

# Rouhi Farajzadeh

## List of Publications by Year in descending order

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134  
papers

4,998  
citations

81900

39  
h-index

106344

65  
g-index

134  
all docs

134  
docs citations

134  
times ranked

2095  
citing authors

#	ARTICLE	IF	CITATIONS
1	Insights into oil recovery mechanism by Non-alternating-Polymer (NAP) concept. Journal of Petroleum Science and Engineering, 2022, 211, 110114.	4.2	6
2	Experimental Assessment of the Viability of High Temperature Steam Foam Applications. , 2022, , . A comparative study for H <sub>2</sub> & CH <sub>4</sub> mixture wettability in sand		2
3	Experimental Assessment of the Viability of High Temperature Steam Foam Applications. , 2022, , . A comparative study for H <sub>2</sub> & CH <sub>4</sub> mixture wettability in sand	3.8	48
4	Potential and Challenges of Foam-Assisted CO <sub>2</sub> Sequestration. , 2022, , .		9
5	Microfluidics-based analysis of dynamic contact angles relevant for underground hydrogen storage. Advances in Water Resources, 2022, 164, 104221.	3.8	33
6	Chemical enhanced oil recovery and the dilemma of more and cleaner energy. Scientific Reports, 2021, 11, 829.	3.3	35
7	Distinguishing the Effect of Rock Wettability from Residual Oil on Foam Generation and Propagation in Porous Media. Energy & Fuels, 2021, 35, 7681-7692.	5.1	9
8	Contact angle measurement for hydrogen/brine/sandstone system using captive-bubble method relevant for underground hydrogen storage. Advances in Water Resources, 2021, 154, 103964.	3.8	107
9	Laboratory Investigation of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. Transport in Porous Media, 2020, 131, 85-99.	2.6	11
10	Editorial to the Special Issue: Foam in Porous Media for Petroleum and Environmental Engineering—Experience Sharing. Transport in Porous Media, 2020, 131, 1-3.	2.6	8
11	Effect of superficial velocity on liquid injectivity in SAG foam EOR. Part 1: Experimental study. Fuel, 2020, 278, 118299.	6.4	3
12	Process-based upscaling of reactive flow in geological formations. International Journal of Heat and Mass Transfer, 2020, 157, 119969.	4.8	7
13	Role of Wettability on the Adsorption of an Anionic Surfactant on Sandstone Cores. Langmuir, 2020, 36, 10725-10738.	3.5	39
14	Impact of Mechanical Entrapment on the Design of Mobility Control in Chemical Enhanced Oil Recovery. , 2020, , .		0
15	Injectivity of Multiple Slugs in Surfactant Alternating Gas Foam EOR: A CT Scan Study. SPE Journal, 2020, 25, 895-906.	3.1	13
16	Effect of superficial velocity on liquid injectivity in SAG foam EOR. Part 2: Modelling. Fuel, 2020, 279, 118302.	6.4	8
17	On the sustainability of CO <sub>2</sub> storage through CO <sub>2</sub> Enhanced oil recovery. Applied Energy, 2020, 261, 114467.	10.1	95
18	Impact of Microheterogeneity on Upscaling Reactive Transport in Geothermal Energy. ACS Earth and Space Chemistry, 2019, 3, 2045-2057.	2.7	25

