Mashallah Rezakazemi

Associate Professor, Ph.D., P.Eng. (Chem. Eng.)
Water & Energy Solutions Technology (WEST) Center,
Faculty of Chemical and Materials Engineering,
Shahrood University of Technology, Shahrood, Iran.
Mobile: +98 912 831 2152
Office: +98 23 3230 0240 EXT: 3463
Fax: +98 23 3239 2230
E-mail: rezakazemi@shahroodut.ac.ir
E-mail: mashalah.rezakazemi@gmail.com
Website: Scopus, ORCID, Research ID, Google Scholar, Linkedin, ResearchGate, Shahoordut, Publons

PROFILE

Dr. Mashallah Rezakazemi received his BEng. and MEng. degrees in 2009 and 2011, respectively, both in Chemical Engineering, from the Iran University of Science and Technology (IUST), and his Ph.D. from the University of Tehran (UT) in 2015. In his first appointment, he served as professor of the Faculty of Chemical and Materials Engineering at the Shahrood University of Technology since 2016. Dr. Rezakazemi has also received his degree promotion to associate professor in 2019.

Dr. Rezakazemi's research is in the general area of the water-energy nexus, CO_2 capture, gas separation, desalination, to the service of the broad areas of learning and training. Specifically, his research in engineered and natural environmental systems involves: (i) membrane-based processes for energy-efficient desalination, CO_2 capture, gas separation, and wastewater reuse, (ii) sustainable production of riched gas stream, water and energy generation with the engineered membrane, (iii) environmental applications and implications of nanomaterials, and (iv) water and sanitation in developing countries.

He has coauthored in more than 120 highly cited journal publications, conference articles and book chapters. He has received major awards (×16) and grants (×12) from various funding agencies in recognition of his research. Notable among these are the Khwarizmi Youth Award from the Iranian Research Organization for Science and Technology (IROST), and Outstanding Young Researcher Award in Chemical Engineering from Academy of Sciences of Iran. He was named a top 1% most Highly Cited Researcher by Web of Science (ESI). He hold a portfolio of research valued in excess of 125,000 Euro. He established an excellent collaboration network in 6 countries.

PROFESSIONAL EXPERIENCE

Shahrood University of Technology (SUT), Iran

2020-Date	Associate Professor
2019-Date	Head of Department
2019-Date	Member of International Affairs Council
2019-Date	Member of Graduate Council at Faculty of Chemical and Materials Engineering
2017-Date	Executive Board of Academic Staff at Faculty of Chemical and Materials Engineering
2016-2019	Assistant Professor

Iran University of Science and Technology (IUST), Iran

2015-16	Postdoctoral Researcher, Water Desalination Using Nanoporous Graphene Membranes

EDITORIAL BOARD MEMBER

2018-Date	Associate Editor	Environmental Chemistry Letter, Springer Nature, IF = 5.922
2018-Date	Editorial Board	Current Analytical Chemistry, Bentham Science, IF = 1.359
2018-2019	Editorial Board	Energy Reports, Elsevier, IF = 3.595
2019-Date	Editorial Board	Frontiers in Chemistry, Frontiers, IF = 3.994
2020-Date	Editorial Board	PLOS ONE, Public Library of Science, IF = 2.74
2018-Date	Associate Editor	Environmental Sciences Europe, Springer Nature
2019-Date	Editorial Board	Materials Science for Energy Technologies, Elsevier
2019-Date	Editorial Board	SN Applied Sciences, Springer Nature
2019-Date	Editorial Board	Frontiers in Chemical Engineering, Frontiers
2020-Date	Editorial Board	Environmental Advances, Elsevier

EDUCATION

17/11/2015	PhD, University of Tehran (UT)
24/09/2011	Fabrication of PDMS/POSS-Fumed Silica nanocomposite membrane for separation of C_3H_8 from H_2, CO_2, CH_4
22/09/2011	MEng, Chem. Eng., IUST
23/09/2009	Preparation of Poly(dimethyl siloxane) [PDMS] Membranes Comprised of 4A Nanoparticles for Gas Separation
22/09/2009	BEng, Chem. Eng., IUST
23/09/2005	Prediction of Vapor Pressure of Pure Components Using Group Contribution Method Based on UNIFAC Approach

