Mashallah Rezakazemi

List of Publications by Year
in descending order

195 papers	10,587 citations	28190 55 h-index	40881 93 g-index
209 all docs	209 docs citations	209 times ranked	6812 citing authors

#	Article	IF	Citations
1	Removal of Heavy Metals from Industrial Wastewaters: A Review. ChemBioEng Reviews, 2017, 4, 37-59.	2.6	739
2	State-of-the-art membrane based CO2 separation using mixed matrix membranes (MMMs): An overview on current status and future directions. Progress in Polymer Science, 2014, 39, 817-861.	11.8	717
3	Superior chemical stability of UiO-66 metal-organic frameworks (MOFs) for selective dye adsorption. Chemical Engineering Journal, 2020, 399, 125346.	6.6	305
4	Thermally stable polymers for advanced high-performance gas separation membranes. Progress in Energy and Combustion Science, 2018, 66, 1-41.	15.8	252
5	Recent progress and remaining challenges in post-combustion CO2 capture using metal-organic frameworks (MOFs). Progress in Energy and Combustion Science, 2020, 80, 100849.	15.8	235
6	Textile waste, dyes/inorganic salts separation of cerium oxide-loaded loose nanofiltration polyethersulfone membranes. Chemical Engineering Journal, 2020, 385, 123787.	6.6	232
7	CFD simulation of natural gas sweetening in a gasâ€“liquid hollow-fiber membrane contactor. Chemical Engineering Journal, 2011, 168, 1217-1226.	6.6	180
8	Ethylenediamine-functionalized Zr-based MOF for efficient removal of heavy metal ions from water. Chemosphere, 2021, 264, 128466.	4.2	179
9	H2-selective mixed matrix membranes modeling using ANFIS, PSO-ANFIS, GA-ANFIS. International Journal of Hydrogen Energy, 2017, 42, 15211-15225.	3.8	175
10	UiO-66 metalâ€“organic frameworks in water treatment: A critical review. Progress in Materials Science, 2022, 125, 100904.	16.0	161
11	Process intensification. Reviews in Chemical Engineering, 2018, 34, 135-200.	2.3	156
12	Hydrogen separation and purification using crosslinkable PDMS/zeolite A nanoparticles mixed matrix membranes. International Journal of Hydrogen Energy, 2012, 37, 14576-14589.	3.8	149
13	Simulation of ammonia removal from industrial wastewater streams by means of a hollow-fiber membrane contactor. Desalination, 2012, 285, 383-392.	4.0	149
14	Membrane filtration of wastewater from gas and oil production. Environmental Chemistry Letters, 2018, 16, 367-388.	8.3	129
15	Hybrid systems: Combining membrane and absorption technologies leads to more efficient acid gases (CO 2 and H 2 S) removal from natural gas. Journal of CO2 Utilization, 2017, 18, 362-369.	3.3	125
16	Application of ZnO nanostructures in ceramic and polymeric membranes for water and wastewater technologies: A review. Chemical Engineering Journal, 2020, 391, 123475.	6.6	125
17	Synergistic interactions between POSS and fumed silica and their effect on the properties of crosslinked PDMS nanocomposite membranes. RSC Advances, 2015, 5, 82460-82470.	1.7	118
18	Current status and challenges in the heterogeneous catalysis for biodiesel production. Renewable and Sustainable Energy Reviews, 2022, 157, 112012.	8.2	114

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19	CFD simulation of PEM fuel cell performance: Effect of straight and serpentine flow fields. Mathematical and Computer Modelling, 2012, 55, 1540-1557.	2.0	112
20	CFD simulation of water removal from water/ethylene glycol mixtures by pervaporation. Chemical Engineering Journal, 2011, 168, 60-67.	6.6	109
21	CO2 absorption enhancement by water-based nanofluids of CNT and SiO2 using hollow-fiber membrane contactor. Separation and Purification Technology, 2019, 210, 920-926.	3.9	105
22	Simulation and determination of optimum conditions of pervaporative dehydration of isopropanol process using synthesized PVAâ€“APTEOS/TEOS nanocomposite membranes by means of expert systems. Journal of Membrane Science, 2011, 379, 224-232.	4.1	101
23	ANFIS pattern for molecular membranes separation optimization. Journal of Molecular Liquids, 2019, 274, 470-476.	2.3	100
24	Magnetic Fe3O4@UiO-66 nanocomposite for rapid adsorption of organic dyes from aqueous solution. Journal of Molecular Liquids, 2021, 322, 114910.	2.3	97
