Ali Taghvaie Nakhjiri

List of Publications by Year
in descending order

59 papers	1,725 citations	159358 30 h-index	301761 39 g-index
59 all docs	59 docs citations	59 times ranked	580 citing authors

#	Article	IF	Citations
1	Effect of graphene oxide on modifying polyethersulfone membrane performance and its application in wastewater treatment. Scientific Reports, 2020, 10, 2049.	1.6	122
2	Experimental investigation and mathematical modeling of CO2 sequestration from CO2/CH4 gaseous mixture using MEA and TEA aqueous absorbents through polypropylene hollow fiber membrane contactor. Journal of Membrane Science, 2018, 565, 1-13.	4.1	70
3	Ionic liquids in pharmaceutical industry: A systematic review on applications and future perspectives. Journal of Molecular Liquids, 2022, 349, 118145.	2.3	67
4	Recovery of precious metals from industrial wastewater towards resource recovery and environmental sustainability: A critical review. Desalination, 2022, 527, 115510.	4.0	67
5	Membrane distillation technology for molecular separation: A review on the fouling, wetting and transport phenomena. Journal of Molecular Liquids, 2022, 349, 118115.	2.3	56
6	The effect of membrane pores wettability on CO2 removal from CO2/CH4 gaseous mixture using NaOH, MEA and TEA liquid absorbents in hollow fiber membrane contactor. Chinese Journal of Chemical Engineering, 2018, 26, 1845-1861.	1.7	53
7	Modeling and simulation of CO2 separation from CO2/CH4 gaseous mixture using potassium glycinate, potassium argininate and sodium hydroxide liquid absorbents in the hollow fiber membrane contactor. Journal of Environmental Chemical Engineering, 2018, 6, 1500-1511.	3.3	51
8	Computational simulation and theoretical modeling of CO2 separation using EDA, PZEA and PS absorbents inside the hollow fiber membrane contactor. Journal of Industrial and Engineering Chemistry, 2019, 78, 106-115.	2.9	41
9	Prediction of Nanofluid Temperature Inside the Cavity by Integration of Grid Partition Clustering Categorization of a Learning Structure with the Fuzzy System. ACS Omega, 2020, 5, 3571-3578.	1.6	40
10	Computational investigation on the effect of [Bmim][BF4] ionic liquid addition to MEA alkanolamine absorbent for enhancing CO2 mass transfer inside membranes. Journal of Molecular Liquids, 2020, 314, 113635.	2.3	37
11	Changes in the Number of Membership Functions for Predicting the Gas Volume Fraction in Two-Phase Flow Using Grid Partition Clustering of the ANFIS Method. ACS Omega, 2020, 5, 16284-16291.	1.6	37
12	Recent advancements in molecular separation of gases using microporous membrane systems: A comprehensive review on the applied liquid absorbents. Journal of Molecular Liquids, 2021, 337, 116439.	2.3	37
13	Computational fluid dynamics simulation of NO2 molecular sequestration from a gaseous stream using NaOH liquid absorbent through porous membrane contactors. Journal of Molecular Liquids, 2020, 313, 113584.	2.3	36
14	Mathematical modeling and numerical simulation of CO2 capture using MDEA-based nanofluids in nanostructure membranes. Chemical Engineering Research and Design, 2021, 148, 1377-1385.	2.7	36
15	Influence of non-wetting, partial wetting and complete wetting modes of operation on hydrogen sulfide removal utilizing monoethanolamine absorbent in hollow fiber membrane contactor. Sustainable Environment Research, 2018, 28, 186-196.	2.1	35
16	Efficiency evaluation of novel liquid potassium lysinate chemical solution for CO2 molecular removal inside the hollow fiber membrane contactor: Comprehensive modeling and CFD simulation. Journal of Molecular Liquids, 2020, 297, 111561.	2.3	35
17	Modification of polyethersulfone membrane using MWCNT-NH2 nanoparticles and its application in the separation of azeotropic solutions by means of pervaporation. PLoS ONE, 2020, 15, e0236529.	1.1	35
18	Developing Intelligent Algorithm as a Machine Learning Overview over the Big Data Generated by Eulerâ€“Euler Method To Simulate Bubble Column Reactor Hydrodynamics. ACS Omega, 2020, 5, 20558-20566.	1.6	35