HONORS & AWARDS

2020	**Outstanding Young Researcher Award in Chemical Engineering, Academy of Sciences of Iran**
2019-20	**Being named a top 1% most Highly Cited Researcher, Web of Science (ESI)**
2019	Top Researcher of Semnan Province, Iran
2016-20	Outstanding Researcher Award, SUT
2017-20	Top 1% Reviewer in Global Peer Review Awards, Essential Science Indicators (ESI)
2016	National Outstanding Student Award, Ministry of Science, Research and Technology, Iran
2014	Regional Festival of Innovation and Development Award, Iran National Elites Foundation (INEF)
2012-15	Ph.D. Scholarship, Iran National Elites Foundation
2012	Khwarizmi Youth Award, (the most prestigious Iranian scientific award), Iran Government

MEMBERSHIP IN SCIENTIFIC ASSOCIATIONS

2011-Date	National Iranian Society of Elites
2011-Date	Young Researchers and Elites Club, Iran
2006-Date	Member, Society Petroleum Engineering (SPE), ID: 3331072
2008-Date	Member, Iranian Association of Chem. Eng. (IAChE), ID: 863022
2013-14	R&T Consultant, Research & Technology Department, Pars Special Economic Energy Zone, NIOC

VISITING SCHOLAR

08/2019	Materials & Process Engineering (iMMC-IMAP), UCLouvain, Belgium	Prof. Patricia Luis

KEYNOTE SPEAKER

07/2020	International Conference on Membrane Science & Technology (ICM 2020), Pakistan

SCIENTIFIC/ORGANIZING COMMITTEE MEMBER

2019	First National Conference on Chemical Defense
2016	Conference of Novel Findings in Biosciences, Tehran, Iran
2013	Fourth International Conference on Ultrafine Grained and Nano-Structured Materials, Iran

PEER-REVIEWED PUBLICATIONS (h-index = 38, Citation = 4811)

2011

1) ***M. Rezakazemi***, M. Shahverdi, S. Shirazian, T. Mohammadi, A. Pak, CFD simulation of water removal from water/ethylene glycol mixtures by pervaporation, Chemical Engineering Journal, 168 (1) (2011) 60-67, DOI:10.1016/j.cej.2010.12.034.
2) ***M. Rezakazemi***, Z. Niazi, M. Mirfendereski, S. Shirazian, T. Mohammadi, A. Pak, CFD simulation of natural gas sweetening in a gas-liquid hollow-fiber membrane contactor, Chemical Engineering Journal, 168 (3) (2011) 1217-1226, DOI:10.1016/j.cej.2011.02.019.
3) ***M. Rezakazemi***, S. Razavi, T. Mohammadi, A. Ghafari-Nazari, Simulation and Determination of Optimum Conditions of Pervaporative Dehydration of Isopropanol Process Using Synthesized PVA–APTEOS/TEOS Nanocomposite Membranes by Means of Expert Systems, Journal of Membrane Science, 379 (1-2) (2011) 224-232, DOI:10.1016/j.memsci.2011.05.070.
4) A. Marjani, ***M. Rezakazemi***, S. Shirazian, Vapor Pressure Prediction Using Group Contribution Method, Oriental Journal of Chemistry, 27 (2011) 1-5.

