

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
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134
all docs

134
docs citations

134
times ranked

2095
citing authors

#	ARTICLE	IF	CITATIONS
1	Foam-oil interaction in porous media: Implications for foam assisted enhanced oil recovery. <i>Advances in Colloid and Interface Science</i> , 2012, 183-184, 1-13.	14.7	384
2	Investigation of Immiscible and Miscible Foam for Enhancing Oil Recovery. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 1910-1919.	3.7	222
3	Immiscible Foam for Enhancing Oil Recovery: Bulk and Porous Media Experiments. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 2214-2226.	3.7	203
4	Comparative Study of CO ₂ and N ₂ Foams in Porous Media at Low and High Pressure-Temperatures. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 4542-4552.	3.7	192
5	Numerical simulation of density-driven natural convection in porous media with application for CO ₂ injection projects. <i>International Journal of Heat and Mass Transfer</i> , 2007, 50, 5054-5064.	4.8	155
6	Immiscible Foam for Enhancing Oil Recovery: Bulk and Porous Media Experiments. , 2011, , .		154
7	Effect of Permeability on Implicit-Texture Foam Model Parameters and the Limiting Capillary Pressure. <i>Energy & Fuels</i> , 2015, 29, 3011-3018.	5.1	146
8	Enhanced Mass Transfer of CO ₂ into Water: Experiment and Modeling. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 6423-6431.	3.7	115
9	Contact angle measurement for hydrogen/brine/sandstone system using captive-bubble method relevant for underground hydrogen storage. <i>Advances in Water Resources</i> , 2021, 154, 103964.	3.8	107
10	The effect of heterogeneity on the character of density-driven natural convection of CO ₂ overlying a brine layer. <i>Advances in Water Resources</i> , 2011, 34, 327-339.	3.8	103
11	Foam films stabilized with alpha olefin sulfonate (AOS). <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2008, 324, 35-40.	4.7	100
12	Surfactant screening for foam EOR: Correlation between bulk and core-flood experiments. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 500, 166-176.	4.7	100
13	Effect of fines migration on oil-water relative permeability during two-phase flow in porous media. <i>Fuel</i> , 2016, 176, 222-236.	6.4	97
14	On the sustainability of CO ₂ storage through CO ₂ Enhanced oil recovery. <i>Applied Energy</i> , 2020, 261, 114467.	10.1	95
15	Effect of Water Solubility on Carbon Dioxide Foam Flow in Porous Media: An X-ray Computed Tomography Study. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 6298-6306.	3.7	92
16	Foam Stabilized by Fly Ash Nanoparticles for Enhancing Oil Recovery. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 12482-12491.	3.7	86
17	Mass Transfer of CO ₂ Into Water and Surfactant Solutions. <i>Petroleum Science and Technology</i> , 2007, 25, 1493-1511.	1.5	81
18	Investigation on Interfacial Interactions among Crude Oil-Brine-Sandstone Rock-CO ₂ by Contact Angle Measurements. <i>Energy & Fuels</i> , 2013, 27, 1015-1025.	5.1	79

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19	Role of Gas Type on Foam Transport in Porous Media. Langmuir, 2016, 32, 6239-6245.	3.5	79
20	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
21	Effect of temperature on foam flow in porous media. Journal of Industrial and Engineering Chemistry, 2016, 36, 229-237.	5.8	71
22	Foam film permeability: Theory and experiment. Advances in Colloid and Interface Science, 2008, 137, 27-44.	14.7	70
23	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
24	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
25	Foam assisted gas-oil gravity drainage in naturally-fractured reservoirs. Journal of Petroleum Science and Engineering, 2012, 94-95, 112-122.	4.2	64
26	Numerical Simulation of Natural Convection in Heterogeneous Porous media for CO2 Geological Storage. Transport in Porous Media, 2012, 95, 25-54.	2.6	63
27	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
28	Mechanistic Simulation of Polymer Injectivity in Field Tests. SPE Journal, 2016, 21, 1178-1191.	3.1	60
29	Cation Exchange in the Presence of Oil in Porous Media. ACS Earth and Space Chemistry, 2017, 1, 101-112.	2.7	60
30	Comparison of implicit-texture and population-balance foam models. Journal of Natural Gas Science and Engineering, 2016, 31, 184-197.	4.4	53
31	Visualization and investigation of natural convection flow of CO2 in aqueous and oleic systems. Journal of Petroleum Science and Engineering, 2014, 122, 230-239.	4.2	50
32	Effect of Foam on Liquid Phase Mobility in Porous Media. Scientific Reports, 2017, 7, 43870.	3.3	49
33	Experimental Study of Hysteresis behavior of Foam Generation in Porous Media. Scientific Reports, 2017, 7, 8986.	3.3	48
34	A comparative study for H ₂ CH ₄ mixture wettability in porous media. Journal of Petroleum Science and Engineering, 2017, 153, 101-112.	3.8	48
35	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
36	Insights into design of mobility control for chemical enhanced oil recovery. Energy Reports, 2019, 5, 570-578.	5.1	42

