

# Mohammad Hossein Ahmadi

## List of Publications by Year in descending order

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239  
papers

12,967  
citations

12303

69  
h-index

33814

99  
g-index

247  
all docs

247  
docs citations

247  
times ranked

6460  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermoelectric cooler and thermoelectric generator devices: A review of present and potential applications, modeling and materials. <i>Energy</i> , 2019, 186, 115849.	4.5	344
2	A review of thermal conductivity of various nanofluids. <i>Journal of Molecular Liquids</i> , 2018, 265, 181-188.	2.3	296
3	Evolving artificial neural network and imperialist competitive algorithm for prediction oil flow rate of the reservoir. <i>Applied Soft Computing Journal</i> , 2013, 13, 1085-1098.	4.1	255
4	Designing a solar powered Stirling heat engine based on multiple criteria: Maximized thermal efficiency and power. <i>Energy Conversion and Management</i> , 2013, 75, 282-291.	4.4	216
5	Experimental investigation of graphene oxide nanofluid on heat transfer enhancement of pulsating heat pipe. <i>International Communications in Heat and Mass Transfer</i> , 2018, 91, 90-94.	2.9	187
6	Prediction carbon dioxide solubility in presence of various ionic liquids using computational intelligence approaches. <i>Journal of Supercritical Fluids</i> , 2015, 98, 50-64.	1.6	184
7	Reservoir permeability prediction by neural networks combined with hybrid genetic algorithm and particle swarm optimization. <i>Geophysical Prospecting</i> , 2013, 61, 582-598.	1.0	179
8	Experimental investigation of adsorption of a new nonionic surfactant on carbonate minerals. <i>Fuel</i> , 2013, 104, 462-467.	3.4	150
9	Adsorption of Novel Nonionic Surfactant and Particles Mixture in Carbonates: Enhanced Oil Recovery Implication. <i>Energy &amp; Fuels</i> , 2012, 26, 4655-4663.	2.5	148
10	Experimental and numerical analysis of a nanofluidic thermosyphon heat exchanger. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 40-47.	1.5	145
11	Nonionic Surfactant for Enhanced Oil Recovery from Carbonates: Adsorption Kinetics and Equilibrium. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 9894-9905.	1.8	143
12	Implementation of a high-performance surfactant for enhanced oil recovery from carbonate reservoirs. <i>Journal of Petroleum Science and Engineering</i> , 2013, 110, 66-73.	2.1	142
13	Comparing various machine learning approaches in modeling the dynamic viscosity of CuO/water nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 2585-2599.	2.0	142
14	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.	2.5	141
15	Induced effect of adding nano silica on adsorption of a natural surfactant onto sandstone rock: Experimental and theoretical study. <i>Journal of Petroleum Science and Engineering</i> , 2013, 112, 239-247.	2.1	140
16	Factorial experimental design for the thermal performance of a double pipe heat exchanger using Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> hybrid nanofluid. <i>International Communications in Heat and Mass Transfer</i> , 2018, 97, 92-102.	2.9	140
17	Experimental investigation of a natural surfactant adsorption on shale-sandstone reservoir rocks: Static and dynamic conditions. <i>Fuel</i> , 2015, 159, 15-26.	3.4	139
18	Prediction of Condensate-to-Gas Ratio for Retrograde Gas Condensate Reservoirs Using Artificial Neural Network with Particle Swarm Optimization. <i>Energy &amp; Fuels</i> , 2012, 26, 3432-3447.	2.5	137

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19	New approach for prediction of asphaltene precipitation due to natural depletion by using evolutionary algorithm concept. <i>Fuel</i> , 2012, 102, 716-723.	3.4	134
20	Neural network based unified particle swarm optimization for prediction of asphaltene precipitation. <i>Fluid Phase Equilibria</i> , 2012, 314, 46-51.	1.4	134
21	Thermal models for analysis of performance of Stirling engine: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 68, 168-184.	8.2	131
22	A review on the utilized machine learning approaches for modeling the dynamic viscosity of nanofluids. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 114, 109345.	8.2	127
23	Renewable energy harvesting with the application of nanotechnology: A review. <i>International Journal of Energy Research</i> , 2019, 43, 1387-1410.	2.2	125
24	Evolving smart approach for determination dew point pressure through condensate gas reservoirs. <i>Fuel</i> , 2014, 117, 1074-1084.	3.4	124
25	Prediction breakthrough time of water coning in the fractured reservoirs by implementing low parameter support vector machine approach. <i>Fuel</i> , 2014, 117, 579-589.	3.4	123
26	A numerical and experimental study on the energy efficiency of a regenerative Heat and Mass Exchanger utilizing the counter-flow Maisotsenko cycle. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020, 14, 1-12.	1.5	118
27	Prediction of asphaltene precipitation using artificial neural network optimized by imperialist competitive algorithm. <i>Journal of Petroleum Exploration and Production</i> , 2011, 1, 99-106.	1.2	117
28	Connectionist model predicts the porosity and permeability of petroleum reservoirs by means of petro-physical logs: Application of artificial intelligence. <i>Journal of Petroleum Science and Engineering</i> , 2014, 123, 183-200.	2.1	117
29	Application of nanofluids in thermosyphons: A review. <i>Journal of Molecular Liquids</i> , 2018, 272, 395-402.	2.3	116
30	Wettability Alteration in Carbonate Rocks by Implementing New Derived Natural Surfactant: Enhanced Oil Recovery Applications. <i>Transport in Porous Media</i> , 2015, 106, 645-667.	1.2	115
31	Thermodynamic analysis and multi objective optimization of performance of solar dish Stirling engine by the centrality of entransy and entropy generation. <i>International Journal of Electrical Power and Energy Systems</i> , 2016, 78, 88-95.	3.3	115
32	Preliminary evaluation of mulberry leaf-derived surfactant on interfacial tension in an oil-aqueous system: EOR application. <i>Fuel</i> , 2014, 117, 749-755.	3.4	113
33	Comparison of machine learning methods for estimating permeability and porosity of oil reservoirs via petro-physical logs. <i>Petroleum</i> , 2019, 5, 271-284.	1.3	112
34	Determination of oil well production performance using artificial neural network (ANN) linked to the particle swarm optimization (PSO) tool. <i>Petroleum</i> , 2015, 1, 118-132.	1.3	111
35	A review on the approaches applied for cooling fuel cells. <i>International Journal of Heat and Mass Transfer</i> , 2019, 139, 517-525.	2.5	111
36	Evolving predictive model to determine condensate-to-gas ratio in retrograded condensate gas reservoirs. <i>Fuel</i> , 2014, 124, 241-257.	3.4	110