2012

5) A. Marjani, ***M. Rezakazemi***, S. Shirazian, Simulation of Methanol Production Process and Determination of Optimum Conditions, Oriental Journal of Chemistry, 28 (2012) 145-151.
6) ***M. Rezakazemi***, S. Shirazian, S.N. Ashrafizadeh, Simulation of ammonia removal from industrial wastewater streams by means of a hollow-fiber membrane contactor, Desalination, 285 (2012) 383-392, DOI:10.1016/j.desal.2011.10.030.
7) F. Hashemi, S. Rowshanzamir, ***M. Rezakazemi***, CFD simulation of PEM fuel cell performance: Effect of straight and serpentine flow fields, Mathematical and Computer Modelling, 55 (3-4) (2012) 1540-1557, DOI:10.1016/j.mcm.2011.10.047.
8) S. Shirazian, ***M. Rezakazemi***, A. Marjani, S. Moradi, Hydrodynamics and mass transfer simulation of wastewater treatment in membrane contactor, Desalination, 286 (2012), 290–295, DOI:10.1016/j.desal.2011.11.039.
9) S. Shirazian, A. Marjani, ***M. Rezakazemi***, Separation of CO_2 by single and mixed aqueous amine solvents in membrane contactors: Fluid flow and mass transfer modeling, Engineering with Computers, 28 (2) (2012) 189-198, DOI: 10.1007/s00366-011-0237-7.
10) S. Shirazian, M. Pishnamazi, ***M. Rezakazemi***, A. Nouri, M. Jafari, S. Noroozi, A. Marjani, Implementation of finite element method for simulation of mass transfer in membrane contactors, Chemical Engineering and Technology, 35 (6) (2012) 1077-1084, DOI: 10.1002/ceat.201100397.
11) ***M. Rezakazemi***, K. Shahidi, T. Mohammadi, Hydrogen separation and purification using crosslinkable PDMS/zeolite nanoparticle A mixed matrix membranes, International Journal of Hydrogen Energy, 37 (19) (2012) 14576-14589, DOI:10.1016/j.ijhydene.2012.06.104.
12) ***M. Rezakazemi***, K. Shahidi, T. Mohammadi, Sorption properties of hydrogen-selective PDMS/zeolite 4A mixed matrix membrane, International Journal of Hydrogen Energy, 37 (22) (2012) 17275-17284, DOI:10.1016/j.ijhydene.2012.08.109.
13) S. Shirazian, ***M. Rezakazemi***, A. Marjani, M.S. Rafivahid, Development of a mass transfer model for simulation of sulfur dioxide removal in ceramic membrane contactors, Asia-Pacific Journal of Chemical Engineering, 7 (6) (2012) 828–834, DOI: 10.1002/apj.641.
14) M. Fasihi, S. Shirazian, A. Marjani, ***M. Rezakazemi***, Computational fluid dynamics simulation of transport phenomena in ceramic membranes for SO_2 separation, Mathematical and Computer Modelling, 56 (11-12) (2012) 278-286, DOI:10.1016/j.mcm.2012.01.010.

2013

15) M. Rostamizadeh, ***M. Rezakazemi***, K. Shahidi, T. Mohammadi, Gas permeation through H_2-selective mixed matrix membranes: Experimental and neural network modeling, International Journal of Hydrogen Energy, 38 (2) (2013) 1128-1135, DOI:10.1016/j.ijhydene.2012.10.069.
16) ***M. Rezakazemi***, S. Shirazian, A. Marjani, Development of a group contribution method based on UNIFAC groups for estimation of vapor pressure of pure hydrocarbon compounds, Chemical Engineering and Technology, 36 (3) (2013) 483–491, DOI: 10.1002/ceat.201200422.
17) ***M. Rezakazemi***, A. Ghafarinazari, S. Shirazian, A. Khoshsima, Numerical modeling and optimization of wastewater treatment using porous polymeric membranes, Polymer Engineering and Science, 53 (6) (2013) 1272-1278, DOI: 10.1002/pen.23375.
18) M. Shahverdi, B. Baheri, ***M. Rezakazemi,*** E. Motaee, T. Mohammadi, Pervaporation study of ethylene glycol dehydration through synthesized (PVA-4A)/polypropylene mixed matrix composite membranes, Polymer Engineering and Science, 53 (7) (2013) 1487–1493, DOI: 10.1002/pen.23406.
19) ***M. Rezakazemi***, M. Iravaninia, S. Shirazian, T. Mohammadi, Transient Computational Fluid Dynamics Modeling of Pervaporation Separation of Aromatic/Aliphatic Hydrocarbon Mixtures Using Polymer Composite Membrane, Polymer Engineering and Science, 53 (7) (2013) 1494–1501, DOI: 10.1002/pen.23410.
20) ***M. Rezakazemi***, T. Mohammadi, Gas sorption through H_2-selective mixed matrix membranes: Experimental and neural network modeling, International Journal of Hydrogen Energy, 38 (32) (2013) 14035-14041, DOI: 10.1016/j.ijhydene.2013.08.062.

