Ehsan Khamehchi

List of Publications by Year
in descending order

78 papers	1,149 citations	394286 19 h-index	501076 28 g-index
80 all docs	80 docs citations	80 times ranked	802 citing authors

#	Article	IF	Citations
1	Sperm whale algorithm: An effective metaheuristic algorithm for production optimization problems. Journal of Natural Gas Science and Engineering, 2016, 29, 211-222.	2.1	68
2	Rain optimization algorithm (ROA): A new metaheuristic method for drilling optimization solutions. Journal of Petroleum Science and Engineering, 2020, 195, 107512.	2.1	54
3	Novel statistical forecasting models for crude oil price, gas price, and interest rate based on meta-heuristic bat algorithm. Journal of Petroleum Science and Engineering, 2019, 172, 13-22.	2.1	50
4	Well placement optimization using metaheuristic bat algorithm. Journal of Petroleum Science and Engineering, 2017, 150, 348-354.	2.1	44
5	A novel approach to sand production prediction using artificial intelligence. Journal of Petroleum Science and Engineering, 2014, 123, 147-154.	2.1	42
6	Experimental and simulation study of low salinity brine interactions with carbonate rocks. Journal of Petroleum Science and Engineering, 2020, 184, 106497.	2.1	35
7	Sand production prediction using ratio of shear modulus to bulk compressibility (case study). Egyptian Journal of Petroleum, 2015, 24, 113-118.	1.2	30
8	Stabilizing gas lift optimization with different amounts of available lift gas. Journal of Natural Gas Science and Engineering, 2015, 26, 18-27.	2.1	29
9	Developing a novel workflow for natural gas lift optimization using advanced support vector machine. Journal of Natural Gas Science and Engineering, 2016, 28, 626-638.	2.1	29
10	Novel empirical correlations for estimation of bubble point pressure, saturated viscosity and gas solubility of crude oils. Petroleum Science, 2009, 6, 86-90.	2.4	28
11	Estimation of dynamic viscosity of natural gas based on genetic programming methodology. Journal of Natural Gas Science and Engineering, 2014, 21, 1025-1031.	2.1	28
12	A modified neural network model for predicting the crude oil price. Intellectual Economics, 2016, 10, 71-77.	0.3	28
13	A Novel Approach to the Gas-Lift Allocation Optimization Problem. Petroleum Science and Technology, 2011, 29, 418-427.	0.7	27
14	Nonlinear Risk Optimization Approach to Gas Lift Allocation Optimization. Industrial & Engineering Chemistry Research, 2012, 51, 2637-2643.	1.8	27
15	Cutting transport efficiency prediction using probabilistic CFD and DOE techniques. Journal of Petroleum Science and Engineering, 2018, 163, 58-66.	2.1	27
16	Prediction of pressure in different two-phase flow conditions: Machine learning applications. Measurement: Journal of the International Measurement Confederation, 2021, 173, 108665.	2.5	26
17	Rheological properties of Aphron based drilling fluids. Petroleum Exploration and Development, 2016, 43, 1076-1081.	3.0	22
18	A mechanistic study of smart water injection in the presence of nanoparticles for sand production control in unconsolidated sandstone reservoirs. Journal of Molecular Liquids, 2020, 319, 114210.	2.3	22