#	ARTICLE	IF	CITATIONS
19	Life-cycle production optimization of hydrocarbon fields: thermoeconomics perspective. Sustainable Energy and Fuels, 2019, 3, 3050-3060.	4.9	18
20	Sustainable production of hydrocarbon fields guided by full-cycle exergy analysis. Journal of Petroleum Science and Engineering, 2019, 181, 106204.	4.2	13
21	Life-cycle assessment of water injection into hydrocarbon reservoirs using exergy concept. Journal of Cleaner Production, 2019, 235, 812-821.	9.3	26
22	Exergy return on exergy investment analysis of natural-polymer (Guar-Arabic gum) enhanced oil recovery process. Energy, 2019, 181, 162-172.	8.8	36
23	Insights into design of mobility control for chemical enhanced oil recovery. Energy Reports, 2019, 5, 570-578.	5.1	42
24	Modeling of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. SPE Journal, 2019, 24, 1123-1138.	3.1	11
25	Integrated Approach for Analysis and Forecasting of Chemical EOR Recoveries in Sultanate of Oman. , 2019, , .		3
26	A 2-D simulation study on CO <sub>2</sub> soluble surfactant for foam enhanced oil recovery. Journal of Industrial and Engineering Chemistry, 2019, 72, 133-143.	5.8	18
27	Insights into Effects of Surfactant Concentration on Foam Behavior in Porous Media. Energy & Fuels, 2019, 33, 822-829.	5.1	26
28	Influence of foam on the stability characteristics of immiscible flow in porous media. Physics of Fluids, 2018, 30, 014106.	4.0	7
29	Modelling of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. , 2018, , .		4
30	Effects of compositional variations on CO <sub>2</sub> foam under miscible conditions. AIChE Journal, 2018, 64, 758-764.	3.6	15
31	Probing the Effect of Oil Type and Saturation on Foam Flow in Porous Media: Core-Flooding and Nuclear Magnetic Resonance (NMR) Imaging. Energy & Fuels, 2018, 32, 11177-11189.	5.1	41
32	Foam Diversion in Heterogeneous Reservoirs: Effect of Permeability and Injection Method. SPE Journal, 2017, 22, 1402-1415.	3.1	29
33	Cation Exchange in the Presence of Oil in Porous Media. ACS Earth and Space Chemistry, 2017, 1, 101-112.	2.7	60
34	Influence of Foam on the Stability Characteristics of Immiscible Flow in Porous Media. , 2017, , .		1
35	Effect of Foam on Liquid Phase Mobility in Porous Media. Scientific Reports, 2017, 7, 43870.	3.3	49
36	Experimental Study of Hysteresis behavior of Foam Generation in Porous Media. Scientific Reports, 2017, 7, 8986.	3.3	48

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37	Effect of permeability on foam-model parameters: An integrated approach from core-flood experiments through to foam diversion calculations. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 530, 172-180.	4.7	45
38	Investigation of pressure transient behaviour during Injection Fall-Off (IFO) test in foam flooding. Journal of Petroleum Science and Engineering, 2017, 149, 860-872.	4.2	3
39	Experimental Study of Hysteresis Behavior of Foam in Porous Media. , 2017, , .		2
40	Effects of Compositional Variations on CO2 Foam Under Miscible Conditions. , 2017, , .		1
41	Mechanistic Simulation of Polymer Injectivity in Field Tests. SPE Journal, 2016, 21, 1178-1191.	3.1	60
42	Simultaneous sorption and mechanical entrapment during polymer flow through porous media. Water Resources Research, 2016, 52, 2279-2298.	4.2	40
43	Effect of temperature on foam flow in porous media. Journal of Industrial and Engineering Chemistry, 2016, 36, 229-237.	5.8	71
44	Comparison of implicit-texture and population-balance foam models. Journal of Natural Gas Science and Engineering, 2016, 31, 184-197.	4.4	53
45	Effect of surfactant concentration on foam: From coreflood experiments to implicit-texture foam-model parameters. Journal of Industrial and Engineering Chemistry, 2016, 37, 268-276.	5.8	67
46	Surfactant screening for foam EOR: Correlation between bulk and core-flood experiments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 500, 166-176.	4.7	100
47	Experimental investigation of the use of the dimethyl ether/polymer hybrid as a novel enhanced oil recovery method. Journal of Industrial and Engineering Chemistry, 2016, 38, 50-60.	5.8	19
48	A Novel Enhanced Oil Recovery Technology Using Dimethyl Ether/Brine: Spontaneous Imbibition in Sandstone and Carbonate Rocks. , 2016, , .		10
49	Simulation of instabilities and fingering in surfactant alternating gas (SAG) foam enhanced oil recovery. Journal of Natural Gas Science and Engineering, 2016, 34, 1191-1204.	4.4	34
50	Insights on Foam Transport from a Texture-Implicit Local-Equilibrium Model with an Improved Parameter Estimation Algorithm. Industrial & Engineering Chemistry Research, 2016, 55, 7819-7829.	3.7	65
51	Effect of Surfactant Partitioning Between Gaseous Phase and Aqueous Phase on $\text{CO}_2$ Foam Transport for Enhanced Oil Recovery. Transport in Porous Media, 2016, 114, 777-793.	2.6	40
52	Comparison of Implicit-Texture and Population-Balance Foam Models. , 2016, , .		6
53	Role of Gas Type on Foam Transport in Porous Media. Langmuir, 2016, 32, 6239-6245.	3.5	79
54	Surfactant Effect On Foam: From Core Flood Experiments To Implicit-Texture Foam-Model Parameters. , 2016, , .		15