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19	High-performance hybrid modeling chemical reactors using differential evolution based fuzzy inference system. Scientific Reports, 2020, 10, 21304.	1.6	34
20	Prediction of thermal distribution and fluid flow in the domain with multi-solid structures using Cubic-Interpolated Pseudo-Particle model. PLoS ONE, 2020, 15, e0233850.	1.1	34
21	Thermal and Flow Visualization of a Square Heat Source in a Nanofluid Material with a Cubic-Interpolated Pseudo-particle. ACS Omega, 2020, 5, 17658-17663.	1.6	34
22	Mesoporous silica nanoparticles as a versatile nanocarrier for cancer treatment: A review. Journal of Molecular Liquids, 2021, 328, 115417.	2.3	34
23	Performance and application analysis of ANFIS artificial intelligence for pressure prediction of nanofluid convective flow in a heated pipe. Scientific Reports, 2021, 11, 902.	1.6	34
24	ANFIS grid partition framework with difference between two sigmoidal membership functions structure for validation of nanofluid flow. Scientific Reports, 2020, 10, 15395.	1.6	34
25	Influence of number of membership functions on prediction of membrane systems using adaptive network based fuzzy inference system (ANFIS). Scientific Reports, 2020, 10, 16110.	1.6	33
26	Prediction of turbulence eddy dissipation of water flow in a heated metal foam tube. Scientific Reports, 2020, 10, 19280.	1.6	33
27	Pattern recognition of the fluid flow in a 3D domain by combination of Lattice Boltzmann and ANFIS methods. Scientific Reports, 2020, 10, 15908.	1.6	32
28	Modelling tyramine extraction from wastewater using a non-dispersive solvent extraction process. Environmental Science and Pollution Research, 2020, 27, 39068-39076.	2.7	32
29	Evaluation of potassium glycinate, potassium lysinate, potassium sarcosinate and potassium threonate solutions in CO2 capture using membranes. Arabian Journal of Chemistry, 2021, 14, 102979.	2.3	32
30	CFD Analysis of CO2 Sequestration Applying Different Absorbents Inside the Microporous PVDF Hollow Fiber Membrane Contactor. Periodica Polytechnica: Chemical Engineering, 2019, 64, 135-145.	0.5	32
31	Functional input and membership characteristics in the accuracy of machine learning approach for estimation of multiphase flow. Scientific Reports, 2020, 10, 17793.	1.6	29
32	Mass transfer modeling absorption using nanofluids in porous polymeric membranes. Journal of Molecular Liquids, 2020, 318, 114115.	2.3	29
33	Computational Modeling of Transport in Porous Media Using an Adaptive Network-Based Fuzzy Inference System. ACS Omega, 2020, 5, 30826-30835.	1.6	28
34	Theoretical investigations on the effect of absorbent type on carbon dioxide capture in hollow-fiber membrane contactors. PLoS ONE, 2020, 15, e0236367.	1.1	27
35	A state-of-the-art review on the application of various pharmaceutical nanoparticles as a promising technology in cancer treatment. Arabian Journal of Chemistry, 2021, 14, 103352.	2.3	27
36	Numerical simulation of CO2 / H2S simultaneous removal from natural gas using potassium carbonate aqueous solution in hollow fiber membrane contactor. Journal of Environmental Chemical Engineering, 2020, 8, 104130.	3.3	24