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19	Choosing an optimum sand control method. Egyptian Journal of Petroleum, 2015, 24, 193-202.	1.2	21
20	A robust model for computing pressure drop in vertical multiphase flow. Journal of Natural Gas Science and Engineering, 2015, 26, 1306-1316.	2.1	21
21	Application of DOE and metaheuristic bat algorithm for well placement and individual well controls optimization. Journal of Natural Gas Science and Engineering, 2017, 46, 47-58.	2.1	21
22	Optimum selection of sand control method using a combination of MCDM and DOE techniques. Journal of Petroleum Science and Engineering, 2018, 171, 229-241.	2.1	20
23	A simulation study of the enhancement of condensate recovery from one of the Iranian naturally fractured condensate reservoirs. Journal of Petroleum Science and Engineering, 2012, 92-93, 158-166.	2.1	19
24	A Surrogate Integrated Production Modeling Approach to Long-Term Gas-Lift Allocation Optimization. Chemical Engineering Communications, 2015, 202, 647-654.	1.5	18
25	Modeling of micro-bubble surfactant multi-layer drilling fluid stability based on single bubble behavior under pressure and temperature in a deviated gas well. Journal of Natural Gas Science and Engineering, 2015, 26, 42-50.	2.1	17
26	A rigorous approach to scale formation and deposition modelling in geothermal wellbores. Geothermics, 2020, 87, 101841.	1.5	16
27	The Prediction of Asphaltene Adsorption Isotherm Constants on Mineral Surfaces. Petroleum Science and Technology, 2014, 32, 870-877.	0.7	15
28	A novel model for predicting the temperature profile in gas lift wells. Petroleum, 2016, 2, 408-414.	1.3	15
29	Nonlinear risk optimization approach to water drive gas reservoir production optimization using DOE and artificial intelligence. Journal of Natural Gas Science and Engineering, 2016, 31, 575-584.	2.1	14
30	Optimization and treatment of wastewater of crude oil desalting unit and prediction of scale formation. Environmental Science and Pollution Research, 2019, 26, 25621-25640.	2.7	14
31	Modeling viscosity of light and intermediate dead oil systems using advanced computational frameworks and artificial neural networks. Journal of Petroleum Science and Engineering, 2020, 193, 107388.	2.1	14
32	Intelligent System for Continuous Gas Lift Operation and Design with Unlimited Gas Supply. Journal of Applied Sciences, 2009, 9, 1889-1897.	0.1	14
33	A model for predicting size distribution and liquid drainage from micro-bubble surfactant multi-layer fluids using population balance. Colloid and Polymer Science, 2015, 293, 3419-3427.	1.0	13
34	Experimental investigation of the oil based Aphron drilling fluid for determining the most stable fluid formulation. Journal of Petroleum Science and Engineering, 2019, 174, 525-532.	2.1	13
35	Experimental investigation of competitive mechanisms of precipitation and dissolution due to seawater and low salinity water injection in carbonate reservoirs. Journal of Molecular Liquids, 2021, 324, 114767.	2.3	13
36	Stability Modeling of Water-Based Surfactant Covered Micro-bubble Fluids. Journal of Surfactants and Detergents, 2016, 19, 165-171.	1.0	12

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37	A new theory for modeling transport and deposition of solid particles in oil and gas wells and pipelines. International Journal of Heat and Mass Transfer, 2020, 152, 119568.	2.5	12
38	Investigation of permeability decline due to coupled precipitation/dissolution mechanism in carbonate rocks during low salinity co-water injection. Energy Reports, 2021, 7, 125-135.	2.5	12
39	Design of smart water composition based on scale minimization and its effect on wettability alteration in the presence of nanoparticles and mineral scales. Journal of Petroleum Science and Engineering, 2021, 196, 107832.	2.1	11
40	Investigation of sand production prediction shortcomings in terms of numerical uncertainties and experimental simplifications. Journal of Petroleum Science and Engineering, 2021, 207, 109147.	2.1	11
41	A Nonlinear Approach to Gas Lift Allocation Optimization With Operational Constraints Using Particle Swarm Optimization and a Penalty Function. Petroleum Science and Technology, 2012, 30, 775-785.	0.7	10
42	TOWARD PREDICTIVE MODELS FOR ESTIMATION OF BUBBLE-POINT PRESSURE AND FORMATION VOLUME FACTOR OF CRUDE OIL USING AN INTELLIGENT APPROACH. Brazilian Journal of Chemical Engineering, 2016, 33, 1083-1090.	0.7	10
43	New predictive method for estimation of natural gas hydrate formation temperature using genetic programming. Neural Computing and Applications, 2019, 31, 2485-2494.	3.2	10
44	A novel packer fluid for completing HP/HT oil and gas wells. Journal of Petroleum Science and Engineering, 2021, 203, 108538.	2.1	10
45	A Novel Approach to Assist History Matching Using Artificial Intelligence. Chemical Engineering Communications, 2015, 202, 513-519.	1.5	9
46	Mathematical modeling of the colloidal gas aphron motion through porous medium, including colloidal bubble generation and destruction. Colloid and Polymer Science, 2016, 294, 1075-1085.	1.0	8
47	Mathematical modeling of the Colloidal Gas Aphron transport through porous medium using the filtration theory. Journal of Natural Gas Science and Engineering, 2017, 44, 37-53.	2.1	8
48	Experimental Investigation of Water Based Colloidal Gas Aphron Fluid Stability. Colloids and Interfaces, 2019, 3, 31.	0.9	8
49	An experimental investigation of the proportion of mortar components on physical and geomechanical characteristics of unconsolidated artificial reservoir sandstones. Journal of Petroleum Science and Engineering, 2020, 189, 107022.	2.1	8
50	Numerical Prediction of Temperature Profile during Gas Lifting. Petroleum Science and Technology, 2011, 29, 1305-1316.	0.7	7
51	Investigation of hydrocarbon and non-hydrocarbon (CO2, N2) gas injection on enhanced oil recovery in one of the Iranian oil fields. Journal of Petroleum Exploration and Production, 2012, 2, 209-222.	1.2	7
52	Using modern heuristic algorithms for optimal control of a gas lifted field. Journal of Petroleum Science and Engineering, 2019, 183, 106348.	2.1	7
53	Rock wettability effect on Colloidal Gas Aphron invasion near wellbore region. Journal of Petroleum Science and Engineering, 2020, 189, 106766.	2.1	7
54	Laboratory evaluation of a novel multifunctional chemical solution for asphaltene precipitation and aggregation problem: Comparison with an industrial chemical solution. Journal of Petroleum Science and Engineering, 2020, 193, 107340.	2.1	7

