Alireza Baghban

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

125
papers2,483
citations29
h-index43
g-index126
ext. papers2,919
ext. citations3.1
avg, IF6.06
L-index

#	Paper	IF	Citations
125	An insight into tetracycline photocatalytic degradation by MOFs using the artificial intelligence technique <i>Scientific Reports</i> , 2022 , 12, 6615	4.9	1
124	On the evaluation of hydrogen evolution reaction performance of metal-nitrogen-doped carbon electrocatalysts using machine learning technique. <i>Scientific Reports</i> , 2021 , 11, 21911	4.9	1
123	Oxidation kinetics of water contaminants: New insights from artificial intelligence. <i>Environmental Progress and Sustainable Energy</i> , 2021 , 40,	2.5	3
122	Insight into the Estimation of Equilibrium CO2 Absorption by Deep Eutectic Solvents using Computational Approaches. <i>Separation Science and Technology</i> , 2021 , 56, 2351-2368	2.5	5
121	Carbon dioxide as a main source of air pollution: Prospective and current trends to control 2021 , 623-6	588	
120	Insights into the estimation of capacitance for carbon-based supercapacitors <i>RSC Advances</i> , 2021 , 11, 5479-5486	3.7	9
119	Electrocatalytic hydrogen evolution on the noble metal-free MoS/carbon nanotube heterostructure: a theoretical study. <i>Scientific Reports</i> , 2021 , 11, 3958	4.9	6
118	Towards estimation of CO adsorption on highly porous MOF-based adsorbents using gaussian process regression approach. <i>Scientific Reports</i> , 2021 , 11, 15710	4.9	5
117	Modeling of CO2 absorption capabilities of amino acid solutions using a computational scheme. <i>Environmental Progress and Sustainable Energy</i> , 2020 , 39, e13430	2.5	4
116	Evolving LSSVM and ELM models to predict solubility of non-hydrocarbon gases in aqueous electrolyte systems. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020 , 164, 107999	4.6	10
115	Evaluation of electrical efficiency of photovoltaic thermal solar collector. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020 , 14, 545-565	4.5	42
114	Bandgaps of noble and transition metal/ZIF-8 electro/catalysts: a computational study <i>RSC Advances</i> , 2020 , 10, 22929-22938	3.7	6
113	A neural computing strategy to estimate dew-point pressure of gas condensate reservoirs. <i>Petroleum Science and Technology</i> , 2020 , 38, 706-712	1.4	9
112	Estimating biofuel density via a soft computing approach based on intermolecular interactions. <i>Renewable Energy</i> , 2020 , 152, 1086-1098	8.1	37
111	Estimation of adsorption capacity of CO2, CH4, and their binary mixtures in Quidam shale using LSSVM: Application in CO2 enhanced shale gas recovery and CO2 storage. <i>Journal of Natural Gas Science and Engineering</i> , 2020 , 76, 103204	4.6	28
110	Extreme Learning Machine-Based Model for Solubility Estimation of Hydrocarbon Gases in Electrolyte Solutions. <i>Processes</i> , 2020 , 8, 92	2.9	14
109	Applying ANN, ANFIS, and LSSVM Models for Estimation of Acid Solvent Solubility in Supercritical CO2. <i>Computers, Materials and Continua</i> , 2020 , 63, 1175-1204	3.9	8

(2019-2020)

