

Dr. Mohammed Al-Yaari

Associate Professor



Personal Data:

Nationality | Yemeni

Date of Hire | August 2013

Date Rank Obtained | August 2022

Department | Chemical Engineering

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Education:

Academic Degree	Major	Specialty	Place of Issue	Address	Date
Doctorate (Ph.D.)	Chemical Engineering	Polymers	King Fahd University of Petroleum and Minerals	Dhahran, Saudi Arabia	June 2013
Masters (M.Sc.)	Chemical Engineering	Polymers	King Fahd University of Petroleum and Minerals	Dhahran, Saudi Arabia	June 2008
Bachelor (B.Sc.)	Chemical Engineering	Chemical Engineering	Baghdad University	Baghdad, Iraq	June 2000

Ph.D, Master or Fellowship Research Title: (Academic Honors or Distinctions):

Ph.D. Dissertation	Pressure Drop Reduction of Stable Water in Oil Emulsion Flow in Pipes
Master Thesis	Influence of Drag Reducing Polymers on Oil-Water Flow Characteristics

Experiences:

Title of Job	Address of Work	Country	Date	
Associate Professor	Chemical Engineering Department, College of Engineering, King Faisal University	Saudi Arabia	From	August 2022
			To	Present
Department Chair	Chemical Engineering Department, College of Engineering, King Faisal University	Saudi Arabia	From	October 2017
			To	October 2022

Assistant Professor	Chemical Engineering Department, College of Engineering, King Faisal University	Saudi Arabia	From	August 2013
			To	August 2022
Chair of the Committee of Development & Quality Assurance	College of Engineering, King Faisal University	Saudi Arabia	From	February 2020
			To	September 2022
Chair of the Committee of Cooperative-Training & Community Engagement	College of Engineering, King Faisal University	Saudi Arabia	From	September 2022
			To	September 2023
Member of the Board of Directors, Centre of Water Studies	King Faisal University	Saudi Arabia	From	March 2020
			To	March 2022
Committee Member of the KFU Strategic Plan (2020-2024)	King Faisal University	Saudi Arabia	From	May 2018
			To	January 2020
Chair of the Cooperative Training & Community Engagement Committee	College of Engineering, King Faisal University	Saudi Arabia	From	Dec. 2013
			To	Sep. 2019
Chair of the National Commission for Assessment & Academic Accreditation (NCAAA)	College of Engineering, King Faisal University	Saudi Arabia	From	Dec. 2014
			To	Nov. 2016
Member of the University Standing Curriculum Committee	King Faisal University	Saudi Arabia	From	Nov. 2016
			To	Dec. 2017

Research Interests:

1. Polymers
2. Water Purification
3. Process Modelling
4. Thermal Analysis
5. Flow Assurance
6. Multiphase Flow
7. Emulsion Technology

Publications:

No.	Name of author(s)	Title of Publication	Publisher and Date of Publication	Link of Publication
1	M. Al-Yaari, T. A. Saleh	Removal of lead from wastewater using synthesized polyethylenimine-grafted graphene oxide	nanomaterials, 2023	https://doi.org/10.3390/nano13061078
2	Alhulaybi, Z., Dubdub, I.,	Pyrolysis Kinetic Study of Polylactic Acid	Polymers, 2023	https://doi.org/10.3390/polym15010012