25	Sorption properties of hydrogen-selective PDMS/zeolite 4A mixed matrix membrane. International Journal of Hydrogen Energy, 2012, 37, 17275-17284.	3.8	96
26	Gas permeation through H2-selective mixed matrix membranes: Experimental and neural network modeling. International Journal of Hydrogen Energy, 2013, 38, 1128-1135.	3.8	94
27	Biofuel types and membrane separation. Environmental Chemistry Letters, 2019, 17, 1-18.	8.3	94
28	Applicability of BaTiO3/graphene oxide (GO) composite for enhanced photodegradation of methylene blue (MB) in synthetic wastewater under UVâ€“vis irradiation. Environmental Pollution, 2019, 255, 113182.	3.7	92
29	Modeling of a CO2-piperazine-membrane absorption system. Chemical Engineering Research and Design, 2018, 131, 375-384.	2.7	88
30	Computational fluid dynamics simulation of transport phenomena in ceramic membranes for SO2 separation. Mathematical and Computer Modelling, 2012, 56, 278-286.	2.0	83
31	Hydrodynamics and mass transfer simulation of wastewater treatment in membrane reactors. Desalination, 2012, 286, 290-295.	4.0	83
32	CFD simulation of seawater purification using direct contact membrane desalination (DCMD) system. Desalination, 2018, 443, 323-332.	4.0	82
33	CFD modeling of CO2 capture by water-based nanofluids using hollow fiber membrane contactor. International Journal of Greenhouse Gas Control, 2018, 77, 88-95.	2.3	81
34	Separation of CO2 by single and mixed aqueous amine solvents in membrane contactors: fluid flow and mass transfer modeling. Engineering With Computers, 2012, 28, 189-198.	3.5	80
35	Fouling-resistant membranes for water reuse. Environmental Chemistry Letters, 2018, 16, 715-763.	8.3	80
36	Pervaporation study of ethylene glycol dehydration through synthesized (PVAâ€“4A)/polypropylene mixed matrix composite membranes. Polymer Engineering and Science, 2013, 53, 1487-1493.	1.5	78

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37	Preparation of novel cross-linked graphene oxide membrane for desalination applications using (EDC) Tj ETQq1 1 0.784314 rgBT /Ove	4.0	78
38	Lignin-chitosan blend for methylene blue removal: Adsorption modeling. Journal of Molecular Liquids, 2019, 274, 778-791.	2.3	78
39	Adsorption behavior of Cu(II) and Co(II) using chemically modified marine algae. Environmental Technology (United Kingdom), 2018, 39, 2792-2800.	1.2	77
40	Health risk assessment of potentially toxic elements intake via food crops consumption: Monte Carlo simulation-based probabilistic and heavy metal pollution index. Environmental Science and Pollution Research, 2021, 28, 1479-1490.	2.7	77
41	Simultaneous detection and removal of fluoride from water using smart metal-organic framework-based adsorbents. Coordination Chemistry Reviews, 2021, 445, 214037.	9.5	76
42	Coordination chemistry of metalâ€“organic frameworks: Detection, adsorption, and photodegradation of tetracycline antibiotics and beyond. Coordination Chemistry Reviews, 2022, 464, 214562.	9.5	76
43	Numerical modeling and optimization of wastewater treatment using porous polymeric membranes. Polymer Engineering and Science, 2013, 53, 1272-1278.	1.5	75
44	Simulation of CO 2 absorption by solution of ammonium ionic liquid in hollow-fiber contactors. Chemical Engineering and Processing: Process Intensification, 2016, 108, 27-34.	1.8	75
45	Accurate prediction of miscibility of CO2 and supercritical CO2 in ionic liquids using machine learning. Journal of CO2 Utilization, 2018, 25, 99-107.	3.3	74
46	Polyurethane-SAPO-34 mixed matrix membrane for CO2/CH4 and CO2/N2 separation. Chinese Journal of Chemical Engineering, 2019, 27, 322-334.	1.7	74
47	Gas sorption in H2-selective mixed matrix membranes: Experimental and neural network modeling. International Journal of Hydrogen Energy, 2013, 38, 14035-14041.	3.8	72
48	Synthesis and gas transport properties of crosslinked poly(dimethylsiloxane) nanocomposite membranes using octatrimethylsiloxy POSS nanoparticles. Journal of Natural Gas Science and Engineering, 2016, 30, 10-18.	2.1	72