108	Modeling of cetane number of biodiesel from fatty acid methyl ester (FAME) information using GA-, PSO-, and HGAPSO- LSSVM models. <i>Renewable Energy</i> , 2020 , 150, 924-934	8.1	47
107	Insight into the antiviral activity of synthesized schizonepetin derivatives: A theoretical investigation. <i>Scientific Reports</i> , 2020 , 10, 8599	4.9	2
106	Estimating CO2-Brine diffusivity using hybrid models of ANFIS and evolutionary algorithms. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020 , 14, 818-834	4.5	6
105	Modeling vaporization enthalpy of pure hydrocarbons and petroleum fractions using LSSVM approach. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020 , 42, 569-576	1.6	4
104	Neural computing approach for estimation of natural gas dew point temperature in glycol dehydration plant. <i>International Journal of Ambient Energy</i> , 2020 , 41, 775-782	2	22
103	Evolving connectionist approaches to compute thermal conductivity of TiO2/water nanofluid. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020 , 540, 122489	3.3	42
102	Towards ANFIS-PSO strategy for estimating viscosity of ternary mixtures containing ionic liquids. Journal of Molecular Liquids, 2020 , 298, 111802	6	1
101	An insight into the modeling of sulfur content of sour gases in supercritical region. <i>Journal of Petroleum Science and Engineering</i> , 2020 , 184, 106459	4.4	26
100	An insight into the prediction of TiO2/water nanofluid viscosity through intelligence schemes. Journal of Thermal Analysis and Calorimetry, 2020 , 139, 2381-2394	4.1	33
99	An insight into the estimation of fatty acid methyl ester based biodiesel properties using a LSSVM model. <i>Fuel</i> , 2019 , 243, 133-141	7.1	49
98	Towards experimental and modeling study of heat transfer performance of water- SiO2 nanofluid in quadrangular cross-section channels. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019 , 13, 453-469	4.5	25
97	On the evaluation of density of ionic liquids: towards a comparative study. <i>Chemical Engineering Research and Design</i> , 2019 , 147, 648-663	5.5	18
96	Neural computing approach for predicting vaporization enthalpy of pure hydrocarbons and petroleum fractions. <i>Petroleum Science and Technology</i> , 2019 , 37, 1898-1904	1.4	O
95	Implementing PSO-LSSVM model to approximate vaporization enthalpy of pure hydrocarbons and petroleum fractions. <i>Petroleum Science and Technology</i> , 2019 , 37, 1891-1897	1.4	3
94	Modeling of carbon dioxide capture from gas stream emissions using amino acid salts blended with amine solutions. <i>Petroleum Science and Technology</i> , 2019 , 37, 1868-1874	1.4	О
93	Phase behavior modeling of asphaltene precipitation utilizing RBF-ANN approach. <i>Petroleum Science and Technology</i> , 2019 , 37, 1861-1867	1.4	17
92	On the prediction of solubility of alkane in carbon dioxide using the LSSVM algorithm. <i>Petroleum Science and Technology</i> , 2019 , 37, 1231-1237	1.4	1
91	Modeling the heat of vaporization of petroleum fractions and pure hydrocarbons. <i>Petroleum Science and Technology</i> , 2019 , 37, 1875-1882	1.4	

90	Experimental, kinetic, and thermodynamic studies of adsorptive desulfurization and denitrogenation of model fuels using novel mesoporous materials. <i>Journal of Hazardous Materials</i> , 2019 , 374, 129-139	12.8	43
89	Optimization methods using artificial intelligence algorithms to estimate thermal efficiency of PV/T system. <i>Energy Science and Engineering</i> , 2019 , 7, 821-834	3.4	22
88	Evolving generalized correlations based on Peng-Robinson equation of state for estimating dynamic viscosities of alkanes in supercritical region. <i>Journal of Molecular Liquids</i> , 2019 , 284, 755-764	6	
87	On the estimation of higher heating value of municipal wastes using soft computing approaches. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019 , 1-9	1.6	5
86	QSPR based ANFIS model for predicting standard molar chemical exergy of organic materials. <i>Petroleum Science and Technology</i> , 2019 , 37, 2174-2181	1.4	7
85	Application of ANFIS and LSSVM strategies for estimating thermal conductivity enhancement of metal and metal oxide based nanofluids. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019 , 13, 560-578	4.5	34
84	Rigorous model for determination of PVT properties of crude oil in operational conditions. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019 , 1-7	1.6	1
83	Developing an ANFIS-PSO Model to Predict Mercury Emissions in Combustion Flue Gases. <i>Mathematics</i> , 2019 , 7, 965	2.3	28
82	Hydrocarbons density estimates for a wide range of conditions using RBF-ANN and ANFIS strategies. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019 , 1-9	1.6	1
81	Sensitivity analysis and application of machine learning methods to predict the heat transfer performance of CNT/water nanofluid flows through coils. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 128, 825-835	4.9	94
80	Estimating solubility of supercritical H2S in ionic liquids through a hybrid LSSVM chemical structure model. <i>Chinese Journal of Chemical Engineering</i> , 2019 , 27, 620-627	3.2	11
79	Rigorous prognostication of permeability of heterogeneous carbonate oil reservoirs: Smart modeling and correlation development. <i>Fuel</i> , 2019 , 236, 110-123	7.1	39
78	Insight into the experimental and modeling study of process intensification for post-combustion CO2 capture by rotating packed bed. <i>Journal of Cleaner Production</i> , 2019 , 211, 953-961	10.3	19
77	Developing an ANFIS-based swarm concept model for estimating the relative viscosity of nanofluids. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019 , 13, 26-39	4.5	69
76	Sulfur dioxide solubility prediction in ionic liquids by a group contribution ILSSVM model. <i>Chemical Engineering Research and Design</i> , 2019 , 142, 44-52	5.5	11
75	Computational modeling of biodiesel production using supercritical methanol. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019 , 41, 14-20	1.6	4
74	GA-ANFIS modeling of higher heating value of wastes: Application to fuel upgrading. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019 , 41, 7-13	1.6	6
73	Toward a modeling study of thermal conductivity of nanofluids using LSSVM strategy. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 135, 507-522	4.1	12