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55	Effect of Foam on Liquid Phase Mobility in Porous Media. , 2016, , .		2
56	Analytical solutions of oil displacement by a polymer slug with varying salinity. Journal of Petroleum Science and Engineering, 2016, 140, 28-40.	4.2	35
57	Effect of fines migration on oilâ€™water relative permeability during two-phase flow in porous media. Fuel, 2016, 176, 222-236.	6.4	97
58	Coupled Geochemical-Reservoir Model to Understand the Interaction Between Low Salinity Brines and Carbonate Rock. , 2015, , .		28
59	Mechanistic Simulation of Polymer Injectivity in Field Tests. , 2015, , .		14
60	A Four-Phase Flow Model to Simulate Chemical EOR with Gas. , 2015, , .		8
61	Foam Stabilized by Fly-Ash Nanoparticles for Enhancing Oil Recovery. , 2015, , .		5
62	Simultaneous Sorption and Mechanical Entrapment During Polymer Flow Through Porous Media. , 2015, , .		10
63	Effect of Matrix Wettability CO2 Assisted Gas-oil Gravity Drainage in Naturally Fractured Reservoirs. , 2015, , .		0
64	Small Core Flood Experiments for Foam EOR - Screening Surfactant Applications. , 2015, , .		7
65	Development of a hybrid black-oil/surfactant enhanced oil recovery reservoir simulator. Journal of Petroleum Science and Engineering, 2015, 133, 130-146.	4.2	8
66	Effect of Temperature on Foam Flow in Porous Media. , 2015, , .		13
67	Simulation of Instabilities and Fingering in Surfactant Alternating Gas (SAG) Foam Enhanced Oil Recovery. , 2015, , .		3
68	Mathematical Modelling of Non-Uniform External Cake Profile in Long Injection Wells. , 2015, , .		4
69	Foam Stabilized by Fly Ash Nanoparticles for Enhancing Oil Recovery. Industrial & Engineering Chemistry Research, 2015, 54, 12482-12491.	3.7	86
70	Nonuniform External Filter Cake in Long Injection Wells. Industrial & Engineering Chemistry Research, 2015, 54, 3051-3061.	3.7	39
71	Effect of Permeability on Implicit-Texture Foam Model Parameters and the Limiting Capillary Pressure. Energy & Fuels, 2015, 29, 3011-3018.	5.1	146
72	Dynamic Interactions between Matrix and Fracture during Miscible Gravity Drainage in Naturally Fractured Reservoirs. Industrial & Engineering Chemistry Research, 2015, 54, 5356-5371.	3.7	5