49	Performance of PVA/NaA Mixed Matrix Membrane for Removal of Water from Ethylene Glycol Solutions by Pervaporation. Chemical Engineering Communications, 2015, 202, 316-321.	1.5	71
50	Molecular dynamics simulation of novel diamino-functionalized hollow mesosilica spheres for adsorption of dyes from synthetic wastewater. Journal of Molecular Liquids, 2021, 322, 114812.	2.3	65
51	Accurate prediction of solubility of gases within H 2 -selective nanocomposite membranes using committee machine intelligent system. International Journal of Hydrogen Energy, 2018, 43, 6614-6624.	3.8	63
52	Development of a mass transfer model for simulation of sulfur dioxide removal in ceramic membrane contactors. Asia-Pacific Journal of Chemical Engineering, 2012, 7, 828-834.	0.8	62
53	Estimating CH4 and CO2 solubilities in ionic liquids using computational intelligence approaches. Journal of Molecular Liquids, 2018, 271, 661-669.	2.3	60
54	Aluminum-based metal-organic frameworks for adsorptive removal of anti-cancer (methotrexate) drug from aqueous solutions. Journal of Environmental Management, 2021, 277, 111448.	3.8	59

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55	ANFIS modeling for prediction of CO2 solubility in potassium and sodium based amino acid Salt solutions. Journal of Environmental Chemical Engineering, 2019, 7, 102925.	3.3	57
56	Resource recovery from landfill leachate: An experimental investigation and perspectives. Chemosphere, 2021, 274, 129986.	4.2	57
57	Zeolitic imidazolate framework membranes for gas and water purification. Environmental Chemistry Letters, 2020, 18, 1-52.	8.3	56
58	Transient computational fluid dynamics modeling of pervaporation separation of aromatic/aliphatic hydrocarbon mixtures using polymer composite membrane. Polymer Engineering and Science, 2013, 53, 1494-1501.	1.5	55
59	Modeling pre-combustion CO2 capture with tubular membrane contactor using ionic liquids at elevated temperatures. Separation and Purification Technology, 2020, 241, 116677.	3.9	55
60	Implementation of the Finite Element Method for Simulation of Mass Transfer in Membrane Contactors. Chemical Engineering and Technology, 2012, 35, 1077-1084.	0.9	54
61	Comparative study of conventional and unconventional designs of cathode flow fields in PEM fuel cell. Renewable and Sustainable Energy Reviews, 2019, 116, 109420.	8.2	54
62	Impact of scale, activation solvents, and aged conditions on gas adsorption properties of UiO-66. Journal of Environmental Management, 2020, 274, 111155.	3.8	53
63	Ternary gas permeation through synthesized pdms membranes: Experimental and CFD simulation basedon sorption-dependent system using neural network model. Polymer Engineering and Science, 2014, 54, 215-226.	1.5	52
64	Prediction of fluid pattern in a shear flow on intelligent neural nodes using ANFIS and LBM. Neural Computing and Applications, 2020, 32, 13313-13321.	3.2	52
65	Development of a least squares support vector machine model for prediction of natural gas hydrate formation temperature. Chinese Journal of Chemical Engineering, 2017, 25, 1238-1248.	1.7	48
66	A review on recent advances in hollow spheres for hydrogen storage. International Journal of Hydrogen Energy, 2020, 45, 17583-17604.	3.8	47
67	Fe3O4@PAA@UiO-66-NH2 magnetic nanocomposite for selective adsorption of Quercetin. Chemosphere, 2021, 275, 130087.	4.2	47
68	Evaluation of socio-economic factors on CO 2 emissions in Iran: Factorial design and multivariable methods. Journal of Cleaner Production, 2018, 189, 108-115.	4.6	46
69	Development of hybrid models for prediction of gas permeation through FS/POSS/PDMS nanocomposite membranes. International Journal of Hydrogen Energy, 2018, 43, 17283-17294.	3.8	46
70	Liquidâ€phase chemical reactors: Development of 3D hybrid model based on CFDâ€adaptive networkâ€based fuzzy inference system. Canadian Journal of Chemical Engineering, 2019, 97, 1676-1684.	0.9	46
71	Synergistic properties of molybdenum disulfide (MoS2) with electro-active materials for high-performance supercapacitors. International Journal of Hydrogen Energy, 2019, 44, 17470-17492.	3.8	45