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37	A proposed model to predict thermal conductivity ratio of Al <sub>2</sub> O <sub>3</sub> /EG nanofluid by applying least squares support vector machine (LSSVM) and genetic algorithm as a connectionist approach. Journal of Thermal Analysis and Calorimetry, 2019, 135, 271-281.	2.0	109
38	Neural network based swarm concept for prediction asphaltene precipitation due to natural depletion. Journal of Petroleum Science and Engineering, 2012, 98-99, 40-49.	2.1	108
39	Thermo-economic optimization of Stirling heat pump by using non-dominated sorting genetic algorithm. Energy Conversion and Management, 2015, 91, 315-322.	4.4	102
40	Thermal conductivity ratio prediction of Al <sub>2</sub> O <sub>3</sub> /water nanofluid by applying connectionist methods. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 541, 154-164.	2.3	101
41	Smart modeling by using artificial intelligent techniques on thermal performance of flat-plate solar collector using nanofluid. Energy Science and Engineering, 2019, 7, 1649-1658.	1.9	101
42	Estimating hydrogen sulfide solubility in ionic liquids using a machine learning approach. Journal of Supercritical Fluids, 2014, 95, 525-534.	1.6	100
43	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. Journal of Supercritical Fluids, 2015, 101, 184-192.	1.6	99
44	Multi-objective optimization of an irreversible Stirling cryogenic refrigerator cycle. Energy Conversion and Management, 2014, 82, 351-360.	4.4	98
45	Thermodynamic and thermo-economic analysis and optimization of an irreversible regenerative closed Brayton cycle. Energy Conversion and Management, 2015, 94, 124-129.	4.4	97
46	A LSSVM approach for determining well placement and conning phenomena in horizontal wells. Fuel, 2015, 153, 276-283.	3.4	96
47	Thermodynamic and thermo-economic analysis and optimization of performance of irreversible four-temperature-level absorption refrigeration. Energy Conversion and Management, 2014, 88, 1051-1059.	4.4	94
48	A developed smart technique to predict minimum miscible pressure's implications. Canadian Journal of Chemical Engineering, 2013, 91, 1325-1337.	0.9	92
49	Connectionist approach estimates gas-oil relative permeability in petroleum reservoirs: Application to reservoir simulation. Fuel, 2015, 140, 429-439.	3.4	92
50	Heat transfer and entropy generation of the nanofluid flow inside sinusoidal wavy channels. Journal of Molecular Liquids, 2018, 269, 229-240.	2.3	92
51	Developing an ANFIS-based swarm concept model for estimating the relative viscosity of nanofluids. Engineering Applications of Computational Fluid Mechanics, 2019, 13, 26-39.	1.5	90
52	A rigorous model to predict the amount of Dissolved Calcium Carbonate Concentration throughout oil field brines: Side effect of pressure and temperature. Fuel, 2015, 139, 154-159.	3.4	88
53	Thermodynamic analysis and performance optimization of irreversible Carnot refrigerator by using multi-objective evolutionary algorithms (MOEAs). Renewable and Sustainable Energy Reviews, 2015, 51, 1055-1070.	8.2	87
54	Experimental study on adsorption of a new surfactant onto carbonate reservoir samples' application to EOR. Canadian Journal of Chemical Engineering, 2013, 91, 1439-1449.	0.9	86