(2018-2018)

72	Viscosity estimation of Athabasca bitumen in solvent injection process using genetic programming strategy. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2018 , 40, 922-928	1.6	4	
71	The application of nanofluids for recovery of asphaltenic oil. <i>Petroleum Science and Technology</i> , 2018 , 36, 287-292	1.4	3	
70	Neural computations in modelling of CO2 capture from Gas stream emissions by Sodium Glycinate solution. <i>Petroleum Science and Technology</i> , 2018 , 36, 326-331	1.4	4	
69	Application of a supervised learning machine for accurate prognostication of higher heating values of solid wastes. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2018 , 40, 558-56	54 ^{1.6}	18	
68	Estimating density of supercritical carbon dioxide and methane using modified thermodynamic models. <i>Petroleum Science and Technology</i> , 2018 , 36, 437-442	1.4		
67	Connectionist intelligent model estimates of convective heat transfer coefficient of nanofluids in circular cross-sectional channels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018 , 132, 1213-1239	4.1	34	
66	Evolving new group contribution-LSSVM model to estimate standard molar chemical exergy of pure organic substances. <i>Petroleum Science and Technology</i> , 2018 , 36, 1022-1029	1.4	7	
65	ANFIS-GA modeling of dynamic viscosity of N-Alkane in different operational conditions. <i>Petroleum Science and Technology</i> , 2018 , 36, 1015-1021	1.4	4	
64	Modeling of CO2 absorbtion by amino acid salts blended with amine solutions. <i>Petroleum Science and Technology</i> , 2018 , 36, 843-849	1.4	2	
63	Utilization of LSSVM algorithm for estimating synthetic natural gas density. <i>Petroleum Science and Technology</i> , 2018 , 36, 807-812	1.4	18	
62	Application of LSSVM algorithm for estimating higher heating value of biomass based on ultimate analysis. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2018 , 40, 709-715	1.6	29	
61	Applying ANFIS-PSO algorithm as a novel accurate approach for prediction of gas density. <i>Petroleum Science and Technology</i> , 2018 , 36, 820-826	1.4	28	
60	Prediction of solubility of ammonia in liquid electrolytes using Least Square Support Vector Machines. <i>Ain Shams Engineering Journal</i> , 2018 , 9, 1303-1312	4.4	24	
59	Rigorous prognostication and modeling of gas adsorption on activated carbon and Zeolite-5A. <i>Journal of Environmental Management</i> , 2018 , 224, 58-68	7.9	20	
58	Application of MLP-ANN as novel tool for estimation of effect of inhibitors on asphaltene precipitation reduction. <i>Petroleum Science and Technology</i> , 2018 , 36, 1272-1277	1.4	4	
57	Group contribution methods for estimating CO2 absorption capacities of imidazolium and ammonium-based polyionic liquids. <i>Journal of Cleaner Production</i> , 2018 , 203, 601-618	10.3	26	
56	Modeling of CO2 capture from gas stream emissions of petrochemical industries by membrane contactor. <i>Petroleum Science and Technology</i> , 2018 , 36, 1446-1454	1.4	1	
55	Improved estimation of Cetane number of fatty acid methyl esters (FAMEs) based biodiesels using TLBO-NN and PSO-NN models. <i>Fuel</i> , 2018 , 232, 620-631	7.1	38	