72	Pomegranate juice concentration using osmotic distillation with membrane contactor. Separation and Purification Technology, 2019, 224, 481-489.	3.9	45

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73	Next generation polymers of intrinsic microporosity with tunable moieties for ultrahigh permeation and precise molecular CO2 separation. Progress in Energy and Combustion Science, 2021, 84, 100903.	15.8	43
74	A new insight into catalytic ozonation of sulfasalazine antibiotic by plasma-treated limonite nanostructures: Experimental, modeling and mechanism. Chemical Engineering Journal, 2022, 428, 131230.	6.6	43
75	Adsorption performance of UiO-66 towards organic dyes: Effect of activation conditions. Journal of Molecular Liquids, 2021, 321, 114487.	2.3	42
76	A Comprehensive Review on Recent Advances in Two-Dimensional (2D) Hexagonal Boron Nitride. ACS Applied Electronic Materials, 2021, 3, 5165-5187.	2.0	42
77	In-grown flower like Al-Li/Th-LDH@CNT nanocomposite for enhanced photocatalytic degradation of MG dye and selective adsorption of Cr (VI). Journal of Environmental Chemical Engineering, 2022, 10, 106848.	3.3	42
78	Molecular dynamics, grand canonical Monte Carlo and expert simulations and modeling of waterâ€“acetic acid pervaporation using polyvinyl alcohol/tetraethyl orthosilicates membrane. Journal of Molecular Liquids, 2018, 265, 53-68.	2.3	41
79	High Loaded Synthetic Hazardous Wastewater Treatment Using Lab-Scale Submerged Ceramic Membrane Bioreactor. Periodica Polytechnica: Chemical Engineering, 2018, 62, 299-304.	0.5	41
80	Synthesis, molecular dynamics simulation and adsorption study of different pollutants on functionalized mesosilica. Scientific Reports, 2021, 11, 1967.	1.6	41
81	A robust predictive tool for estimating CO 2 solubility in potassium based amino acid salt solutions. Chinese Journal of Chemical Engineering, 2018, 26, 740-746.	1.7	40
82	An intelligent approach to predict gas compressibility factor using neural network model. Neural Computing and Applications, 2019, 31, 55-64.	3.2	39
83	Preparation of COOH-KCC-1/polyamide 6 composite by in situ ring-opening polymerization: synthesis, characterization, and Cd(II) adsorption study. Journal of Environmental Chemical Engineering, 2021, 9, 104683.	3.3	39
84	Sustainable MXenes-based membranes for highly energy-efficient separations. Renewable and Sustainable Energy Reviews, 2021, 143, 110878.	8.2	39
85	CFD simulation of copper(II) extraction with TFA in non-dispersive hollow fiber membrane contactors. Environmental Science and Pollution Research, 2018, 25, 12053-12063.	2.7	38
86	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
87	Development of a Group Contribution Method Based on UNIFAC Groups for the Estimation of Vapor Pressures of Pure Hydrocarbon Compounds. Chemical Engineering and Technology, 2013, 36, 483-491.	0.9	36
88	Quasi-dynamic modeling of dispersion-free extraction of aroma compounds using hollow fiber membrane contactor. Chemical Engineering Research and Design, 2017, 127, 52-61.	2.7	36
89	Computational fluid dynamic modeling of water desalination using low-energy continuous direct contact membrane distillation process. Applied Thermal Engineering, 2019, 163, 114391.	3.0	36
90	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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91	High surface area acid-treated biochar from pomegranate husk for 2,4-dichlorophenol adsorption from aqueous solution. Chemosphere, 2022, 295, 133850.	4.2	35
92	Simulation of Nonporous Polymeric Membranes Using CFD for Bioethanol Purification. Macromolecular Theory and Simulations, 2018, 27, 1700084.	0.6	34
93	High-performance hybrid modeling chemical reactors using differential evolution based fuzzy inference system. Scientific Reports, 2020, 10, 21304.	1.6	34
94	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
95	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
96	CO2/CH4 separation by mixed-matrix membranes holding functionalized NH2-MIL-101(Al) nanoparticles: Effect of amino-silane functionalization. Chemical Engineering Research and Design, 2021, 176, 49-59.	2.7	34