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55	A case study to optimum selection of deliquification method for gas condensate well design: South Pars gas field. Ain Shams Engineering Journal, 2016, 7, 847-853.	3.5	6
56	A novel approach to oil production optimization considering asphaltene precipitation: a case study on one of the Iranian south oil wells. Journal of Petroleum Exploration and Production, 2018, 8, 1303-1317.	1.2	6
57	Experimental investigation of a novel multifunctional chemical solution on preventing asphaltene precipitation using two crude oil samples with different molecular properties. Journal of Molecular Liquids, 2020, 309, 113121.	2.3	6
58	Static and dynamic evaluation of a novel solution path on asphaltene deposition and drag reduction in flowlines: An experimental study. Journal of Petroleum Science and Engineering, 2021, 205, 108833.	2.1	6
59	The Use of Optimization Procedures to Estimate Minimum Miscibility Pressure. Petroleum Science and Technology, 2014, 32, 947-957.	0.7	5
60	A Nonlinear Programming Approach to Gas Lift Allocation Optimization. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2015, 37, 453-461.	1.2	5
61	Numerical and experimental investigation of micro-bubble fluid infiltration in porous media. Colloid and Polymer Science, 2017, 295, 529-541.	1.0	5
62	Fuzzy logic coupled with exhaustive search algorithm for forecasting of petroleum economic parameters. Journal of Petroleum Science and Engineering, 2019, 176, 291-298.	2.1	5
63	A robust method for estimating the two-phase flow rate of oil and gas using wellhead data. Journal of Petroleum Exploration and Production, 2020, 10, 2335-2347.	1.2	5
64	History matching using traditional and finite size ensemble Kalman filter. Journal of Natural Gas Science and Engineering, 2015, 27, 1748-1757.	2.1	4
65	An Introduction to Gas Lift. SpringerBriefs in Petroleum Geoscience & Engineering, 2017, , 1-5.	0.1	4
66	A rigorous approach to uncertain production optimization using a hybrid algorithm: Combination of a meta-heuristic and a Quasi-Newton method. Journal of Petroleum Science and Engineering, 2020, 195, 107924.	2.1	3
67	Prediction of the Influence of Liquid Loading on Wellhead Parameters. Petroleum Science and Technology, 2014, 32, 1680-1689.	0.7	2
68	Optimization Algorithms. SpringerBriefs in Petroleum Geoscience & Engineering, 2017, , 35-46.	0.1	2
69	Application of Optimized Least Square Support Vector Machine and Genetic Programming for Accurate Estimation of Drilling Rate of Penetration. International Journal of Energy Optimization and Engineering, 2018, 7, 92-108.	0.4	2
70	Integrated production optimization of an oil field based on constructing of a proxy model using DOE methods. Journal of Petroleum Exploration and Production, 2020, 10, 2465-2482.	1.2	2
71	Accurate artificial intelligence-based methods in predicting bottom-hole pressure in multiphase flow wells, a comparison approach. Arabian Journal of Geosciences, 2021, 14, 1.	0.6	2
72	Precipitation/dissolution and precipitants movement mechanisms effects on injectivity variations during diluted produced water re-injection into a layered reservoir - experimental investigation. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-19.	1.2	2

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73	Constraint Optimization. SpringerBriefs in Petroleum Geoscience & Engineering, 2017, , 25-34.	0.1	1
74	Using linear–quadratic regulator to optimally control the gas lift operation. Arabian Journal of Geosciences, 2021, 14, 1.	0.6	1
75	A modified optimization procedure for production and injection scheduling in an oil field using second derivative methods. Arabian Journal of Geosciences, 2021, 14, 1.	0.6	1
76	Reservoir Modeling by Data Integration via Intermediate Spaces and Artificial Intelligence Tools in MPS Simulation Frameworks. Natural Resources Research, 2013, 22, 321-336.	2.2	0
77	The Fitness Function of Gas Allocation Optimization. SpringerBriefs in Petroleum Geoscience & Engineering, 2017, , 7-23.	0.1	0
78	Numerical Investigation of Excess Capillary Pressure Created by Dry-Out and Replenishment Phenomenon in Geothermal Reservoirs. Transport in Porous Media, 2021, 139, 559.	1.2	0