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55	Thermodynamic Investigation of Asphaltene Precipitation during Primary Oil Production: Laboratory and Smart Technique. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 6009-6031.	1.8	86
56	Multi objective optimization of performance of three-heat-source irreversible refrigerators based algorithm NSGAI. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 60, 784-794.	8.2	85
57	Connectionist technique estimates H <sub>2</sub> S solubility in ionic liquids through a low parameter approach. <i>Journal of Supercritical Fluids</i> , 2015, 97, 81-87.	1.6	82
58	Connectionist intelligent model estimates output power and torque of stirling engine. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 50, 871-883.	8.2	80
59	Thermo-ecological analysis and optimization performance of an irreversible three-heat-source absorption heat pump. <i>Energy Conversion and Management</i> , 2015, 90, 175-183.	4.4	79
60	Thermodynamic analysis and optimization for an irreversible heat pump working on reversed Brayton cycle. <i>Energy Conversion and Management</i> , 2016, 110, 260-267.	4.4	79
61	Predicting the efficiency of CuO/water nanofluid in heat pipe heat exchanger using neural network. <i>International Communications in Heat and Mass Transfer</i> , 2019, 104, 33-40.	2.9	79
62	Energy, exergy and economic analyses of a novel system to recover waste heat and water in steam power plants. <i>Energy Conversion and Management</i> , 2017, 144, 351-360.	4.4	78
63	Challenges and future of chemical assisted heavy oil recovery processes. <i>Advances in Colloid and Interface Science</i> , 2020, 275, 102081.	7.0	77
64	Thermodynamic analysis and optimization of an irreversible Ericsson cryogenic refrigerator cycle. <i>Energy Conversion and Management</i> , 2015, 89, 147-155.	4.4	76
65	Thermodynamic optimization of Stirling heat pump based on multiple criteria. <i>Energy Conversion and Management</i> , 2014, 80, 319-328.	4.4	75
66	Evaluation of electrical efficiency of photovoltaic thermal solar collector. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020, 14, 545-565.	1.5	75
67	A computational intelligence scheme for prediction equilibrium water dew point of natural gas in TEG dehydration systems. <i>Fuel</i> , 2014, 137, 145-154.	3.4	73
68	Using GMDH Neural Networks to Model the Power and Torque of a Stirling Engine. <i>Sustainability</i> , 2015, 7, 2243-2255.	1.6	73
69	Experimental Study and Modeling of Ultrafiltration of Refinery Effluents Using a Hybrid Intelligent Approach. <i>Energy &amp; Fuels</i> , 2013, 27, 3523-3537.	2.5	72
70	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.	2.3	72
71	ANN-Based Prediction of Laboratory-Scale Performance of CO <sub>2</sub> -Foam Flooding for Improving Oil Recovery. <i>Natural Resources Research</i> , 2019, 28, 1619-1637.	2.2	71
72	Prediction of Thermo-Physical Properties of TiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> /Water Nanoparticles by Using Artificial Neural Network. <i>Nanomaterials</i> , 2020, 10, 697.	1.9	71

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73	Robust intelligent tool for estimating dew point pressure in retrograded condensate gas reservoirs: Application of particle swarm optimization. <i>Journal of Petroleum Science and Engineering</i> , 2014, 123, 7-19.	2.1	69
74	Toward reliable model for prediction Drilling Fluid Density at wellbore conditions: A LSSVM model. <i>Neurocomputing</i> , 2016, 211, 143-149.	3.5	68
75	Applying a sophisticated approach to predict CO <sub>2</sub> solubility in brines: application to CO <sub>2</sub> sequestration. <i>International Journal of Low-Carbon Technologies</i> , 2016, 11, 325-332.	1.2	67
76	Connectionist model for predicting minimum gas miscibility pressure: Application to gas injection process. <i>Fuel</i> , 2015, 148, 202-211.	3.4	65
77	Spotlight on the New Natural Surfactant Flooding in Carbonate Rock Samples in Low Salinity Condition. <i>Scientific Reports</i> , 2018, 8, 10985.	1.6	65
78	Numerical modeling of CO <sub>2</sub> injection scenarios in petroleum reservoirs: Application to CO <sub>2</sub> sequestration and EOR. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 30, 38-49.	2.1	63
79	Thermodynamic analysis and evolutionary algorithm based on multi-objective optimization performance of actual power generating thermal cycles. <i>Applied Thermal Engineering</i> , 2016, 99, 996-1005.	3.0	62
80	Applying GMDH artificial neural network in modeling CO <sub>2</sub> emissions in four nordic countries. <i>International Journal of Low-Carbon Technologies</i> , 2018, 13, 266-271.	1.2	62
81	Performance improvement of ionic surfactant flooding in carbonate rock samples by use of nanoparticles. <i>Petroleum Science</i> , 2016, 13, 725-736.	2.4	60
82	Estimation of H <sub>2</sub> S solubility in ionic liquids using a rigorous method. <i>Journal of Supercritical Fluids</i> , 2014, 92, 60-69.	1.6	59
83	Optimization of powered Stirling heat engine with finite speed thermodynamics. <i>Energy Conversion and Management</i> , 2016, 108, 96-105.	4.4	59
84	Exergy and economic analyses of replacing feedwater heaters in a Rankine cycle with parabolic trough collectors. <i>Energy Reports</i> , 2018, 4, 243-251.	2.5	59
85	Comprehensive molecular scale modeling of anionic surfactant-asphaltene interactions. <i>Fuel</i> , 2021, 288, 119729.	3.4	59
86	Performance Optimization of a Solar-Driven Multi-Step Irreversible Brayton Cycle Based on a Multi-Objective Genetic Algorithm. <i>Oil and Gas Science and Technology</i> , 2016, 71, 16.	1.4	57
87	Rigorous smart model for predicting dynamic viscosity of Al <sub>2</sub> O <sub>3</sub> /water nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 137, 307-316.	2.0	57
88	On the evaluation of asphaltene precipitation titration data: Modeling and data assessment. <i>Fluid Phase Equilibria</i> , 2016, 415, 88-100.	1.4	55
89	Ground source heat pump carbon emissions and ground-source heat pump systems for heating and cooling of buildings: A review. <i>Environmental Progress and Sustainable Energy</i> , 2018, 37, 1241-1265.	1.3	55
90	Development of multilayer perceptron artificial neural network (MLP-ANN) and least square support vector machine (LSSVM) models to predict Nusselt number and pressure drop of TiO <sub>2</sub> /water nanofluid flows through non-straight pathways. <i>Numerical Heat Transfer; Part A: Applications</i> , 2018, 74, 1190-1206.	1.2	55