97	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
98	Green hydrogen storage and delivery: Utilizing highly active homogeneous and heterogeneous catalysts for formic acid dehydrogenation. International Journal of Hydrogen Energy, 2022, 47, 11694-11724.	3.8	34
99	Prediction of turbulence eddy dissipation of water flow in a heated metal foam tube. Scientific Reports, 2020, 10, 19280.	1.6	33
100	Protic/aprotic ionic liquids for effective CO2 separation using supported ionic liquid membrane. Chemosphere, 2021, 267, 128894.	4.2	33
101	Application of neural networks in membrane separation. Reviews in Chemical Engineering, 2020, 36, 265-310.	2.3	32
102	Post-combustion CO2 capture with sweep gas in thin film composite (TFC) hollow fiber membrane (HFM) contactor. Journal of CO2 Utilization, 2020, 40, 101266.	3.3	32
103	Mass transfer modelling of hollow fiber membrane contactor for apple juice concentration using osmotic membrane distillation. Separation and Purification Technology, 2020, 250, 117209.	3.9	31
104	Rigorous non-isothermal modeling approach for mass and energy transport during CO2 absorption into aqueous solution of amino acid ionic liquids in hollow fiber membrane contactors. Separation and Purification Technology, 2021, 254, 117644.	3.9	31
105	Environmental management of industrial decarbonization with focus on chemical sectors: A review. Journal of Environmental Management, 2022, 302, 114055.	3.8	31
106	Efficient removal of heavy metal ions from aqueous media by unmodified and modified nanodiamonds. Journal of Environmental Management, 2022, 316, 115214.	3.8	31
107	Methods for the Preparation of Organicâ€“Inorganic Nanocomposite Polymer Electrolyte Membranes for Fuel Cells. , 2017, , 311-325.		30
108	Predictive construction of phase diagram of ternary solutions containing polymer/solvent/nonsolvent using modified Flory-Huggins model. Journal of Molecular Liquids, 2018, 263, 282-287.	2.3	30

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109	A comprehensive review of microbial desalination cells for present and future challenges. Desalination, 2022, 535, 115808.	4.0	30
110	Enhanced Water Flux by Fabrication of Polysulfone/Alumina Nanocomposite Membrane for Copper(II) Removal. Macromolecular Research, 2019, 27, 565-571.	1.0	29
111	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
112	Fluid Velocity Prediction Inside Bubble Column Reactor Using ANFIS Algorithm Based on CFD Input Data. Arabian Journal for Science and Engineering, 2020, 45, 7487-7498.	1.7	29
113	Hormones removal from municipal wastewater using ultrasound. AMB Express, 2018, 8, 91.	1.4	27
114	Sorption in mixed matrix membranes: Experimental and molecular dynamic simulation and Grand Canonical Monte Carlo method. Journal of Molecular Liquids, 2019, 282, 566-576.	2.3	27
115	Simulation of a Bubble-Column Reactor by Three-Dimensional CFD: Multidimension- and Function-Adaptive Network-Based Fuzzy Inference System. International Journal of Fuzzy Systems, 2020, 22, 477-490.	2.3	27
116	Producing water from saline streams using membrane distillation: Modeling and optimization using CFD and design expert. International Journal of Energy Research, 2020, 44, 8841-8853.	2.2	26
117	Functionalized pollen-like mesoporous silica. Microporous and Mesoporous Materials, 2021, 310, 110531.	2.2	26
118	Quantum chemical calculations and molecular modeling for methylene blue removal from water by a lignin-chitosan blend. International Journal of Biological Macromolecules, 2018, 120, 2065-2075.	3.6	25
119	Mass transfer through PDMS/zeolite 4A MMMs for hydrogen separation: Molecular dynamics and grand canonical Monte Carlo simulations. International Communications in Heat and Mass Transfer, 2019, 108, 104259.	2.9	25
120	Synthetic PDMS composite membranes for pervaporation dehydration of ethanol. Desalination and Water Treatment, 0, , 1-8.	1.0	24
121	Molecular modeling investigation on mechanism of phenol removal from aqueous media by single- and multi-walled carbon nanotubes. Journal of Molecular Liquids, 2018, 271, 24-30.	2.3	24