2014

21) E. Farno, ***M. Rezakazemi***, N. Kasiri, T. Mohammadi, Ternary Gas Permeation through Synthesized PDMS Membranes: Experimental and CFD Simulation Based on Sorption Dependent System Using Neural Network Model, Polymer Engineering and Science, 54 (1) (2014) 215–226, DOI: 10.1002/pen.23555.
22) ***M. Rezakazemi***, A. Ebadi Amooghin, M.M. Montazer-Rahmati, A.F. Ismail, T. Matsuura, State-of-the-art membrane based CO_2 separation using mixed matrix membranes: An overview on current status and future directions, **Progress in Polymer Science**, 39 (5) (2014) 817-861, DOI:10.1016/j.progpolymsci.2014.01.003. **This paper was selected twice as one of the top 25 hottest articles. IF = 27.**

2015

23) ***M. Rezakazemi***, K. Shahidi, T. Mohammadi, Synthetic PDMS composite membranes for pervaporation dehydration of ethanol, Desalination and Water Treatment 54 (6) (2015) 1542-1549, DOI:10.1080/19443994.2014.887036.
24) ***M. Rezakazemi***, A. Vatani, T. Mohammadi, Synergistic interactions between POSS and fumed silica and their effect on the properties of crosslinked PDMS nanocomposite membranes, RSC Advances, 5 (100) (2015), 82460-82470, DOI: 10.1039/C5RA13609A.
25) B. Baheri, M. Shahverdi, ***M. Rezakazemi***, E. Motaee, T. Mohammadi, Performance of PVA/NaA Mixed Matrix Membrane for Removal of Water from Ethylene Glycol Solutions by Pervaporation, Chemical Engineering Communication, 202 (3) (2015) 316-321, DOI:10.1080/00986445.2013.841149.

2016

26) ***M. Rezakazemi***, A. Vatani, T. Mohammadi, Synthesis and gas transport properties of crosslinked poly(dimethylsiloxane) nanocomposite membrane using octatrimethylsiloxy POSS nanoparticles, Journal of Natural Gas Science and Engineering, 30 (2016) 10-18, DOI:10.1016/j.jngse.2016.01.033.
27) SMR. Razavi, ***M. Rezakazemi***, AB. Albadarin, S. Shirazian, Simulation of CO_2 absorption by solution of ammonium ionic liquid in hollow-fiber contactors, Chemical Engineering and Processing: Process Intensification, 108 (2016) 27–34, DOI: 10.1016/j.cep.2016.07.001.

2017

28) A. Azimi, A. Azari, ***M. Rezakazemi***, M. Ansarpour, Removal of heavy metals from industrial wastewaters: a review, ChemBioEng Reviews, 4 (2017) 37-59, DOI: 10.1002/cben.201600010.
29) ***M. Rezakazemi***, I. Heydari, Zh. Zhang, Hybrid systems: combining membrane and absorption technologies leads to more efficient acid gases (CO_2 and H_2S) removal from natural gas, Journal of CO_2 Utilization, 18 (2017) 362-369, DOI: http://dx.doi.org/10.1016/j.jcou.2017.02.006.
30) ***M. Rezakazemi***, A. Dashti, M. Asghari, S. Shirazian, H_2-selective mixed matrix membranes modeling using ANFIS, PSO-ANFIS, GA-ANFIS, International Journal of Hydrogen Energy, 42 (22) (2017) 15211–15225, DOI: https://doi.org/10.1016/j.ijhydene.2017.04.044.
31) M. Mesbah, E. Soroush, ***M. Rezakazemi***, Development of a least squares support vector machine model for prediction of natural gas hydrate formation temperature, Chinese Journal of Chemical Engineering 25 (9) (2017) 1238-1248, DOI: https://doi.org/10.1016/j.cjche.2016.09.007.
32) A. Muhammad, M. Younas, ***M. Rezakazemi***, Quasi-dynamic modeling of dispersion-free extraction of aroma compounds using hollow fiber membrane contactor, Chemical Engineering Research and Design, 127 (2017) 52-61, DOI: https://doi.org/10.1016/j.cherd.2017.09.007.
33) ***M. Rezakazemi***, S. Mirzaei, M. Asghari, J. Ivakpour, Aluminum Oxide Nanoparticles for Highly Efficient Asphaltene Separation from Crude Oil Using Ceramic Membrane Technology, Oil & Gas Sciences and Technology - Rev. IFP Energies nouvelles, 72 (6) (2017) 34, DOI: https://doi.org/10.2516/ogst/2017031.
34) Zh. Zhang, Sh. Zhao, ***M. Rezakazemi***, F. Chen, P. Luis, B. Van der Bruggen, Effect of flow and module configuration on SO_2 absorption by using membrane contactors, Global NEST Journal, 19 (4) (2017) 716-725, DOI: https://doi.org/10.30955/gnj.002267.