	Al-Yaari, M., Almithn, A., Al-Naim, A.F., Aljanubi, H.			
3	Al-Adhaileh, M., Aldhyani, T., Alsaade, F., Al-Yaari, M., Albaggar, A.	Groundwater Quality: The Application of Artificial Intelligence	Journal of Environmental and Public Health, 2022	https://doi.org/10.1155/2022/8425798
4	M. Al-Yaari, T. A. Saleh	Removal of mercury from water by a novel composite of polyacrylate-modified carbon	ACS Omega, 2022	https://pubs.acs.org/doi/10.1021/acsomega.2c00274
5	M. Al-Yaari, T. Aldahyani, S. Rushd	Prediction of Arsenic Removal from Contaminated Water Using Artificial Neural Network Model	Applied Sciences, 2022	https://doi.org/10.3390/app12030999
6	M. Al-Yaari, I. Dubdub	Pyrolytic Behavior of Polyvinyl Chloride: Kinetics, Mechanisms, Thermodynamics, and Artificial Neural Network Application	Polymers, 2021	https://doi.org/10.3390/polym13244359
7	M. Al-Yaari, I. Dubdub	Pyrolysis of high-density polyethylene: I. Kinetic Study	The 9th Jordan International Chemical Engineering Conference (JICHEC9), 2021 , 12-14 Oct.	http://www.jeaconf.org/UploadedFiles/AssetsManagement/JICHEC%202021/12/JICHEC%20IX.pdf
8	I. Dubdub, M. Al-Yaari	Pyrolysis of high-density polyethylene: II. Artificial Neural Networks Modeling	The 9th Jordan International Chemical Engineering Conference (JICHEC9), 2021 , 12-14 Oct.	http://www.jeaconf.org/UploadedFiles/AssetsManagement/JICHEC%202021/12/JICHEC%20IX.pdf
9	I. Dubdub, M. Al-Yaari	Thermal behavior of mixed plastics at different heating rates: I. Pyrolysis Kinetics	Polymers, 2021	https://doi.org/10.3390/polym13193413
10	I. Dubdub, M. Al-Yaari	Pyrolysis of Mixed Plastic Waste: II. An Artificial Neural Networks Prediction and Sensitivity Analysis	Applied Sciences, 2021	https://doi.org/10.3390/app11188456
11	A. Hussain, M. Al-Yaari	Development of polymeric membranes for oil/water separation	Membranes, 2021	https://doi.org/10.3390/membranes11010042
12	M. Al-Yaari, T. A. Saleh, O. Saber	Removal of Mercury from Polluted Water by a Novel Composite of Polymer Carbon Nanofiber: Kinetic, Isotherm, and Thermodynamic Studies	RSC Advances, 2021	https://doi.org/10.1039/D0RA08882J

13	N. Hafsah, M. Al-Yaari , S. Rushd	Prediction of Arsenic Removal in Aqueous Solutions with Non-Neural Network Algorithms	Canadian Journal of Chemical Engineering, 2021	https://doi.org/10.1002/cjce.23966
14	T. Aldhyani, M. Al-Yaari , H. AlKahtani, M. Maashi	Water Quality Prediction Using Artificial Intelligence Algorithms	Applied Bionics and Biomechanics, 2020	https://doi.org/10.1155/2020/6659314
15	N. Hafsah, S. Rushd, M. Al-Yaari , M. Rahman	A Generalized Method for Modeling the Adsorption of Heavy Metals with Machine Learning Algorithms	Water, 2020	https://doi.org/10.3390/w12123490
16	T. Al-Mughanham, T. H. H. Aldahyani, B. AlSubari, M. Al-Yaari	Modeling of Compressive Strength of Sustainable Self-Compacting Concrete Incorporating Treated Palm Oil Fuel Ash Using Artificial Neural Network	Sustainability, 2020	https://doi.org/10.3390/su12229322
17	I. Dubdub, M. Al-Yaari	Pyrolysis of Mixed Plastic Waste: I. Kinetic Study	Materials, 2020	https://doi.org/10.3390/ma13214912
18	O. Saber, A. Alshoaibi, M. Al-Yaari , M. Osama	Conversion of Non-Optical Material to Photo-active Nanocomposites through Non-Conventional Techniques for Water Purification by Solar Energy	Molecules, 2020	https://doi.org/10.3390/molecules25194484
19	I. Dubdub, S. Rushd, M. Al-Yaari , E. Gadri	Application of ANN to Model the Friction Losses in Lubricated Pipe Flow of Non-Conventional Oils	Chemical Engineering Communications, 2020	https://doi.org/10.1080/00986445.2020.1823842
20	M. Al-Yaari , I. Dubdub	Application of Artificial Neural Networks to Predict the Catalytic Pyrolysis of HDPE Using Non-Isothermal TGA Data	Polymers, 2020	https://doi.org/10.3390/polym12081813
21	I. Dubdub, M. Al-Yaari	Pyrolysis of Low-Density Polyethylene: Kinetic Study Using TGA Data and ANN Prediction	Polymers, 2020	https://doi.org/10.3390/polym12040891
22	O. Mohamed, A. Aljaafari, A. Alshoaibi, M. Al-Yaari	A Novel Route for Controlling and Improving the Texture of Porous Structures Through Dual Growth of Alumina Nanoparticles and Carbon Nanotubes using Explosion Process of Solid Fuel	Journal of Materials Research and Technology, 2020	https://doi.org/10.1016/j.jmrt.2019.10.030