122	Artificial intelligence modeling to predict transmembrane pressure in anaerobic membrane bioreactor-sequencing batch reactor during biohydrogen production. Journal of Environmental Management, 2021, 292, 112759.	3.8	22
123	Liquidâ€“Liquid membrane contactors incorporating surface skin asymmetric hollow fibres of poly(4-methyl-1-pentene) for ammonium recovery as liquid fertilisers. Separation and Purification Technology, 2022, 283, 120212.	3.9	22
124	Engineered graphene-based mixed matrix membranes to boost CO2 separation performance: Latest developments and future prospects. Renewable and Sustainable Energy Reviews, 2022, 160, 112294.	8.2	22
125	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
126	Juglone extraction from walnut (Juglans regia L.) green husk by supercritical CO2: Process optimization using Taguchi method. Journal of Environmental Chemical Engineering, 2020, 8, 103776.	3.3	21

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127	Performance of graphene-zinc oxide nanocomposite coated-glassy carbon electrode in the sensitive determination of para-nitrophenol. Scientific Reports, 2022, 12, 117.	1.6	21
128	Biopolymer-based membranes from polysaccharides for CO2 separation: a review. Environmental Chemistry Letters, 2022, 20, 1083-1128.	8.3	21
129	Aluminum Oxide Nanoparticles for Highly Efficient Asphaltene Separation from Crude Oil Using Ceramic Membrane Technology. Oil and Gas Science and Technology, 2017, 72, 34.	1.4	20
130	Organic solvent removal by pervaporation membrane technology: experimental and simulation. Environmental Science and Pollution Research, 2018, 25, 19818-19825.	2.7	20
131	Water Desalination Using Solar Thermal Collectors Enhanced by Nanofluids. Chemical Engineering and Technology, 2022, 45, 15-25.	0.9	20
132	A review on hollow fiber membrane module towards high separation efficiency: Process modeling in fouling perspective. Chinese Chemical Letters, 2022, 33, 3594-3602.	4.8	20
133	Thermocatalytic Hydrogen Production Through Decomposition of Methane-A Review. Frontiers in Chemistry, 2021, 9, 736801.	1.8	20
134	Wastewaters treatment containing phenol and ammonium using aerobic submerged membrane bioreactor. Chemistry Central Journal, 2018, 12, 79.	2.6	19
135	Fundamentals and Measurement Techniques for Gas Transport in Polymers. , 2018, , 391-423.		19
136	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
137	2.29 Desulfurization Materials. , 2018, , 944-979.		18
138	Electrospun hierarchical fibrous composite membrane for pomegranate juice concentration using osmotic membrane distillation. Journal of Environmental Chemical Engineering, 2020, 8, 104475.	3.3	18
139	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
140	CO2 emission reduction by zero flaring startup in gas refinery. Materials Science for Energy Technologies, 2020, 3, 218-224.	1.0	17
141	Intensification of CO2 absorption using MDEA-based nanofluid in a hollow fibre membrane contactor. Scientific Reports, 2021, 11, 2649.	1.6	17
142	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
143	COMPUTATIONAL FLUID DYNAMICS SIMULATION OF MOVING-BED NANOCATALYTIC CRACKING PROCESS FOR THE LIGHTENING OF HEAVY CRUDE OIL. Journal of Porous Media, 2018, 21, 539-553.	1.0	17
144	Heat recovery steam generator: Constructal thermoeconomic optimization. Applied Thermal Engineering, 2019, 148, 747-753.	3.0	16

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145	Cost-effective composite prepared from sewage sludge waste and cement kiln dust as permeable reactive barrier to remediate simulated groundwater polluted with tetracycline. Journal of Environmental Chemical Engineering, 2021, 9, 105194.	3.3	16
146	Development of CFD model for membrane-based energy recovery ventilators. Chemical Engineering Research and Design, 2019, 145, 226-234.	2.7	15
147	Modeling Dissociation Pressure of Semi-Clathrate Hydrate Systems Containing CO₂, CH₄, N₂, and H₂S in the Presence of Tetra-n-butyl Ammonium Bromide. Journal of Non-Equilibrium Thermodynamics, 2019, 44, 15-28.	2.4	15