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91	Applicability of connectionist methods to predict dynamic viscosity of silver/water nanofluid by using ANN-MLP, MARS and MPR algorithms. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 220-228.	1.5	55
92	Thermo-economic and thermodynamic analysis and optimization of a two-stage irreversible heat pump. <i>Energy Conversion and Management</i> , 2015, 99, 81-91.	4.4	54
93	Development of robust model to estimate gas-liquid interfacial tension using least square support vector machine: Experimental and modeling study. <i>Journal of Supercritical Fluids</i> , 2016, 107, 122-128.	1.6	54
94	Modeling of heat transfer performance of carbon nanotube nanofluid in a tube with fixed wall temperature by using ANN-GA. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	54
95	Modeling and experimental verification of a 25W fabricated PEM fuel cell by parametric and GMDH-type neural network. <i>Mechanics and Industry</i> , 2016, 17, 105.	0.5	53
96	Insight into the Interfacial Behavior of Surfactants and Asphaltenes: Molecular Dynamics Simulation Study. <i>Energy &amp; Fuels</i> , 2020, 34, 13536-13551.	2.5	53
97	Optimization performance and thermodynamic analysis of an irreversible nano scale Brayton cycle operating with Maxwell-Boltzmann gas. <i>Energy Conversion and Management</i> , 2015, 101, 592-605.	4.4	52
98	Prediction and modeling of MWCNT/Carbon (60/40)/SAE 10 W 40/SAE 85 W 90(50/50) nanofluid viscosity using artificial neural network (ANN) and self-organizing map (SOM). <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 134, 2275-2286.	2.0	51
99	Evolving connectionist approaches to compute thermal conductivity of $\text{TiO}_2$ /water nanofluid. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 540, 122409.	1.2	49
100	Estimation of breakthrough time for water coning in fractured systems: Experimental study and connectionist modeling. <i>AIChE Journal</i> , 2014, 60, 1905-1919.	1.8	48
101	A review on the applications of intelligence methods in predicting thermal conductivity of nanofluids. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 827.	2.0	48
102	A robust proxy for production well placement optimization problems. <i>Fuel</i> , 2017, 206, 467-481.	3.4	47
103	Performance assessment and optimization of an irreversible nano-scale Stirling engine cycle operating with Maxwell-Boltzmann gas. <i>European Physical Journal Plus</i> , 2015, 130, 1.	1.2	46
104	Designing a powered combined Otto and Stirling cycle power plant through multi-objective optimization approach. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 62, 585-595.	8.2	46
105	Interfacial and molecular interactions between fractions of heavy oil and surfactants in porous media: Comprehensive review. <i>Advances in Colloid and Interface Science</i> , 2020, 283, 102242.	7.0	46
106	Thermodynamic analysis and evolutionary algorithm based on multi-objective optimization of performance for irreversible four-temperature-level refrigeration. <i>Mechanics and Industry</i> , 2015, 16, 207.	0.5	45
107	Exergetic sustainability evaluation and multi-objective optimization of performance of an irreversible nanoscale Stirling refrigeration cycle operating with Maxwell-Boltzmann gas. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 78, 80-92.	8.2	45
108	Nano-surfactant flooding in carbonate reservoirs: A mechanistic study. <i>European Physical Journal Plus</i> , 2017, 132, 1.	1.2	45