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73	Effect of Permeability on Foam-model parameters - An Integrated Approach from Coreflood Experiments through to Foam Diversion Calculations. , 2015, , .		18
74	Effect of Gas Permeability and Solubility on Foam. Journal of Soft Matter, 2014, 2014, 1-7.	1.7	36
75	Exact Solution for Non-Self-Similar Wave-Interaction Problem during Two-Phase Four-Component Flow in Porous Media. Abstract and Applied Analysis, 2014, 2014, 1-13.	0.7	7
76	Non-uniqueness, Numerical Artifacts, and Parameter Sensitivity in Simulating Steady-State and Transient Foam Flow Through Porous Media. Transport in Porous Media, 2014, 102, 325-348.	2.6	60
77	Visualization and investigation of natural convection flow of CO <sub>2</sub> in aqueous and oleic systems. Journal of Petroleum Science and Engineering, 2014, 122, 230-239.	4.2	50
78	Numerical Simulation of Mutually Soluble Solvent-aided Spontaneous Imbibition in Fractured Reservoirs. , 2014, , .		4
79	Effect of Non-equilibrium Gas Injection on the Performance of (Immiscible and Miscible) Gas-Oil Gravity Drainage in Naturally Fractured Reservoirs. Energy & Fuels, 2013, 27, 6055-6067.	5.1	16
80	Effect of Continuous, Trapped, and Flowing Gas on Performance of Alkaline Surfactant Polymer (ASP) Flooding. Industrial & Engineering Chemistry Research, 2013, 52, 13839-13848.	3.7	16
81	Investigation on Interfacial Interactions among Crude Oil-Brine-Sandstone Rock-CO <sub>2</sub> by Contact Angle Measurements. Energy & Fuels, 2013, 27, 1015-1025.	5.1	79
82	An empirical theory for gravitationally unstable flow in porous media. Computational Geosciences, 2013, 17, 515-527.	2.4	34
83	Solvent-enhanced Spontaneous Imbibition in Fractured Reservoirs. , 2013, , .		16
84	Modeling Gas Solubility in Water for Foam Propagation in Porous Media. , 2013, , .		3
85	The effect of interface movement and viscosity variation on the stability of a diffusive interface between aqueous and gaseous CO <sub>2</sub> . Physics of Fluids, 2013, 25, .	4.0	38
86	Estimation of Parameters for the Simulation of Foam Flow through Porous Media: Part 3; Non-Uniqueness, Numerical Artifact and Sensitivity. , 2013, , .		7
87	Effect of Continuous, Trapped, and Flowing Gas on Performance of Alkaline Surfactant Polymer ASP Flooding. , 2013, , .		4
88	Dynamic Interactions between Matrix and Fracture in Miscible Solvent Flooding of Fractured Reservoirs. , 2013, , .		1
89	Detailed Modeling of the Alkali/Surfactant/Polymer (ASP) Process by Coupling a Multipurpose Reservoir Simulator to the Chemistry Package PHREEQC. SPE Reservoir Evaluation and Engineering, 2012, 15, 423-435.	1.8	40
90	Foam-Oil Interaction in Porous Media: Implications for Foam Assisted Enhanced Oil Recovery. , 2012, , .		37

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91	Experimental and Numerical Investigation on the Performance of Gas Oil Gravity Drainage at Different Miscibility Conditions. , 2012, , .		8
92	Gravity-Enhanced Transfer between Fracture and Matrix in Solvent-Based Enhanced Oil Recovery. , 2012, , .		2
93	Numerical Simulation of Natural Convection in Heterogeneous Porous media for CO2 Geological Storage. Transport in Porous Media, 2012, 95, 25-54.	2.6	63
94	Foam-oil interaction in porous media: Implications for foam assisted enhanced oil recovery. Advances in Colloid and Interface Science, 2012, 183-184, 1-13.	14.7	384
95	Gravity-Enhanced Transfer between Fracture and Matrix in Solvent-Based Enhanced Oil Recovery. Industrial & Engineering Chemistry Research, 2012, 51, 14555-14565.	3.7	27
96	Foam assisted gas-oil gravity drainage in naturally-fractured reservoirs. Journal of Petroleum Science and Engineering, 2012, 94-95, 112-122.	4.2	64
97	Immiscible Foam for Enhancing Oil Recovery: Bulk and Porous Media Experiments. Industrial & Engineering Chemistry Research, 2012, 51, 2214-2226.	3.7	203
98	An Analytical Method for Predicting the Performance of Gravitationally-Unstable Flow in Porous Media. , 2011, , .		4
99	Immiscible Foam for Enhancing Oil Recovery: Bulk and Porous Media Experiments. , 2011, , .		154
100	Selecting the "Right" ASP Model by History Matching Coreflood Experiments. , 2011, , .		19
101	Detailed Modeling of the Alkali Surfactant Polymer (ASP) Process by Coupling a Multi-purpose Reservoir Simulator to the Chemistry Package PHREEQC. , 2011, , .		7
102	Visualization of Natural Convection Flow of (Sub-) and (Super-) Critical CO2 in Aqueous and Oleic Systems by Applying Schlieren Method. , 2011, , .		9
103	Effect of gas type on foam film permeability and its implications for foam flow in porous media. Advances in Colloid and Interface Science, 2011, 168, 71-78.	14.7	75
104	The effect of heterogeneity on the character of density-driven natural convection of CO2 overlying a brine layer. Advances in Water Resources, 2011, 34, 327-339.	3.8	103
105	Selecting the "Right" ASP Model by History Matching Core Flood Experiments. , 2011, , .		8
106	Modeling of Alkali Surfactant Polymer Process by Coupling a Multi-purpose Simulator to the Chemistry Package PHREEQC. , 2011, , .		2
107	An Alternative Mechanistic Model for Permeability Changes of Coalbeds During Primary Recovery of Methane. , 2010, , .		3
108	Effect of Gas Type on Foam Film Permeability and Its Implications for Foam Flow in Porous Media. , 2010, , .		8