148	Development of a 3D Hybrid Intelligentâ€Mechanistic Model for Simulation of Multiphase Chemical Reactors. Chemical Engineering and Technology, 2018, 41, 1982-1993.	0.9	14
149	Separation via Pervaporation Techniques Through Polymeric Membranes. , 2018, , 243-263.		14
150	Gas-Liquid Phase Recirculation in Bubble Column Reactors: Development of a Hybrid Model Based on Local CFD â€“ Adaptive Neuro-Fuzzy Inference System (ANFIS). Journal of Non-Equilibrium Thermodynamics, 2019, 44, 29-42.	2.4	14
151	Microstructural modifications of polyethylene glycol powder binder in the processing of sintered alpha alumina under different conditions of preparation. Materials Science for Energy Technologies, 2019, 2, 89-95.	1.0	13
152	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
153	Assessment of heavy metals accumulation in agricultural soil, vegetables and associated health risks. PLoS ONE, 2022, 17, e0267719.	1.1	13
154	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
155	Mixed Matrix Membranes for Sustainable Electrical Energyâ€Saving Applications. ChemBioEng Reviews, 2021, 8, 27-43.	2.6	12
156	Non-dispersive solvent absorption of post-combustion CO2 in membrane contactors using ionic liquids. Journal of Molecular Liquids, 2022, 351, 118566.	2.3	12
157	Fabrication of titanium dioxide nanomaterial for implantable highly flexible composite bioelectrode for biosensing applications. Chemosphere, 2021, 273, 129680.	4.2	11
158	Low dimensional Bi2Se3 NPs/reduced graphene oxide nanocomposite for simultaneous detection of L-Dopa and acetaminophen in presence of ascorbic acid in biological samplesÂand pharmaceuticals. Journal of Nanostructure in Chemistry, 2022, 12, 513-528.	5.3	11
159	Anaerobic membrane bioreactor for the production of bioH2: Electron flow, fouling modeling and kinetic study. Chemical Engineering Journal, 2021, 426, 130716.	6.6	11
160	Simulation of Methanol Production Process and Determination of Optimum Conditions. Oriental Journal of Chemistry, 2012, 28, 145-151.	0.1	11
161	Organic-Inorganic Hybrid Materials and Their Applications. Polymers and Polymeric Composites, 2019, , 1135-1156.	0.6	10
162	Hydrogen separation from synthesis gas using silica membrane: CFD simulation. International Journal of Hydrogen Energy, 2020, 45, 19381-19390.	3.8	10

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163	Predicting Air Superficial Velocity of Two-Phase Reactors Using ANFIS and CFD. ACS Omega, 2021, 6, 239-252.	1.6	10
164	Antibacterial properties of MXene-based nanomaterials: A review. Materials Express, 2022, 12, 34-48.	0.2	10
165	Gas permeation prediction through polymeric membranes using compressible regular solution theory. International Journal of Hydrogen Energy, 2018, 43, 22357-22364.	3.8	9
166	H2S removal from sour water in a combination system of trickling biofilter and biofilter. Environmental Research, 2020, 184, 109380.	3.7	9
167	Numerical investigation of ethylbenzene dehydrogenation and nitrobenzene hydrogenation in a membrane reactor: Effect of operating conditions. International Journal of Hydrogen Energy, 2021, 46, 28641-28656.	3.8	9
168	Multi-ionic electrolytes and E.coli removal from wastewater using chitosan-based in-situ mediated thin film composite nanofiltration membrane. Journal of Environmental Management, 2021, 294, 112996.	3.8	9
169	Mechanistic modeling and numerical simulation of axial flow catalytic reactor for naphtha reforming unit. PLoS ONE, 2020, 15, e0242343.	1.1	9
170	Computational Simulation of Mass Transfer in Molecular Separation Using Microporous Polymeric Membranes. Chemical Engineering and Technology, 2018, 41, 1975-1981.	0.9	8
171	Prediction bubble point pressure for CO2/CH4 gas mixtures in ionic liquids using intelligent approaches. Emergent Materials, 2021, 4, 565-578.	3.2	8
172	Modeling of CaCl2 removal by positively charged polysulfone-based nanofiltration membrane using artificial neural network and genetic programming. , 0, 111, 57-67.		8
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