2018

35) M. Ahmadlou, ***M. Rezakazemi***, Computational fluid dynamics simulation of moving-bed nanocatalytic cracking process for the lightening of heavy crude oil, Journal of Porous Media, 21 (6) (2018) 539-553, DOI: 10.1615/JPorMedia.v21.i6.40.
36) ***M. Rezakazemi***, N. Rahmanian, H. Jamil, S. Shirazian, Process Simulation and Evaluation of Ethane Recovery Process using Aspen-HYSYS, Chemical Engineering Transaction 70 (2018) 961-966, DOI: 10.3303/CET1870141.
37) Zh. Zhang, F. Chen, ***M. Rezakazemi***, W. Zhang, C. Lu, H. Chang, X. Quan, Modeling of a CO_2-Piperazine-Membrane Absorption System, Chemical Engineering Research and Design, 131 (2018) 375-384, DOI: https://doi.org/10.1016/j.cherd.2017.11.024.

38) A. Dashti, H. Riasat Harami, ***M. Rezakazemi***, Accurate prediction of solubility of gases within H_2-selective nanocomposite membranes using committee machine intelligent system, International Journal of Hydrogen Energy, 43 (13) (2018) 6614–6624, DOI: https://doi.org/10.1016/j.ijhydene.2018.02.046.
39) A. Muhammad, M. Younas, ***M. Rezakazemi***, CFD Simulation of Copper(II) Extraction with TFA in Non-Dispersive Hollow Fiber Membrane Contactors, Environmental Science and Pollution Research, 25 (12) (2018) 12053–12063, DOI: https://doi.org/10.1007/s11356-018-1282-1.
40) A. Dashti, M. Asghari, H. Soleymani, ***M. Rezakazemi,*** A. Akbari, Modeling of $CaCl_2$ removal by positively charged polysulfone-based nanofiltration membrane using artificial neural network and genetic programming, Desalination and Water Treatment, 111 (2018) 57-67, DOI: https://doi.org/10.5004/dwt.2018.22079.
41) E. Soroush, Sh. Shahsavari, M. Mesbah, ***M. Rezakazemi***, Zh. Zhang, A Robust Predictive Tool for Estimating CO_2 Solubility in Potassium Based Amino Acid Salt Solutions, Chinese Journal of Chemical Engineering, 26 (4) (2018) 740-746, DOI: https://doi.org/10.1016/j.cjche.2017.10.002.
42) ***M. Rezakazemi***, M. Sadrzadeh, T. Matsuura, Thermally stable polymers for advanced high-performance gas separation membranes, **Progress in Energy and Combustion Science**, 66 (2018) 1-41, DOI: https://doi.org/10.1016/j.pecs.2017.11.002. **IF = 27**. **This paper was selected as one of the Top Social Media Articles.**
43) M. Asadollahzadeh, N. Raoufi, ***M. Rezakazemi***, S. Shirazian, Simulation of nonporous polymeric membranes using CFD for bioethanol purification, Macromolecular Theory and Simulations, 27 (3) (2018) 1700084, DOI: 10.1002/mats.201700084.
44) M. Mesbah, Sh. Shahsavari, E. Soroush, N. Rahaei, ***M. Rezakazemi***, Accurate prediction of miscibility of CO_2 and supercritical CO_2 in ionic liquids using machine learning, Journal of CO_2 Utilization, 25 (2018) 99-107, DOI: https://doi.org/10.1016/j.jcou.2018.03.004.
45) ***M. Rezakazemi***, M. Maghami, T. Mohammadi, High Loaded Synthetic Hazardous Wastewater Treatment Using Lab-Scale Submerged Ceramic Membrane Bioreactor, Periodica Polytechnica Chemical Engineering, 62 (3) (2018) 299-304, DOI: https://doi.org/10.3311/PPch.11459.
46) ***M. Rezakazemi***, A. Khajeh, M. Mesbah, Membrane filtration of wastewater from gas and oil production, Environmental Chemistry Letters, 16 (2) (2018) 367–388, DOI: https://doi.org/10.1007/s10311-017-0693-4.
47) ***M. Rezakazemi***, A. Marjani, S. Shirazian, Organic solvent removal by pervaporation membrane technology: Experimental and Simulation, Environmental Science and Pollution Research, 25 (20) (2018) 19818–19825, DOI: https://doi.org/10.1007/s11356-018-2155-3.
48) N. Hajilary, A. Shahi, ***M. Rezakazemi***, Evaluation of socio-economic factors on CO_2 emissions in Iran: factorial design and multivariable methods, Journal of Cleaner Production, 189 (2018) 108-115, DOI: https://doi.org/10.1016/j.jclepro.2018.04.067.
49) ***M. Rezakazemi***, S. Shirazian, Separation performance of nanostructured ceramic membranes: analytical model development, Journal of Non-Equilibrium Thermodynamics, 43 (3) (2018) 245-253, DOI: https://doi.org/10.1515/jnet-2018-0013.