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109	The Effect of Heterogeneity on the Character of Density-Driven Natural Convection of CO <sub>2</sub> Overlying a Brine Layer. , 2010, , .		2
110	Investigation of Immiscible and Miscible Foam for Enhancing Oil Recovery. Industrial & Engineering Chemistry Research, 2010, 49, 1910-1919.	3.7	222
111	Foam Assisted Gas Oil Gravity Drainage in Naturally-Fractured Reservoirs. , 2010, , .		17
112	Modeling of External Filter Cake Build-up in Radial Geometry. Petroleum Science and Technology, 2009, 27, 746-763.	1.5	37
113	Gas Permeability of Foam Films Stabilized by an $\alpha$ -Olefin Sulfonate Surfactant. Langmuir, 2009, 25, 2881-2886.	3.5	33
114	Comparative Study of CO <sub>2</sub> and N <sub>2</sub> Foams in Porous Media at Low and High Pressure and Temperatures. Industrial & Engineering Chemistry Research, 2009, 48, 4542-4552.	3.7	192
115	Enhanced Mass Transfer of CO <sub>2</sub> into Water: Experiment and Modeling. Industrial & Engineering Chemistry Research, 2009, 48, 6423-6431.	3.7	115
116	Enhanced Mass Transfer of CO <sub>2</sub> into Water: Experiment and Modeling. , 2009, , .		1
117	Foam Assisted Enhanced Oil Recovery at Miscible and Immiscible Conditions. , 2009, , .		13
118	New Insights into Application of Foam for Acid Diversion. , 2009, , .		2
119	A CT Scan Study of Foam Flooding in Porous Media. , 2009, , .		2
120	Surfactant Induced Solubilization and Transfer Resistance in Gas-Water and Gas-Oil Systems. , 2009, , .		0
121	Foam films stabilized with alpha olefin sulfonate (AOS). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 324, 35-40.	4.7	100
122	Foam film permeability: Theory and experiment. Advances in Colloid and Interface Science, 2008, 137, 27-44.	14.7	70
123	Effect of Water Solubility on Carbon Dioxide Foam Flow in Porous Media: An X-ray Computed Tomography Study. Industrial & Engineering Chemistry Research, 2008, 47, 6298-6306.	3.7	92
124	Gas Permeability of Foam Films Stabilized by an Alpha Olefin Sulfonate (AOS) Surfactant. AIP Conference Proceedings, 2008, , .	0.4	0
125	Foam Modeling in Heterogeneous Reservoirs Using Stochastic Bubble Population Approach. , 2008, , .		5
126	Density-driven Natural Convection in Dual Layered and Anisotropic Porous Media with Application for CO <sub>2</sub> Injection Project. , 2008, , .		12



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127	Mass Transfer of CO <sub>2</sub> Into Water and Surfactant Solutions. Petroleum Science and Technology, 2007, 25, 1493-1511.	1.5	81
128	Modeling and CT-Scan Study of Foams for Acid Diversion. , 2007, , .		9
129	Numerical Simulation of Density-Driven Natural Convection in Porous Media with Application for CO2 Injection Projects. , 2007, , .		6
130	Enhanced Mass Transfer of CO2 Into Water and Oil by Natural Convection. , 2007, , .		12
131	Numerical simulation of density-driven natural convection in porous media with application for CO2 injection projects. International Journal of Heat and Mass Transfer, 2007, 50, 5054-5064.	4.8	155
132	New Experimental and Modelling Approach for the Quantification of Internal Filtration. , 2005, , .		15
133	External Filter Cake Erosion: Mathematical Model and Experimental Study. , 2005, , .		39
134	Filtration of micron-sized particles in granular media revealed by x-ray computed tomography. Review of Scientific Instruments, 2005, 76, 103704.	1.3	32