

Curriculum Vitae

PERSONAL DATA

NAME: Farooq A. Al-Sheikh
DEPARTMENT: Department of Chemical Engineering
University of Technology
Baghdad, Iraq
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EDUCATION

Ph.D., Chemical Engineering, December 2018.
University of Waterloo, ON, Canada.
Thesis: Reducing Environmental Impacts of the Petroleum Refining Operations: Studies Related to Water Treatment and Carbon Dioxide Emissions.
UWSpace. <http://hdl.handle.net/10012/14281>

M.S., Chemical Engineering, July 2007.
University of Technology, Baghdad, Iraq.
Thesis: Control System of a Fluidized Catalytic Cracking Unit (FCCU).

B.S., Chemical Engineering, July 2003.
University of Technology, Baghdad, Iraq.
Senior Project: Production of Phthalic Anhydride.

EXPERIENCE

- Lecturer,
Department of Chemical Engineering, University of Technology, Baghdad, Iraq,
November 2008 – Present.

AREAS OF RESEARCH INTERESTS:

- Transport Phenomena
- Environmental Treatments
- Petroleum Refining and Petrochemical Industries
- Optimization and Simulation using Softwares (MATLAB and Polymath)

COURSES TAUGHT (University of Technology):

- MATLAB Program (undergrade study)
- Control Sytem (undergrade study)
- Numerical Analysis Lab. (grade study)

LANGUAGES:

- Arabic
- English

AWARDS:

- Iraqi Scholarship, 2014-2018.

CERTIFICATES:

- Teaching Methods (University of Technology, Baghdad, Iraq), 2008.

PUBLISHED ARTICLES:

1. [Paper] Abd, A. N., Shakor, Z. M., Al-Zuhairi, F. K., & Al-Sheikh, F. (2024). Recent technologies in second-generation bioethanol production from biomass: A review. *International Journal of Green Energy*, 1-19.
2. [Paper] Tayib, Y. M., Al-Sheikh, F., Shakor, Z. M., & Anderson, W. A. (2024). Biodiesel production from by extraction of carp fish (Cyprinidae) oil and transesterification using CaO derived from limestone and eggshells as heterogeneous catalysts. *Biofuels*, 15(6), 699-709.
3. [Paper] Noori, W. A., Hantosh, A. A., Al-Sheikh, F., Abdul Razak, A. A., & Shakour, Z. M. (2024). Desulfurization of Light Distillate by Catalytic Oxidation Integrated with Emulsification. *Chemistry Africa*, 1-10.
4. [Paper] Hussein, Z. A., Shakor, Z. M., Alzuhairi, M., & Al-Sheikh, F. (2023). Kinetic and Thermodynamic Study of the Pyrolysis of Plastic Waste. *Environmental Processes*, 10(2), 27.
5. [Paper] Tayib, Y. M., Al-Sheikh, F., Shakor, Z. M., & Anderson, W. A. (2023). Biodiesel production from fish oil: a review. *Biofuels*, 1-14.
6. [Paper] Hathal, M. M., Al-Jadir, T., Al-Sheikh, F., Edan, M. S., Haider, M. J., Rsool, R. A., ... & Badawy, T. (2023). Thermal performance characterization of a thermal energy storage tank with various phase change materials. *International Journal of Thermofluids*, 18, 100322.

