

## Publications and presentations

### Journal papers:

- **B Aghel**, M Maleki, S Sahraie, E Heidaryan. Desorption of carbon dioxide from a mixture of monoethanolamine with alcoholic solvents in a microreactor. *Fuel* 306, 121636 (2021).
- SI Yahya, **B Aghel**. Estimation of kinematic viscosity of biodiesel-diesel blends: Comparison among accuracy of intelligent and empirical paradigms. *Renewable Energy* 177, 318-326 (2021).  
**Q1**
- S Janati, **B Aghel**, MS Shadloo. The effect of alkanolamine mixtures on CO<sub>2</sub> absorption efficiency in T-Shaped microchannel. *Environmental Technology & Innovation*, 102006 (2021).
- A Gouran, **B Aghel**, F Nasirmanesh. Biodiesel production from waste cooking oil using wheat bran ash as a sustainable biomass *Fuel* 295, 120542 (2021).
- S Jokar, **B Aghel**, S Fathi, M Karimi, Removal of dissolved oxygen from industrial raw water in a microchannel *Environmental Technology & Innovation*, 101672 (2021).
- M Mohadesi, **B Aghel**, MH Razmegir. COD Reduction in Petrochemical Wastewater Using the Solar Photo-Fenton Process. *Journal of Chemical and Petroleum Engineering* 55 (1), 69-81 (2021).
- M Mohadesi, **B Aghel**, A Gouran. Liquid-Liquid Extraction in a Microextractor: A Laboratory Examination and Thermodynamic Modeling of N-Hexane+ Benzene+ Sulfolane System *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)* 40 (2), 657-666 (2021).
- SI Yahya, A Rezaei, **B Aghel**. Forecasting of water thermal conductivity enhancement by adding nano-sized alumina particles. *Journal of Thermal Analysis and Calorimetry* (2021).
- **B Aghel**, M Mohadesi, MH Razmegir. COD Reduction in Petrochemical Wastewater using the Solar Photo-Fenton Process. *Journal of Chemical and Petroleum Engineering* (2021).

- M Mohadesi, **B Aghel**, M Maleki, A Ansari. Study of the transesterification of waste cooking oil for the production of biodiesel in a microreactor pilot: The effect of acetone as the co-solvent. *Fuel* (2020) 117736.
- M Mohadesi, **B Aghel**. Use of ANFIS/Genetic Algorithm and Neural Network to Predict Inorganic Indicators of Water Quality. *Journal of Chemical and Petroleum Engineering* (2020) 155-164.
- **B Aghel**, S Mansouri, K Varmira. Continuous purification of phosphoric acid in a microchannel. *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)* (2020).
- **B Aghel**, S Sahraie, E Heidaryan. Comparison of aqueous and non-aqueous alkanolamines solutions for carbon dioxide desorption in a microreactor. *Energy* (2020) 117618.
- HS Santana, JL Silva, **B Aghel**, J Ortega-Casanova. Review on microfluidic device applications for fluids separation and water treatment processes. *SN Applied Sciences* 2 (3) (2020) 1-19.
- S Karimi, A Shokri, **B Aghel**. Remediation of Spent Caustic in the Wastewater of Oil Refinery by Photo-Fenton Process. *Archives of Hygiene Sciences* 9 (3) (2020) 179-188.
- **B Aghel**, S Sahraie, E Heidaryan. Carbon dioxide desorption from aqueous solutions of monoethanolamine and diethanolamine in a microchannel reactor. *Separation and Purification Technology* 237 (2020) 116390.
- **H Moayedi**, **B Aghel**, LK Foong, DT Bui. Feature validity during machine learning paradigms for predicting biodiesel purity. *Fuel* 262 (2020), 116498.
- M Mohadesi, **B Aghel**, M Maleki, A Ansari. The use of KOH/Clinoptilolite catalyst in pilot of microreactor for biodiesel production from waste cooking oil. *Fuel* 263 (2019), 116659.
- **M Mohadesi**, **B Aghel**, A Gouran, MH Razmegir. Oil refinery wastewater treatment using Fenton and photo-Fenton processes for the removal of COD using the Box-Behnken method. *Journal of Chemical and Petroleum Engineering* (2020). 54 (1), 35-46.

- **B Aghel**, M Mohadesi, A Gouran. Liquid-liquid equilibrium of a ternary system of water+ ethanol+ benzene or furfural in a micro-extractor: experimental investigation and thermodynamic modeling. *Separation Science and Technology* (2019), 1-10.
- H Moayedi, **B Aghel**, B Vaferi, LK Foong, DT Bui. The feasibility of Levenberg–Marquardt algorithm combined with imperialist competitive computational method predicting drag reduction in crude oil pipelines. *Journal of Petroleum Science and Engineering* (2019), 106634.
- **B Aghel**, S Sahraie, E Heidaryan, K Varmira. Experimental study of carbon dioxide absorption by mixed aqueous solutions of methyl diethanolamine (MDEA) and piperazine (PZ) in a microreactor. *Process Safety and Environmental Protection* 131(2019), 152-159.
- **B Aghel**, M Mohadesi, A Ansari, M Maleki. Pilot-scale production of biodiesel from waste cooking oil using kettle limescale as a heterogeneous catalyst. *Renewable Energy* 142, (2019)207-214.
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- **B Aghel**, A Gouran, MH Razmegir. Simulation of pentane plant of Kermanshah oil refinery company. *Petroleum Science and Technology* 37 (17), (2019)1917-1923.
- **B Aghel**, A Rezaei, M Mohadesi. Modeling and prediction of water quality parameters using a hybrid particle swarm optimization–neural fuzzy approach. *International Journal of Environmental Science and Technology* 16 (8), (2019) 4823-4832.
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- **B Aghel**, M RAHIMI, S Almasi. EXPERIMENTAL STUDY ON HEAT TRANSFER CHARACTERISTICS OF A MODIFIED TWO-PHASE CLOSED THERMOSYPHON. *Thermal Science* 21 (6) (2017) 2.
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- M Mohadesi, **B Aghel**, MH Khademi, S Sahraei. Optimization of biodiesel production process in a continuous microchannel using response surface methodology. *Korean Journal of Chemical Engineering* 34 (4), (2017) 1013-1020.
- **B Aghel**, M Rahimi, S Almasi. Heat-transfer enhancement of two-phase closed thermosyphon using a novel cross-flow condenser. *Heat and Mass Transfer* 53 (3), (2017) 765-773.
- A Jarrahan, **B Aghel**, E Heidaryan. On the viscosity of natural gas. *Fuel* 150, (2015) 609-618.
- M Rahimi, **B Aghel**, B Hatamifar, M Akbari, AA Alsairafi. CFD modeling of mixing intensification assisted with ultrasound wave in a T-type microreactor. *Chemical Engineering and Processing: Process Intensification* 86, (2014) 36-46.
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- **B. Aghel**, N. Najafian, M. Karimi , Novel Method for Hydrogen Generation, Fuel, Energy and Environment National Congress, Presented, Tehran ,Iran, May 2008.
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