50) A. Sadeghi, H. Nazem, ***M. Rezakazemi***, S. Shirazian, Predictive construction of phase diagram of ternary solutions containing polymer/solvent/nonsolvent using modified Flory-Huggins model, Journal of Molecular Liquids, 263 (2018) 282-287, DOI: https://doi.org/10.1016/j.molliq.2018.05.015.
51) ***M. Rezakazemi***, A. Dashti, H. Riasat Harami, H. Hajilarli, Inamuddin, Fouling-resistant membranes for water reuse, Environmental Chemistry Letters, 16 (3) (2018) 715-763, DOI: https://doi.org/10.1007/s10311-018-0717-8.
52) A. Dashti, M. Asghari, M. Dehghani, ***M. Rezakazemi***, AH. Mohammadi, S. Bhatia, Molecular Dynamics, Grand Canonical Monte Carlo and Expert Simulations and Modeling of Water–Acetic Acid Pervaporation Using Polyvinyl Alcohol/Tetraethyl Orthosilicates Membrane, Journal of Molecular Liquids, 265 (2018) 53-68, DOI: https://doi.org/10.1016/j.molliq.2018.05.078.
53) ***M. Rezakazemi***, A. Azarafza, A. Dashti, S. Shirazian, Development of hybrid models for prediction of gas permeation through FS/POSS/PDMS nanocomposite membranes, International Journal of Hydrogen Energy, 43, (6) (2018) 17283-17294, DOI: https://doi.org/10.1016/j.ijhydene.2018.07.124.
54) ***M. Rezakazemi***, CFD Simulation of Seawater Purification Using Direct Contact Membrane Desalination (DCMD) System, Desalination, 443 (2018) 323-332, DOI: https://doi.org/10.1016/j.desal.2017.12.048.
55) ***M. Rezakazemi***, S. Shirazian, Computational simulation of mass transfer in molecular separation using microporous polymeric membranes, Chemical Engineering and Technology 41 (10) (2018) 1975-1981, DOI: https://doi.org/10.1002/ceat.201800082.
56) ***M. Rezakazemi***, S. Shirazian, Development of a 3D hybrid intelligent-mechanistic model for simulation of multiphase chemical reactors, Chemical Engineering and Technology 41 (10) (2018) 1982-1993, DOI: https://doi.org/10.1002/ceat.201800159.
57) N. Hajilary, ***M. Rezakazemi***, CFD modeling of CO_2 capture by water-based nanofluids using hollow fiber membrane contactor, International Journal of Greenhouse Gas Control, 77 (2018) 88-95, DOI: https://doi.org/10.1016/j.ijggc.2018.08.002.
58) R. Foroutan, H. Esmaeili, M. Abbasi, ***M. Rezakazemi***, M. Mesbah, Adsorption behavior of Cu(II) and Co(II) using chemically modified marine algae, Environmental Technology, 39 (21) (2018) 2792-2800, DOI: 10.1080/09593330.2017.1365946.
59) N. Hajilary, ***M. Rezakazemi***, Ethylene Glycol Elimination in Amine Loop for More Efficient Gas Conditioning, Chemistry Central Journal 12 (2018) 120, DOI: 10.1186/s13065-018-0493-3.
60) A. Roudbari, ***M. Rezakazemi***, Hormones Removal from Municipal Wastewater Using Ultrasound, AMB Express, 8 (1) (2018) 91, DOI: 10.1186/s13568-018-0621-4.
61) ***M. Rezakazemi***, M. Maghami, T. Mohammadi, Wastewaters Treatment Containing Phenol and Ammonium Using Aerobic Submerged Membrane Bioreactor, Chemistry Central Journal, 12 (1) (2018) 79, DOI: 10.1186/s13065-018-0450-1.
62) A. Dashti, H. Riasat Harami, ***M. Rezakazemi***, S. Shirazian, Estimating CH_4 and CO_2 solubilities in ionic liquids using computational intelligence approaches, Journal of Molecular Liquids, 271 (2018) 661-669, DOI: https://doi.org/10.1016/j.molliq.2018.08.150.
63) ***M. Rezakazemi***, AB. Albadarin, GM. Walker, S. Shirazian, Quantum chemical calculations and molecular modeling for methylene blue removal from water by a lignin-chitosan blend, International Journal of Biological Macromolecules, 120 (2018) 2065-2075, DOI: https://doi.org/10.1016/j.ijbiomac.2018.09.027.
64) ***M. Rezakazemi***, TA. Kurniawan, AB. Albadarin, S. Shirazian, Molecular modeling investigation on mechanism of phenol removal from aqueous media by single- and multi-walled carbon nanotubes, Journal of Molecular Liquids, 271 (2018) 24-30, DOI: https://doi.org/10.1016/j.molliq.2018.08.132.
65) ***M. Rezakazemi***, S. Shirazian, Gas permeation prediction through polymeric membranes using compressible regular solution theory, International Journal of Hydrogen Energy, 43 (49) (2018) 22357-22364, DOI: https://doi.org/10.1016/j.ijhydene.2018.10.087.