23	M. Al-Yaari, I.A. Hussein, A. Al-Sarkhi, M.	Effect of Water Salinity on Surfactant-Stabilized Water- Oil Emulsions Flow Characteristics	Experimental Thermal and Fluid Science, 2015	https://doi.org/10.1016/j.expthermflusci.2015.02.001
24	M. Al-Yaari, I. Hussein, and A. Al-Sarkhi	Pressure Drop Reduction of Stabilized Water-in-Oil Emulsions using Organoclays	Applied Clay Science, 2014	https://doi.org/10.1016/j.clay.2014.04.029
25	M. Al-Yaari, A. Al-Sarkhi, I. Hussein, F. Chang, and M. Abbad	Flow Characteristics of Surfactant Stabilized Water- in-Oil Emulsions	Chemical Engineering Research & Design, 2014	https://doi.org/10.1016/j.cherd.2013.09.001
26	Mohammed A. Al-Yaari, Ibenlwaleed A. Hussein, and AbdelSalaam M. Al-Sarkhi	Pressure Drop Reduction of Stable Water-in-Oil Emulsion Using Organoclays	2013 AIChE Annual Meeting, San Francisco, United States, November 3-8, 2013	https://aiche.confex.com/aiche/2013/webprogram/Paper321007.html
27	M. Al-Yaari, A. Al-Sarkhi, I. Hussein, and B. Abu-Sharkh	Effect of Drag Reducing Polymers on Surfactant Stabilized Emulsion Flow Characteristics	Experimental Thermal and Fluid Science, 2013	https://doi.org/10.1016/j.expthermflusci.2013.08.015
28	M. Al-Yaari, I. Hussein, A. Al- Sarkhi, M. Abbad, F. Chang, and B. Abu-Sharkh,	Pressure Drop Reduction of Stable Emulsions: Role of the Aqueous Phase Salinity	SPE-SAS 618, 2013 Annual Technical Symposium & Exhibition, Al-Khobar, Saudi Arabia, May 19- 22, 2013	https://doi.org/10.2118/168078-MS
29	M. Al-Yaari, A. Al-Sarkhi, I. Hussein, F. Chang, M. Abbad and B. Abu-Sharkh	Pressure Drop Reduction of Stable Water-in-Oil Emulsion Flow: Role of Water Fraction and Pipe Diameter	IPTC 16883, the 6th International Petroleum Technology Conference, Beijing, China, March 26- 28, 2013	https://doi.org/10.2523/IPTC-16883-MS
30	M. Al-Yaari, A. Al-Sarkhi, I. Hussein, F. Chang, M. Abbad and B. Abu-Sharkh,	Effect of Water Fraction on Surfactant Stabilized Water- in-Oil Emulsion Flow Characteristics	SPE 164350, 18th Middle East Oil and Gas Show and Exhibition, Manama, Bahrain, March 10- 13, 2013	https://doi.org/10.2118/164350-MS
31	M. Al-Yaari, A. Al-Sarkhi and B. Abu-Sharkh,	Effect of Drag Reducing Polymers on Water Holdup in an Oil-Water Horizontal Flow	International Journal of Multiphase Flow, 2012	https://doi.org/10.1016/j.ijmultiphaseflow.2012.04.001
32	Mohammed A. Al- Yaari and Basel F. Abu- Sharkh	CFD Prediction of Oil-Water Phase Separation in 180° Bend	Asian Transactions on Engineering, 2011	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.676.3111&rep=rep1&type=pdf

33	Mohammed A. Al-Yaari , and Basel F. Abu-Sharkh	CFD Prediction of Stratified Oil-Water Flow in a Horizontal Pipe	Asian Transactions on Engineering, 2011	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.675.3928&rep=rep1&type=pdf
34	Mohammed Al-Yaari	Paraffin Wax Deposition: Mitigation & Removal Techniques	SPE 155412, 2011 SPE-Young Professionals Technical Symposium, Dhahran, Saudi Arabia, March 14-16, 2011	https://doi.org/10.2118/155412-MS
35	M. Al-Yaari , B. Abu-Sharkh, A. Soleimani, U. Al-Mubayeidh and A. Al-Sarkh	Effect of Drag Reducing Polymers on Oil-Water Flow in a Horizontal Pipe	International Journal of Multiphase Flow, 2009	https://doi.org/10.1016/j.ijmultiphaseflow.2009.02.017
36	M. Al-Yaari , B. Abu-Sharkh, A. Soleimani and A. Al-Sarkhi	Effect of Polymer Drag Reducing Agent on Immiscible Oil-Water Horizontal Flow	6th North American Conference on Multiphase Technology, Banaff, Canada, June 4-6, 2008	

Language Proficiency:

1. Arabic
2. English

Research IDs:

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Scopus Author ID: [25645959500](https://orcid.org/25645959500)

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Google Scholar: <https://scholar.google.com/citations?user=OCFLxicAAAAJ&hl=en>