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109	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.	2.0	45
110	Geothermal energy use in hydrogen production: A review. <i>International Journal of Energy Research</i> , 2019, 43, 7823.	2.2	45
111	Applying GMDH neural network to estimate the thermal resistance and thermal conductivity of pulsating heat pipes. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 327-336.	1.5	45
112	Thermal conductivity and dynamic viscosity modeling of Fe <sub>2</sub> O <sub>3</sub> /water nanofluid by applying various connectionist approaches. <i>Numerical Heat Transfer; Part A: Applications</i> , 2018, 74, 1301-1322.	1.2	44
113	An insight into the prediction of TiO <sub>2</sub> /water nanofluid viscosity through intelligence schemes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 2381-2394.	2.0	42
114	Machine learning-based models for predicting permeability impairment due to scale deposition. <i>Journal of Petroleum Exploration and Production</i> , 2020, 10, 2873-2884.	1.2	42
115	Gas Analysis by In Situ Combustion in Heavy Oil Recovery Process: Experimental and Modeling Studies. <i>Chemical Engineering and Technology</i> , 2014, 37, 409-418.	0.9	41
116	Developing a Robust Surrogate Model of Chemical Flooding Based on the Artificial Neural Network for Enhanced Oil Recovery Implications. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-9.	0.6	41
117	Applicability of connectionist methods to predict thermal resistance of pulsating heat pipes with ethanol by using neural networks. <i>International Journal of Heat and Mass Transfer</i> , 2018, 126, 1079-1086.	2.5	41
118	GMDH algorithm for modeling the outlet temperatures of a solar chimney based on the ambient temperature. <i>Mechanics and Industry</i> , 2017, 18, 216.	0.5	40
119	Determination of thermal conductivity ratio of CuO/ethylene glycol nanofluid by connectionist approach. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 91, 383-395.	2.7	40
120	Experimental and Theoretical Study of a New Plant Derived Surfactant Adsorption on Quartz Surface: Kinetic and Isotherm Methods. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 441-452.	1.3	37
121	Developing a robust proxy model of CO <sub>2</sub> injection: Coupling Box-Behnken design and a connectionist method. <i>Fuel</i> , 2018, 215, 904-914.	3.4	37
122	Thermo-economic and exergy assessment and optimization of performance of a hydrogen production system by using geothermal energy. <i>Energy and Environment</i> , 2018, 29, 1373-1392.	2.7	37
123	Evolving Connectionist Model to Monitor the Efficiency of an In-Situ Combustion Process: Application to Heavy Oil Recovery. <i>Energy Technology</i> , 2014, 2, 811-818.	1.8	36
124	Optimization methods using artificial intelligence algorithms to estimate thermal efficiency of PV/T system. <i>Energy Science and Engineering</i> , 2019, 7, 821-834.	1.9	36
125	Thermo-economic modeling and optimization of an irreversible solar-driven heat engine. <i>Energy Conversion and Management</i> , 2015, 103, 616-622.	4.4	35
126	Optimal Design of a Solar-Driven Heat Engine Based on Thermal and Ecological Criteria. <i>Journal of Energy Engineering - ASCE</i> , 2015, 141, .	1.0	35



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127	A predictive model of chemical flooding for enhanced oil recovery purposes: Application of least square support vector machine. <i>Petroleum</i> , 2016, 2, 177-182.	1.3	35
128	A reliable strategy to calculate minimum miscibility pressure of CO <sub>2</sub> -oil system in miscible gas flooding processes. <i>Fuel</i> , 2017, 208, 117-126.	3.4	35
129	An accurate model to predict drilling fluid density at wellbore conditions. <i>Egyptian Journal of Petroleum</i> , 2018, 27, 1-10.	1.2	34
130	Precise smart model for estimating dynamic viscosity of SiO <sub>2</sub> /ethylene glycol-water nanofluid. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 1095-1105.	1.5	34
131	Machine learning models to predict bottom hole pressure in multi-phase flow in vertical oil production wells. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 2928-2940.	0.9	34
132	Prediction of a solid desiccant dehydrator performance using least squares support vector machines algorithm. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2015, 50, 115-122.	2.7	33
133	Fuzzy Modeling and Experimental Investigation of Minimum Miscible Pressure in Gas Injection Process. <i>Fluid Phase Equilibria</i> , 2014, 378, 1-12.	1.4	32
134	Precise prediction of biogas thermodynamic properties by using ANN algorithm. <i>Renewable Energy</i> , 2020, 147, 179-191.	4.3	32
135	Medical and dental applications of renewable energy systems. <i>International Journal of Low-Carbon Technologies</i> , 2018, 13, 320-326.	1.2	31
136	Towards experimental and modeling study of heat transfer performance of water- SiO <sub>2</sub> nanofluid in quadrangular cross-section channels. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2019, 13, 453-469.	1.5	31
137	Molecular Interactions between Asphaltene and Surfactants in a Hydrocarbon Solvent: Application to Asphaltene Dispersion. <i>Symmetry</i> , 2020, 12, 1767.	1.1	31
138	Evolving Smart Model to Predict the Combustion Front Velocity for In-Situ Combustion. <i>Energy Technology</i> , 2015, 3, 128-135.	1.8	30
139	Carbon dioxide emissions prediction of five Middle Eastern countries using artificial neural networks. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2023, 45, 9513-9525.	1.2	30
140	Toward connectionist model for predicting bubble point pressure of crude oils: Application of artificial intelligence. <i>Petroleum</i> , 2015, 1, 307-317.	1.3	29
141	Phase Equilibrium Modeling of Clathrate Hydrates of Carbon Dioxide and 1,4-Dioxane Using Intelligent Approaches. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 236-244.	1.3	29
142	Application of fuzzy decision tree in EOR screening assessment. <i>Journal of Petroleum Science and Engineering</i> , 2019, 177, 167-180.	2.1	29
143	Colloidal gas achron drilling fluid properties generated by natural surfactants: Experimental investigation. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 27, 1109-1117.	2.1	28
144	Thermodynamic analysis and optimisation of an irreversible radiative-type heat engine by using non-dominated sorting genetic algorithm. <i>International Journal of Ambient Energy</i> , 2016, 37, 403-408.	1.4	28

