, 101622.
  2. Ibrahim, I., Tsubota, T., Hassan, M. A., & Andou, Y. (2021). Surface Functionalization of Biochar from Oil Palm Empty Fruit Bunch through Hydrothermal Process. *Processes*, 9(1), 149.
  3. Ahmad Farid, M. A., Zakaria, M. R., Hassan, M. A., Mohd Ali, A. A., Othman, M. R., Ibrahim, I., Samsudin, M. H., & Shirai, Y. (2019). A holistic treatment system for palm oil mill effluent by incorporating the anaerobic-aerobic-wetland sequential system and a convective sludge dryer. *Chemical Engineering Journal*, 369
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4. Samsudin, M. H., Hassan, M. A., Idris, J., Ramli, N., Mohd Yusoff, M. Z., Ibrahim, I., Othman, M. R., Mohd Ali, A. A., & Shirai, Y. (2019). A one-step self-sustained low temperature carbonization of coconut shell biomass produced a high specific surface area biochar-derived nano-adsorbent. *Waste Management & Research: The Journal for a Sustainable Circular Economy*, 37(5), 551–555.
5. Ibrahim, I., Hassan, M. A., Abd-Aziz, S., Shirai, Y., Andou, Y., Othman, M. R., Ali, A. A. M., & Zakaria, M. R. (2017). Reduction of residual pollutants from biologically treated palm oil mill effluent final discharge by steam activated bioadsorbent from oil palm biomass. *Journal of Cleaner Production*, 141, 122–127.
6. Idris, J., Shirai, Y., Andou, Y., Mohd Ali, A. A., Othman, M. R., Ibrahim, I., Yamamoto, A., Yasuda, N., & Hassan, M. A. (2016). Successful scaling-up of self-sustained pyrolysis of oil palm biomass under pool-type reactor. *Waste Management & Research: The Journal for a Sustainable Circular Economy*, 34(2), 176–180.
7. Zakaria, M. R., Hirata, S., Fujimoto, S., Ibrahim, I., & Hassan, M. A. (2016). Soluble inhibitors generated during hydrothermal pretreatment of oil palm mesocarp fiber suppressed the catalytic activity of Acremonium cellulase. *Bioresource Technology*, 200, 541–547.
8. Idris, J., Shirai, Y., Andou, Y., Ali, A. A. M., Othman, M. R., Ibrahim, I., Husen, R., & Hassan, M. A. (2015). Improved yield and higher heating value of biochar from oil palm biomass at low retention time under self-sustained carbonization. *Journal of Cleaner Production*, 104, 475–479.
9. Idris, J., Shirai, Y., Andou, Y., Mohd Ali, A. A., Othman, M. R., Ibrahim, I., & Hassan, M. A. (2015). Self-sustained carbonization of oil palm biomass produced an acceptable heating value charcoal with low gaseous emission. *Journal of Cleaner Production*, 89, 257–261.
10. Idris, J., Shirai, Y., Ando, Y., Ali, A. A. M., Othman, M. R., Ibrahim, I., & Hassan, M. A. (2014). Production of biochar with high mineral content from oil palm biomass. *Malaysian Journal of Analytical Sciences*, 18(3).

#### Patent

Andou, Y, Ibrahim, I. Japanese Patent Application Number 2021-098297, Application date: 2021/06/11  
 “Method for Producing Alkali-Soluble Cellulose Material from Plant Biomass”

#### Past Research Projects

Project No	Project Title	Role	Year	Source of Fund	Status
1.	Gasification of Biomass to produce syngas using captured CO <sub>2</sub> from petroleum industries	Member	2022-2023	Petronas	Completed
2.	Survey on municipal solid waste management in selected cities in Malaysia	Member	2017 - 2018	Mitsubishi Heavy Industries	Completed
3.	Start-up and batch operations of co-composting of treated palm oil mill effluent sludge and empty fruit bunch at semi-commercial plant	Member	2017	TDM Berhad	Completed

4.	Promotion of Green Economy with Palm Oil Industry for Biodiversity Conservation in Malaysia (SATREPS)	Member	2016-2018	KPT/JICA	Completed
5.	Feasibility study on accelerated co-composting of rice husk and chicken manure mixture	Member	2016-2017	Novozymes Malaysia	Completed
6.	Biosolids pelletizing for the use on landscaping plant	Member	2017	Indah Water Konsortium	Completed
7.	Investigation on plant growth (maize) and heavy metal uptake from application of biomass waste from biofermentation process	Member	2017	CJ Bio Malaysia	Completed

### Honours and Awards

Name of Awards	Title	Award Authority	Award Type	Year
Academic Awards	Monbukagakusho Scholarship (MEXT)	Government of Japan	Scholarship	2018-2021
Academic Awards	Federal Scholarship	JPA	Scholarship	2009-2012

### Language Proficiency

- English (Excellent, 5/5)
- Malay (Excellent, 5/5)

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