2019

66) ***M. Rezakazemi***, S. Shirazian, Gas-Liquid phase recirculation in bubble column reactors: Development of a hybrid model based on local CFD-Adaptive Network-based Fuzzy Inference System (ANFIS), Journal of Non-Equilibrium Thermodynamics 44 (1) (2019) 29-42, DOI: https://doi.org/10.1515/jnet-2018-0028.

67) ***M. Rezakazemi***, A. Hemmati, S. Shirazian, Cellulose acetate polymeric membrane fabrication by nonsolvent induced phase separation process: determination of velocities of individual components, Journal of Non-Equilibrium Thermodynamics, 44 (1) (2019) 71-80, DOI: https://doi.org/10.1515/jnet-2018-0042.

68) M. Mesbah, E. Soroush, ***M. Rezakazemi***, Modeling Dissociation Pressure of Semi-Clathrate Hydrate Systems Containing CO_2, CH_4, N_2, and H_2S in Presence of tetra-n-butyl ammonium bromide, Journal of Non-Equilibrium Thermodynamics 44 (1) (2019) 15-28, DOI: https://doi.org/10.1515/jnet-2018-0015.

69) ***M. Rezakazemi***, S. Shirazian, Lignin-chitosan blend for methylene blue removal: adsorption modeling, Journal of Molecular Liquids, 274 (2019) 778-791, DOI: https://doi.org/10.1016/j.molliq.2018.11.043.