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145	Evaluation of the ability of the hydrophobic nanoparticles of SiO <sub>2</sub> in the EOR process through carbonate rock samples. <i>Petroleum Science and Technology</i> , 2016, 34, 1048-1054.	0.7	28
146	Evolving simple-to-use method to determine water-oil relative permeability in petroleum reservoirs. <i>Petroleum</i> , 2016, 2, 67-78.	1.3	28
147	Thermodynamic analysis and optimization of the Atkinson engine by using NSGA-II. <i>International Journal of Low-Carbon Technologies</i> , 2016, 11, 317-324.	1.2	28
148	Geological storage of carbon dioxide by injection of carbonated water in an Iranian oil reservoir: A case study. <i>Journal of Petroleum Science and Engineering</i> , 2013, 111, 170-177.	2.1	27
149	Effect of operational parameters on the performance of carbonated water injection: Experimental and numerical modeling study. <i>Journal of Supercritical Fluids</i> , 2016, 107, 542-548.	1.6	26
150	Spotlight onto surfactant-steam-bitumen interfacial behavior via molecular dynamics simulation. <i>Scientific Reports</i> , 2021, 11, 19660.	1.6	26
151	Exergetic, economic, and environmental analyses of combined cooling and power plants with parabolic solar collector. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13322.	1.3	25
152	Nanofluid in Hydrophilic State for EOR Implication Through Carbonate Reservoir. <i>Journal of Dispersion Science and Technology</i> , 2014, 35, 1537-1542.	1.3	24
153	Thermodynamic analysis and evolutionary algorithm based on multi-objective optimisation of the Rankine cycle heat engine. <i>International Journal of Ambient Energy</i> , 2016, 37, 363-371.	1.4	24
154	Molecular dynamics simulation of oil detachment from hydrophobic quartz surfaces during steam-surfactant Co-injection. <i>Energy</i> , 2022, 254, 124434.	4.5	24
155	Use of nanoparticles to improve the performance of sodium dodecyl sulfate flooding in a sandstone reservoir. <i>European Physical Journal Plus</i> , 2016, 131, 1.	1.2	23
156	Experimental investigation the effect of nanoparticles on micellization behavior of a surfactant: Application to EOR. <i>Petroleum Science and Technology</i> , 2016, 34, 1055-1061.	0.7	23
157	Multi-objective optimization and exergetic-sustainability of an irreversible nano scale Braysson cycle operating with Maxwell-Boltzmann gas. <i>AEJ - Alexandria Engineering Journal</i> , 2016, 55, 1785-1798.	3.4	23
158	A least-squares support vector machine approach to predict temperature drop accompanying a given pressure drop for the natural gas production and processing systems. <i>International Journal of Ambient Energy</i> , 2017, 38, 122-129.	1.4	23
159	Current Status Investigation and Predicting Carbon Dioxide Emission in Latin American Countries by Connectionist Models. <i>Energies</i> , 2019, 12, 1916.	1.6	23
160	New tools to determine bubble point pressure of crude oils: Experimental and modeling study. <i>Journal of Petroleum Science and Engineering</i> , 2014, 123, 207-216.	2.1	22
161	Optimal design of an Otto cycle based on thermal criteria. <i>Mechanics and Industry</i> , 2016, 17, 111.	0.5	22
162	Optimizing flow properties of the different nanofluids inside a circular tube by using entropy generation minimization approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 801-811.	2.0	22

#	ARTICLE	IF	CITATIONS
163	Development of Simple-to-Use Predictive Models to Determine Thermal Properties of Fe <sub>2</sub> O <sub>3</sub> /Water-Ethylene Glycol Nanofluid. <i>Computation</i> , 2019, 7, 18.	1.0	22
164	Prediction performance of natural gas dehydration units for water removal efficiency using a least-square support vector machine. <i>International Journal of Ambient Energy</i> , 2016, 37, 486-494.	1.4	21
165	Low parameter model to monitor bottom hole pressure in vertical multiphase flow in oil production wells. <i>Petroleum</i> , 2016, 2, 258-266.	1.3	21
166	Investigation and optimization of performance of nano-scale Stirling refrigerator using working fluid as Maxwell-Boltzmann gases. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017, 483, 337-350.	1.2	21
167	MD simulations of oil-in-water/water-in-oil emulsions during surfactant-steam co-injection in bitumen recovery. <i>Fuel</i> , 2022, 314, 122718.	3.4	20
168	Entransy analysis and optimization of performance of nano-scale irreversible Otto cycle operating with Maxwell-Boltzmann ideal gas. <i>Chemical Physics Letters</i> , 2016, 658, 293-302.	1.2	19
169	Investigation of the effect of design parameters on power output and thermal efficiency of a Stirling engine by thermodynamic analysis. <i>International Journal of Low-Carbon Technologies</i> , 2016, 11, 141-156.	1.2	19
170	Recovery Rate of Vapor Extraction in Heavy Oil Reservoirs—Experimental, Statistical, and Modeling Studies. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 16091-16106.	1.8	17
171	Technical and economic feasibility study of flue gas injection in an Iranian oil field. <i>Petroleum</i> , 2015, 1, 217-222.	1.3	17
172	Accurate prediction of properties of carbon dioxide for carbon capture and sequestration operations. <i>Petroleum Science and Technology</i> , 2016, 34, 97-103.	0.7	17
173	Exergoeconomic comparison and optimization of organic Rankine cycle, trilateral Rankine cycle and transcritical carbon dioxide cycle for heat recovery of low-temperature geothermal water. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2019, 233, 1068-1084.	0.8	17
174	Status of direct and indirect solar desalination methods: comprehensive review. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	17
175	Prediction of performance of Stirling engine using least squares support machine technique. <i>Mechanics and Industry</i> , 2016, 17, 506.	0.5	16
176	Experimental investigation the effect of nanoparticles on the oil-water relative permeability. <i>European Physical Journal Plus</i> , 2016, 131, 1.	1.2	16
177	Robust correlation to predict dew point pressure of gas condensate reservoirs. <i>Petroleum</i> , 2017, 3, 340-347.	1.3	16
178	Thermodynamic analysis of adsorption of a naturally derived surfactant onto shale sandstone reservoirs. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	16
179	Modeling thermal conductivity of ethylene glycol-based nanofluids using multivariate adaptive regression splines and group method of data handling artificial neural network. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020, 14, 379-390.	1.5	16
180	Applications of machine learning methods in modeling various types of heat pipes: a review. <i>Journal of Thermal Analysis and Calorimetry</i> , 0, , 1.	2.0	16