54	Efficient modeling of drug solubility in supercritical carbon dioxide. <i>Journal of Supercritical Fluids</i> , 2018 , 133, 466-478	4.2	10
53	ANFIS modeling of CO2 separation from natural gas using hollow fiber polymeric membrane. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2018 , 40, 193-199	1.6	2
52	Absorption of CO2-rich gaseous mixtures in ionic liquids: A computational study. <i>Journal of Supercritical Fluids</i> , 2018 , 133, 455-465	4.2	16
51	ANFIS based evolutionary concept for estimating nucleate pool boiling heat transfer of refrigerant-ester oil containing nanoparticles. <i>International Journal of Refrigeration</i> , 2018 , 96, 38-49	3.8	10
50	On the determination of cetane number of hydrocarbons and oxygenates using Adaptive Neuro Fuzzy Inference System optimized with evolutionary algorithms. <i>Fuel</i> , 2018 , 230, 344-354	7.1	20
49	On the prediction of critical micelle concentration for sugar-based non-ionic surfactants. <i>Chemistry and Physics of Lipids</i> , 2018 , 214, 46-57	3.7	12
48	A new chemical structure-based model to estimate solid compound solubility in supercritical CO2. <i>Journal of CO2 Utilization</i> , 2018 , 26, 262-270	7.6	15
47	Utilization of RBF-ANN as a novel approach for estimation of asphaltene inhibition efficiency. <i>Petroleum Science and Technology</i> , 2018 , 36, 1216-1221	1.4	7
46	Modeling dynamic viscosity of n-alkanes using LSSVM technique. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2018 , 40, 1966-1973	1.6	2
45	Evolving simple-to-apply models for estimating thermal conductivity of supercritical CO2. <i>International Journal of Ambient Energy</i> , 2017 , 38, 300-307	2	12
44	Rigorous modeling of CO 2 equilibrium absorption in ionic liquids. <i>International Journal of Greenhouse Gas Control</i> , 2017 , 58, 19-41	4.2	83
43	Prediction of CO 2 loading capacities of aqueous solutions of absorbents using different computational schemes. <i>International Journal of Greenhouse Gas Control</i> , 2017 , 57, 143-161	4.2	55
42	Evolving ANFIS model to estimate density of bitumen-tetradecane mixtures. <i>Petroleum Science and Technology</i> , 2017 , 35, 120-126	1.4	10
41	Prediction viscosity of ionic liquids using a hybrid LSSVM and group contribution method. <i>Journal of Molecular Liquids</i> , 2017 , 236, 452-464	6	47
40	Modelling of methane hydrate formation pressure in the presence of different inhibitors. <i>Petroleum Science and Technology</i> , 2017 , 35, 92-98	1.4	3
39	PSO-ANFIS modeling of viscosity for mixtures of Athabasca bitumen and a high-boiling n-alkane. <i>Petroleum Science and Technology</i> , 2017 , 35, 1614-1620	1.4	19
38	Radial basis function artificial neural network model to estimate higher heating value of solid wastes. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2017 , 39, 1778-1784	1.6	14
37	Application of LSSVM for biodiesel production using supercritical ethanol solvent. <i>Energy Sources,</i> Part A: Recovery, Utilization and Environmental Effects, 2017 , 39, 1869-1874	1.6	20

(2016-2017)

36	Application of ANFIS strategy for prediction of biodiesel production using supercritical methanol. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2017 , 39, 1862-1868	1.6	11	
35	ANFIS modeling of rhamnolipid breakthrough curves on activated carbon. <i>Chemical Engineering Research and Design</i> , 2017 , 126, 67-75	5.5	32	
34	Application of LS-SVM strategy to estimate H2S loading capacity in different ionic liquids and alkanolamines. <i>Petroleum Science and Technology</i> , 2017 , 35, 1117-1123	1.4	4	
33	Utilization of LSSVM strategy to predict water content of sweet natural gas. <i>Petroleum Science and Technology</i> , 2017 , 35, 761-767	1.4	18	
32	Viscosity estimation of mixed oil using RBF-ANN approach. <i>Petroleum Science and Technology</i> , 2017 , 35, 1731-1736	1.4	21	
31	Estimation of wax deposition in the oil production units using RBF-ANN strategy. <i>Petroleum Science and Technology</i> , 2017 , 35, 1737-1742	1.4	5	
30	Estimating water content of natural gas: A radial basis function neural network method. <i>Petroleum Science and Technology</i> , 2017 , 35, 1852-1858	1.4	4	
29	Kinetic modeling and laboratory investigation of catalytic toluene methylation to para-xylene. <i>Petroleum Science and Technology</i> , 2017 , 35, 1866-1872	1.4	9	
28	Modeling of wax deposition produced in the pipelines using PSO-ANFIS approach. <i>Petroleum Science and Technology</i> , 2017 , 35, 1974-1981	1.4	13	
27	Asphaltene deposition during flow through pipes: Parametric and inhibition analyses. <i>Petroleum Science and Technology</i> , 2017 , 35, 2127-2132	1.4	4	
26	Phase behavior modelling of asphaltene precipitation utilizing MLP-ANN approach. <i>Petroleum Science and Technology</i> , 2017 , 35, 2009-2015	1.4	25	
25	Evolving ANFIS model to estimate sweet natural gas water content. <i>Petroleum Science and Technology</i> , 2017 , 35, 1807-1813	1.4	6	
24	Modeling of hydrate formation condition for binary gases containing methane and ethane. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2017 , 39, 2166-2172	1.6		
23	On the estimation of viscosities and densities of CO 2 -loaded MDEA, MDEA + AMP, MDEA + DIPA, MDEA + MEA, and MDEA + DEA aqueous solutions. <i>Journal of Molecular Liquids</i> , 2017 , 242, 146-159	6	31	
22	Modeling of the density of mixtures of Athabasca bitumen and a high boiling n-alkane. <i>Petroleum Science and Technology</i> , 2017 , 35, 594-600	1.4	3	
21	ANFIS modeling of carbon dioxide capture from gas stream emissions in the petrochemical production units. <i>Petroleum Science and Technology</i> , 2017 , 35, 625-631	1.4	7	
20	Modeling of CO2-brine interfacial tension: Application to enhanced oil recovery. <i>Petroleum Science and Technology</i> , 2017 , 35, 2179-2186	1.4	10	
19	Estimation of oil and gas properties in petroleum production and processing operations using rigorous model. <i>Petroleum Science and Technology</i> , 2016 , 34, 1129-1136	1.4	14	

