Dr. Mohammed Al-Yaari

Assistant Professor

Personal Data:

Nationality |Yemeni
Date of Hire | August 2013
Date Rank Obtained | Assistant Professor
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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

Title of Job	Address of Work	Country	Date	
Department Chair	Chemical Engineering Department, College of Engineering, King Faisal University	Saudi Arabia	**From**	October 2017
			To	Present
Chair of the Committee of Development & Quality Assurance	College of Engineering, King Faisal University	Saudi Arabia	**From**	February 2020
			To	Present
Member of the Board of Directors, Centre of Water Studies	King Faisal University	Saudi Arabia	**From**	March 2020
			To	Present
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. Aldahyani, S. Rushd	Prediction of Arsenic Removal from Contaminated Water Using Artificial Neural Network Model	Applied Sciences, **2022**	https://doi.org/10.3390/app12030999
2	**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
3	**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
4	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
5	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
6	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

7	A. Hussain, **M. Al-Yaari**	Development of polymeric membranes for oil/water separation	Membranes, **2021**	https://doi.org/10.3390/membranes11010042
8	**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
9	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
10	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
11	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
12	T. Al-Mughanam, 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
13	I. Dubdub, **M. Al-Yaari**	Pyrolysis of Mixed Plastic Waste: I. Kinetic Study	Materials, **2020**	https://doi.org/10.3390/ma13214912
14	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
15	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
16	**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
17	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

18	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
19	**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
20	**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
21	**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
22	**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
23	**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
24	**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
25	**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
26	**M. Al-Yaari**, A. Al-Sarkhi, I. Hussein, F. Chang, M.	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,	https://doi.org/10.2118/164350-MS

	Abbad and B. Abu-Sharkh,		Bahrain, March 10–13, **2013**	
27	**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
28	**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
29	**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
30	**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
31	**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
32	**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

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