#	ARTICLE	IF	CITATIONS
181	Solving asphaltene precipitation issue in vertical wells via redesigning of production facilities. <i>Petroleum</i> , 2015, 1, 139-145.	1.3	15
182	A simple approach for screening enhanced oil recovery methods: Application of artificial intelligence. <i>Petroleum Science and Technology</i> , 2016, 34, 1887-1893.	0.7	15
183	Fast marching method assisted sector modeling: Application to simulation of giant reservoir models. <i>Journal of Petroleum Science and Engineering</i> , 2017, 149, 707-719.	2.1	15
184	Evolving simple-to-apply models for estimating thermal conductivity of supercritical CO <sub>2</sub> . <i>International Journal of Ambient Energy</i> , 2017, 38, 300-307.	1.4	14
185	Hybrid connectionist model determines CO <sub>2</sub> oil swelling factor. <i>Petroleum Science</i> , 2018, 15, 591-604.	2.4	14
186	Thermodynamic Assessment and Multi-Objective Optimization of Performance of Irreversible Dual-Miller Cycle. <i>Energies</i> , 2019, 12, 4000.	1.6	14
187	Multi-objective optimization in a finite time thermodynamic method for dish-Stirling by branch and bound method and MOPSO algorithm. <i>Frontiers in Energy</i> , 2020, 14, 649-665.	1.2	14
188	Thermodynamic assessment and performance optimization of solid oxide fuel cell-Stirling heat engine reverse osmosis desalination. <i>International Journal of Low-Carbon Technologies</i> , 2021, 16, 417-428.	1.2	14
189	Implementation of artificial neural-networks to model the performance parameters of Stirling engine. <i>Mechanics and Industry</i> , 2016, 17, 307.	0.5	13
190	Estimation of the silica solubility in the superheated steam using LSSVM modeling approach. <i>Environmental Progress and Sustainable Energy</i> , 2016, 35, 596-602.	1.3	13
191	New thermodynamic analysis and optimization of performance of an irreversible diesel cycle. <i>Environmental Progress and Sustainable Energy</i> , 2018, 37, 1475-1490.	1.3	13
192	Exergetic sustainability evaluation and optimization of an irreversible Brayton cycle performance. <i>Frontiers in Energy</i> , 2019, 13, 399-410.	1.2	12
193	Adsorption of a nonionic surfactant onto a silica surface. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 1455-1460.	1.2	11
194	Multiobjective optimization design of the solar field and reverse osmosis system with preheating feed water using Genetic algorithm. <i>Energy Science and Engineering</i> , 2018, 6, 624-642.	1.9	11
195	Developing Thermodynamic Micellization Approach to Model Asphaltene Precipitation Behavior. <i>Journal of Dispersion Science and Technology</i> , 2014, 35, 1325-1338.	1.3	10
196	Prediction of Oil Production Rate Using Vapor-extraction Technique in Heavy Oil Recovery Operations. <i>Petroleum Science and Technology</i> , 2015, 33, 1764-1769.	0.7	10
197	Effect of starting composition on formation of MoSi <sub>2</sub> -SiC nanocomposite powder via ball milling. <i>Bulletin of Materials Science</i> , 2012, 35, 533-538.	0.8	9
198	Prediction of natural gas hydrate inhibitor vaporization rate using particle swarm optimization approach. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 1706-1712.	1.2	9