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37	Computational study on SO2 molecular separation applying novel EMISE ionic liquid and DMA aromatic amine solution inside microporous membranes. Journal of Molecular Liquids, 2020, 313, 113531.	2.3	21
38	Influence of machine learning membership functions and degree of membership function on each input parameter for simulation of reactors. Scientific Reports, 2021, 11, 1891.	1.6	19
39	Thermal prediction of turbulent forced convection of nanofluid using computational fluid dynamics coupled genetic algorithm with fuzzy interface system. Scientific Reports, 2021, 11, 1308.	1.6	18
40	Intensification of CO2 absorption using MDEA-based nanofluid in a hollow fibre membrane contactor. Scientific Reports, 2021, 11, 2649.	1.6	17
41	Investigation on performance of particle swarm optimization (PSO) algorithm based fuzzy inference system (PSOFIS) in a combination of CFD modeling for prediction of fluid flow. Scientific Reports, 2021, 11, 1505.	1.6	17
42	Numerical investigation of ibuprofen removal from pharmaceutical wastewater using adsorption process. Scientific Reports, 2021, 11, 24478.	1.6	16
43	Prediction of gas velocity in two-phase flow using developed fuzzy logic system with differential evolution algorithm. Scientific Reports, 2021, 11, 2380.	1.6	15
44	Prediction of Nanofluid Characteristics and Flow Pattern on Artificial Differential Evolution Learning Nodes and Fuzzy Framework. ACS Omega, 2020, 5, 22091-22098.	1.6	15
45	State-of-the-Art Review on the Application of Membrane Bioreactors for Molecular Micro-Contaminant Removal from Aquatic Environment. Membranes, 2022, 12, 429.	1.4	14
46	Evaluation of product of two sigmoidal membership functions (psigmf) as an ANFIS membership function for prediction of nanofluid temperature. Scientific Reports, 2020, 10, 22337.	1.6	13
47	Membrane desalination for water treatment: recent developments, techno-economic evaluation and innovative approaches toward water sustainability. European Physical Journal Plus, 2022, 137, .	1.2	13
48	Molecular investigation into the effect of carbon nanotubes interaction with CO2 in molecular separation using microporous polymeric membranes. Scientific Reports, 2020, 10, 13285.	1.6	12
49	Mathematical modeling and simulation of molecular mass transfer across blood brain barrier in brain capillary. Journal of Molecular Liquids, 2020, 310, 113254.	2.3	12
50	Time-dependent numerical investigation of 3-hydroxypropionic acid extraction using a microporous membrane contactor. European Physical Journal Plus, 2022, 137, .	1.2	12
51	Liquid temperature prediction in bubbly flow using ant colony optimization algorithm in the fuzzy inference system as a trainer. Scientific Reports, 2020, 10, 21884.	1.6	11
52	Mechanistic modeling and numerical simulation of axial flow catalytic reactor for naphtha reforming unit. PLoS ONE, 2020, 15, e0242343.	1.1	9
53	Computational Fluid Dynamic Modeling and Simulation of Hydrocracking of Vacuum Gas Oil in a Fixed-Bed Reactor. ACS Omega, 2020, 5, 16595-16601.	1.6	8
54	Molecular separation of ibuprofen and 4-isobutylacetophenone using octanol organic solution by porous polymeric membranes. PLoS ONE, 2020, 15, e0237271.	1.1	7

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55	Computational modeling of drug separation from aqueous solutions using octanol organic solution in membranes. Scientific Reports, 2020, 10, 19133.	1.6	6
56	gbell Learning function along with Fuzzy Mechanism in Prediction of Two-Phase Flow. ACS Omega, 2020, 5, 25882-25890.	1.6	6
57	Ability of neural network cells in learning teacher motivation scale and prediction of motivation with fuzzy logic system. Scientific Reports, 2021, 11, 9721.	1.6	5
58	Simulation of liquid flow with a combination artificial intelligence flow field and Adamsâ€“Bashforth method. Scientific Reports, 2020, 10, 16719.	1.6	4
59	Parametric numerical study and optimization of mass transfer and bubble size distribution in a gas-liquid stirred tank bioreactor equipped with Rushton turbine using computational fluid dynamics. International Journal of Chemical Reactor Engineering, 2021, 19, 1115-1131.	0.6	3