7. [Paper] Bassim, S., Mageed, A. K., Razak, A. A. A., & Al-Sheikh, F. (2023). Photodegradation of Methylene Blue with aid of Green Synthesis of CuO/TiO₂ Nanoparticles from Extract Citrus Aurantium Juice. *Bulletin of Chemical Reaction Engineering & Catalysis*, 1.
8. [Paper] Al-Sheikh, F., Jasim, F. T., Al-Humairi, S. T., Hussein, I., AbdulRazak, A. A., Shakor, Z. M., & Rohani, S. (2023). Adsorption of Blue Cationic Thiazine Dye from Synthetic Wastewater by Natural Iraqi Bentonite Using Response Surface Methodology: Isotherm, Kinetic, and Thermodynamic Studies. *Chemistry Africa*, 1-11.
9. [Paper] Khazaal, S. H., Al-Sheikh, F., & Al-Ameri, M. (2022, December). Using activated carbon to adsorb Co (II) from synthetic solution: Isotherms and optimization studies. In *AIP Conference Proceedings* (Vol. 2415, No. 1, p. 060017). AIP Publishing LLC.
10. [Paper] Haider, A., Ali, G., Haider, M. J., Edan, M. S., Al-Obaidy, R., Thamir, A., ... & Al-Sheikh, F. (2022). Modification optical properties of TiO₂ nanostructure as solar cell. *Energy Reports*, 8, 77-85.
11. [Paper] Al-Karim, A. A., Shakor, Z. M., Al-Sheikh, F., & Anderson, W. A. (2022). Experimental and kinetic study of vacuum residue cracking over zirconium based catalysts. *Reaction Kinetics, Mechanisms and Catalysis*, 135(2), 847-865.
12. [Paper] Hussein, Z. A., Shakor, Z. M., Alzuhairi, M., & Al-Sheikh, F. (2022). The yield of gasoline range hydrocarbons from plastic waste pyrolysis. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 44(1), 718-731.
13. [Paper] Aammer, H., Shakor, Z. M., Al-Sheikh, F., Al-Naimi, S. A., & Anderson, W. A. (2022). Simulation and Optimization of the Ethane Cracking Furnace Using ASPEN PLUS and MATLAB: A Case Study from Petrochemical Complexes. *Combustion Science and Technology*, 1-21.
14. [Paper] Hussein, Z. A., Shakor, Z. M., Alzuhairi, M., & Al-Sheikh, F. (2021). Thermal and catalytic cracking of plastic waste: a review. *International Journal of Environmental Analytical Chemistry*, 1-18.
15. [Paper] Shakor, Z. M., Mahdi, H. H., Al-Sheikh, F., Alwan, G. M., & Al-Jadir, T. (2021). Ni, Cu, and Zn metal ions removal from synthetic wastewater using a watermelon rind (*Catullus landaus*). *Materials Today: Proceedings*.
16. [Paper] Al-Sheikh, F., Moralejo, C., Pritzker, M., Anderson, W. A., & Elkamel, A. (2020). Batch adsorption study of ammonia removal from synthetic/real wastewater using ion exchange resins and zeolites. *Separation Science and Technology*, 56(3), 462-473.
17. [Paper] Al-Sheikh, F., Moralejo, C., Pritzker, M., Anderson, W. A., & Elkamel, A. (2020). Ammonia removal from real wastewater using a LEWATIT S 108 H resin: A batch process and fixed-bed column. *Separation Science and Technology*, 55(16), 2869-2878.
18. [Conference] Farooq A. Al-Sheikh, William A. Anderson, Ali Elkamel (2018). Implementing Carbon Capture Technology onto Refineries: A case study from a fluidized catalytic cracking (FCC) unit and steam methane reformer (SMR) unit, Toronto, Canada.
19. [Conference] Farooq A. Al-Sheikh, Carol Moralejo, Mark Pritzker, William A. Anderson, Ali Elkamel (2018). Comparative study of ammonia removal from mining wastewater using ion-exchange resins and zeolites: A batch process and fixed-bed column, Toronto, Canada.
20. [Paper] Al-Sheikh, F. A., Moralejo, C., Pritzker, M., Anderson, W. A., & Elkamel, A. (2017). Comparison of Adsorbents for Ammonia Removal from Mining Wastewater. *World Academy of Science, Engineering and Technology, International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering*, 11(10), 681-689.

21. [Paper] Al-Sheikh, F. A., Elkamel, A., & Anderson, W. A. (2017). Comparison between Post-and Oxy-Combustion Systems in a Petroleum Refinery Unit Using Modeling and Optimization. *World Academy of Science, Engineering and Technology, International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering*, 11(12), 747-753.
22. [Conference] Alwan, G. M., Mehdi, F. A., & Murtadua, M. S. (2012). pH control of a wastewater treatment unit using Labview and genetic algorithm. In *the Sixth Jordan International Chemical Engineering Conference* (pp. 1-10).
23. [Conference] Alwan Gh. M, Aldhhan, M. & Mehdi, F. A. (2012). Improving the performance of autothermal catalytic membrane reactor via stochastic optimization, preceeding of the International Conference on Engineering and Information Technology, Toronto, Canada.
24. [Conference] Mehdi, F. A. & Al-Naimmi, S. (2011). Studying effects of inputs flow-rates on temperatures of both reactor and regenerator in a fluidized catalytic cracking unit (FCCU), preceeding of the 1st Iraqi conference on oil studies, Baghdad, Iraq.
25. [Conference] Mehdi, F. A. (2011). Inferential control of a wastewater treatment unit, preceeding of the 1st Scientific conference on modern technologies in oil & gas refining, Baghdad, Iraq.
26. [Conference] Al-Naimmi, S., Mehdi, F. A. (2011). Decoupling Control of a FCC Unit Using Fuzzy Logic, preceeding of the 1st Scientific conference on modern technologies in oil & gas refining, Baghdad, Iraq.
27. [Paper] Alwan, G. M., & Mehdi, F. A. (2010). Study the stability of a wastewater treatment unit using LabVIEW, *Tekkrit Journal*, 17(4) 21-31.
28. [Paper] Alwan, G. M., Mehdi, F. A., Arazak, A. A., & Manual, N. (2010). Operation and pH control of a wastewater treatment unit using LabVIEW, *Eng. & Tech. Journal*, 28(17) 5524-5546.

CONFERENCES:

1. 3rd International Conference on Materials Engineering & Science (IConMEAS 2020), Kuala Lumpur, Malaysia, 2020
2. 6th Jordan International Chemical Engineering Conference, Amman, Jordan, 2012.
3. 1st Iraqi conference on oil studies, Baghdad, Iraq, 2011.
4. 1st Scientific conference on modern technologies in oil & gas refining, Baghdad, Iraq, 2011.