#	ARTICLE	IF	CITATIONS
199	Comparison of kriging, machine learning algorithms and classical thermodynamics for correlating the formation conditions for CO <sub>2</sub> gas hydrates and semi-clathrates. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 84, 103659.	2.1	9
200	Dependency of Critical Micellization Concentration of an Anionic Surfactant on Temperature and Potassium Chloride Salt. <i>Petroleum Science and Technology</i> , 2014, 32, 1913-1920.	0.7	8
201	Thermo-economic analysis and multi-objective optimization of micro-CHP Stirling system for different climates of Iran. <i>International Journal of Low-Carbon Technologies</i> , 2018, 13, 388-403.	1.2	8
202	Chemical Flooding. , 2018, , 187-205.		8
203	Analytical approach for leakage characterization in carbon sequestration in a bounded deep saline aquifer. <i>Journal of Petroleum Science and Engineering</i> , 2018, 169, 772-784.	2.1	8
204	Experimental and numerical investigations of a novel chimney system for power generation using the combination of fossil fuel power plant exhaust gases and ambient air. <i>Energy Science and Engineering</i> , 2019, 7, 764-776.	1.9	8
205	Analytical Model for Leakage Detection in CO <sub>2</sub> Sequestration in Deep Saline Aquifers: Application to ex Situ and in Situ CO <sub>2</sub> Sequestration Processes. <i>ACS Omega</i> , 2019, 4, 21381-21394.	1.6	7
206	Multi-objective optimization assessment of a new integrated scheme for co-production of natural gas liquids and liquefied natural gas. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 47, 101493.	1.7	7
207	Developing grey-box model to diagnose asphaltene stability in crude oils: Application of refractive index. <i>Petroleum</i> , 2016, 2, 369-380.	1.3	6
208	Experimental studies of ionic surfactant adsorption onto carbonate rocks. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2016, 38, 549-554.	1.2	6
209	Thermodynamic analysis and optimization of an irreversible nano scale dual cycle operating with Maxwell-Boltzmann gas. <i>Mechanics and Industry</i> , 2017, 18, 212.	0.5	6
210	Entransy analysis and optimization of irreversible Carnot-like heat engine. <i>Mechanics and Industry</i> , 2017, 18, 204.	0.5	6
211	Modeling Thermal Conductivity Ratio of CuO/Ethylene Glycol Nanofluid by Using Artificial Neural Network. <i>Defect and Diffusion Forum</i> , 2018, 388, 39-43.	0.4	6
212	Estimation of water content of natural gases using particle swarm optimization method. <i>Petroleum Science and Technology</i> , 2016, 34, 595-600.	0.7	5
213	Optimization performance of irreversible refrigerators base on evolutionary algorithm. <i>Mechanics and Industry</i> , 2016, 17, 209.	0.5	5
214	Solar radiation prediction based on ICA and HGAPSO for Kuhin City, Iran. <i>Mechanics and Industry</i> , 2016, 17, 509.	0.5	5
215	Estimation of water-hydrocarbon mutual solubility in gas processing operations using an intelligent model. <i>Petroleum Science and Technology</i> , 2016, 34, 328-334.	0.7	5
216	A cutting edge solution to monitor formation damage due to scale deposition: Application to oil recovery. <i>Canadian Journal of Chemical Engineering</i> , 2017, 95, 991-1003.	0.9	5

#	ARTICLE	IF	CITATIONS
217	Investigation of the effects of ambient temperature and dimensional parameters on the performance of solar chimney power plants. International Journal of Low-Carbon Technologies, 0, , 1-14.	1.2	5
218	Enhancing and multi-objective optimising of the performance of Stirling engine using third-order thermodynamic analysis. International Journal of Ambient Energy, 2018, 39, 382-391.	1.4	5
219	Application Fuzzy Decision Tree Analysis for Prediction Condensate Gas Ratio: Case Study. International Journal of Computer Applications, 2012, 39, 23-28.	0.2	4
220	Data Analytics Techniques for Performance Prediction of Steamflooding in Naturally Fractured Carbonate Reservoirs. Energies, 2018, 11, 292.	1.6	4
221	Investigation and modeling of energy consumption of tall office buildings in Iran's 'hot-arid' and 'cold' climate conditions. International Journal of Low-Carbon Technologies, 2021, 16, 21-34.	1.2	4
222	Evolving ICA and HGAPSO algorithms for prediction of outlet temperatures of constructed solar chimney. International Journal of Low-Carbon Technologies, 2016, , ctw008.	1.2	3
223	Equilibrium ratio of hydrocarbons and non-hydrocarbons at reservoir conditions: Experimental and modeling study. Fuel, 2017, 210, 315-328.	3.4	3
224	Spotlight on the use of new natural surfactants in colloidal gas aphron (CGA) fluids: A mechanistic study. European Physical Journal Plus, 2017, 132, 1.	1.2	3
225	Analysis of gas production data via an intelligent model: application to natural gas production. First Break, 2018, 36, 91-98.	0.2	3
226	Determination of Drainage Area and Shape Factor of Vertical Wells in Naturally Fracture Reservoir with Help Well testing and Developed IPR Curve. , 2013, , .		2
227	Thermodynamic optimisation of irreversible refrigerators base on NSGAll. International Journal of Renewable Energy Technology, 2015, 6, 261.	0.2	2
228	Gas Hydrates. , 2017, , 405-444.		2
229	New efficient tool diagnoses asphaltene stability: Utilization of refractive index. Canadian Journal of Chemical Engineering, 2019, 97, 1939-1948.	0.9	2
230	Retrograde Gas Condensate. , 2017, , 333-404.		1
231	Characterization of Shale Gas. , 2017, , 445-481.		1
232	Characterization of Shale Oil. , 2017, , 483-519.		1
233	Enhanced Oil Recovery (EOR) in Shale Oil Reservoirs. , 2018, , 269-290.		1
234	Numerical modeling of robust production scenarios from shared oil reservoirs. Journal of Petroleum Exploration and Production, 2015, 5, 55-71.	1.2	0

#	ARTICLE	IF	CITATIONS
235	Fluid Sampling. , 2017, , 293-332.		0
236	Energetic Study of Gasification System for Bio-Waste as Renewable Energy Resource: Case Study. Defect and Diffusion Forum, 0, 388, 44-60.	0.4	0
237	Analysis Of Gas Production Data Via An Intelligent Model: Application Natural Gas Production. , 2018, , .		0
238	Waterflooding. , 2018, , 207-231.		0
239	Implementation Of Meta Heuristic Algorithm And Pressure Match Method To Observe Aquifer Constant In Retrograde Gas Condensate Reservoirs. , 2018, , .		0