70) ***M. Rezakazemi,*** A. Mosavi, S. Shirazian, ANFIS pattern for molecular membranes separation optimization, Journal of Molecular Liquids, 274 (2019) 470-476, DOI: https://doi.org/10.1016/j.molliq.2018.11.017.

71) N. Azizi, ***M. Rezakazemi***, M. M. Zarei, An intelligent approach to predict gas compressibility factor using neural network model, Neural Computing and Applications, 31 (1) (2019) 55-64, DOI: 10.1007/s00521-017-2979-7.

72) ***M. Rezakazemi***, S. Shirazian, Multiscale computational modeling of organic compounds separation using microporous membranes, Desalination and Water Treatment 142 (2019) 136-139, DOI: 10.5004/dwt.2019.23502.

73) E. Soroush, M. Mesbah, N. Hajilary, ***M. Rezakazemi***, ANFIS Modeling for Prediction of CO_2 Solubility in Potassium and Sodium Based Amino Acid Salt Solutions, Journal of Environmental Chemical Engineering, 7 (1) (2019) 102925, DOI: https://doi.org/10.1016/j.jece.2019.102925.

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1) ***M. Rezakazemi***, T. Mohammadi, Synthesis of Polydimethylsiloxane [PDMS] Mixed Matrixed Membranes Comprised of Zeolite 4A Nanoparticles, Iranian Patent No. 74771, 2012.
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RESEARCH PROJECT

Funding Agency	Date	Amount	Country	Title
National Iranian Society of Elites	06/2020 Date	7,500 €	Iran	Fabrication of thin-film composite membranes with high plasticization resistance for C_3H_6/C_3H_8 and CO_2/N_2 separations
National Iranian Society of Elites	06/2020 Date	7,500 €	Iran	Mathematical Modelling and Simulation of Membrane Reactors
National Iranian Society of Elites	06/2019 06/2020	4,000 €	Iran	Experimental and mathematical modeling of 1-butanol adsorption on activated carbon
UCLouvain	08/2019	4,400 €	Belgium	Workshop on CFD simulation of membrane process using COMSOL
Fajr Jam Gas Refinery Company	12/2017 01/2018	9,000 €	Iran	Reduction of Sweeping Gas and Vapor in Flare Network
National Iranian Society of Elites	12/2015 09/2016	15,000 €	Iran	Water Desalination Using Nanoporous Graphene Membrane
Pars Special Economic Energy Zone	09/2014 03/2016	14,500 €	Iran	Polymeric membrane for syn-gas purification
Pars Special Economic Energy Zone	09/2014 03/2016	14,500 €	Iran	Polymeric membrane for gas sweetening
National Iranian Society of Elites	08/2013 12/2013	12,000 €	Iran	Development of Mass Transfer Model in Membrane Separation Processes
National Iranian Society of Elites	09/2012 09-2015	6,000 €	Iran	Fabrication of PDMS/POSS-Fumed Silica nanocomposite membrane for separation of C_3H_8 from H_2, CO_2, CH_4
Iranian Central Oil Field Company	01/2012 05/2013	15,000 €	Iran	Preparation and Characterization of Nanocomposite Membrane for Separation of LPG from Light Gases
Niroo Research Institute	05/2011 03/2012	17,000 €	Iran	Hollow Fiber Membrane Contactor for Separation of CO_2 from Power Plant Flow Gas
	Total Funding:	**126,400 €**		

SUPERVISING AND MENTORING

Postdoc: 2 **PhD: 5** **MEng: 3** **BEng: 11**

Postdoc

2020-21	Farhad Moghadam	Founded by National Iranian Society of Elites
2020-21	Mahdi Ghadiri	Founded by National Iranian Society of Elites

PhD

2018-21	Mahdi Sheikh	UPC Barcelona, Spain	Prof. Jose Luis Cortina
2018-21	Imran Khan Swati	UET Peshawar, Pakistan	Prof. Mohammad Younas
2018-21	Muhammad Ayaz	UET Peshawar, Pakistan	Prof. Mohammad Younas
2016-19	Amir Muhammad	UET Peshawar, Pakistan	Prof. Mohammad Younas
2016-19	Waheed Ur Rehman	UET Peshawar, Pakistan	Prof. Mohammad Younas