18	Application of the ANFIS strategy to estimate vaporization enthalpies of petroleum fractions and pure hydrocarbons. <i>Petroleum Science and Technology</i> , 2016 , 34, 1359-1366	1.4	29
17	Phase equilibrium modelling of natural gas hydrate formation conditions using LSSVM approach. <i>Petroleum Science and Technology</i> , 2016 , 34, 1431-1438	1.4	34
16	Rapid prediction of hydrate condition for promoting CO2 recovery in the oil and gas industry. <i>Petroleum Science and Technology</i> , 2016 , 34, 1669-1674	1.4	1
15	Modeling of viscosity for mixtures of Athabasca bitumen and heavy n-alkane with LSSVM algorithm. <i>Petroleum Science and Technology</i> , 2016 , 34, 1698-1704	1.4	28
14	Determination of efficient surfactants in the oil and gas production units using the SVM approach. <i>Petroleum Science and Technology</i> , 2016 , 34, 1691-1697	1.4	9
13	Modeling of true vapor pressure of petroleum products using ANFIS algorithm. <i>Petroleum Science and Technology</i> , 2016 , 34, 933-939	1.4	31
12	Estimation of natural gases water content using adaptive neuro-fuzzy inference system. <i>Petroleum Science and Technology</i> , 2016 , 34, 891-897	1.4	30
11	Estimation of air dew point temperature using computational intelligence schemes. <i>Applied Thermal Engineering</i> , 2016 , 93, 1043-1052	5.8	96
10	Evolving machine learning models to predict hydrogen sulfide solubility in the presence of various ionic liquids. <i>Journal of Molecular Liquids</i> , 2016 , 216, 411-422	6	59
9	Application of LSSVM strategy to estimate asphaltene precipitation during different production processes. <i>Petroleum Science and Technology</i> , 2016 , 34, 1855-1860	1.4	35
8	Estimation of the CO2-oil minimum miscibility pressure for enhanced oil recovery. <i>Petroleum Science and Technology</i> , 2016 , 34, 1847-1854	1.4	9
7	Computational intelligent strategies to predict energy conservation benefits in excess air controlled gas-fired systems. <i>Applied Thermal Engineering</i> , 2016 , 102, 432-446	5.8	31
6	Modelling of gas to hydrate conversion for promoting CO2 capture processes in the oil and gas industry. <i>Petroleum Science and Technology</i> , 2016 , 34, 642-651	1.4	14
5	Modelling of CO2 separation from gas streams emissions in the oil and gas industries. <i>Petroleum Science and Technology</i> , 2016 , 34, 1291-1299	1.4	8
4	Prediction carbon dioxide solubility in presence of various ionic liquids using computational intelligence approaches. <i>Journal of Supercritical Fluids</i> , 2015 , 98, 50-64	4.2	153
3	Phase equilibrium modeling of semi-clathrate hydrates of seven commonly gases in the presence of TBAB ionic liquid promoter based on a low parameter connectionist technique. <i>Journal of Supercritical Fluids</i> , 2015 , 101, 184-192	4.2	90
2	Estimating hydrogen sulfide solubility in ionic liquids using a machine learning approach. <i>Journal of Supercritical Fluids</i> , 2014 , 95, 525-534	4.2	83
1	Applying ANN, ANFIS, and LSSVM Models for Estimation of Acid Solvent Solubility in Supercritical CO2		15