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37	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
38	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
39	Simultaneous sorption and mechanical entrapment during polymer flow through porous media. Water Resources Research, 2016, 52, 2279-2298.	4.2	40
40	Effect of Surfactant Partitioning Between Gaseous Phase and Aqueous Phase on CO_2 Foam Transport for Enhanced Oil Recovery. Transport in Porous Media, 2016, 114, 777-793.	2.6	40
41	External Filter Cake Erosion: Mathematical Model and Experimental Study. , 2005, , .		39
42	Nonuniform External Filter Cake in Long Injection Wells. Industrial & Engineering Chemistry Research, 2015, 54, 3051-3061.	3.7	39
43	Role of Wettability on the Adsorption of an Anionic Surfactant on Sandstone Cores. Langmuir, 2020, 36, 10725-10738.	3.5	39
44	The effect of interface movement and viscosity variation on the stability of a diffusive interface between aqueous and gaseous CO_2 . Physics of Fluids, 2013, 25, .	4.0	38
45	Modeling of External Filter Cake Build-up in Radial Geometry. Petroleum Science and Technology, 2009, 27, 746-763.	1.5	37
46	Foam-Oil Interaction in Porous Media: Implications for Foam Assisted Enhanced Oil Recovery. , 2012, , .		37
47	Effect of Gas Permeability and Solubility on Foam. Journal of Soft Matter, 2014, 2014, 1-7.	1.7	36
48	Exergy return on exergy investment analysis of natural-polymer (Guar-Arabic gum) enhanced oil recovery process. Energy, 2019, 181, 162-172.	8.8	36
49	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
50	Chemical enhanced oil recovery and the dilemma of more and cleaner energy. Scientific Reports, 2021, 11, 829.	3.3	35
51	An empirical theory for gravitationally unstable flow in porous media. Computational Geosciences, 2013, 17, 515-527.	2.4	34
52	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
53	Gas Permeability of Foam Films Stabilized by an $\hat{\text{I}}\pm$ -Olefin Sulfonate Surfactant. Langmuir, 2009, 25, 2881-2886.	3.5	33
54	Microfluidics-based analysis of dynamic contact angles relevant for underground hydrogen storage. Advances in Water Resources, 2022, 164, 104221.	3.8	33

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55	Filtration of micron-sized particles in granular media revealed by x-ray computed tomography. Review of Scientific Instruments, 2005, 76, 103704.	1.3	32
56	Foam Diversion in Heterogeneous Reservoirs: Effect of Permeability and Injection Method. SPE Journal, 2017, 22, 1402-1415.	3.1	29
57	Coupled Geochemical-Reservoir Model to Understand the Interaction Between Low Salinity Brines and Carbonate Rock. , 2015, , .		28
58	Gravity-Enhanced Transfer between Fracture and Matrix in Solvent-Based Enhanced Oil Recovery. Industrial & Engineering Chemistry Research, 2012, 51, 14555-14565.	3.7	27
59	Life-cycle assessment of water injection into hydrocarbon reservoirs using exergy concept. Journal of Cleaner Production, 2019, 235, 812-821.	9.3	26
60	Insights into Effects of Surfactant Concentration on Foam Behavior in Porous Media. Energy & Fuels, 2019, 33, 822-829.	5.1	26
61	Impact of Microheterogeneity on Upscaling Reactive Transport in Geothermal Energy. ACS Earth and Space Chemistry, 2019, 3, 2045-2057.	2.7	25
62	Selecting the "Right" ASP Model by History Matching Coreflood Experiments. , 2011, , .		19
63	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
64	Life-cycle production optimization of hydrocarbon fields: thermoeconomics perspective. Sustainable Energy and Fuels, 2019, 3, 3050-3060.	4.9	18
65	A 2-D simulation study on CO2 soluble surfactant for foam enhanced oil recovery. Journal of Industrial and Engineering Chemistry, 2019, 72, 133-143.	5.8	18
66	Effect of Permeability on Foam-model parameters - An Integrated Approach from Coreflood Experiments through to Foam Diversion Calculations. , 2015, , .		18
67	Foam Assisted Gas Oil Gravity Drainage in Naturally-Fractured Reservoirs. , 2010, , .		17
68	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
69	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
70	Solvent-enhanced Spontaneous Imbibition in Fractured Reservoirs. , 2013, , .		16
71	New Experimental and Modelling Approach for the Quantification of Internal Filtration. , 2005, , .		15
72	Surfactant Effect On Foam: From Core Flood Experiments To Implicit-Texture Foam-Model Parameters. , 2016, , .		15

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73	Effects of compositional variations on CO ₂ foam under miscible conditions. AICHE Journal, 2018, 64, 758-764.	3.6	15
74	Mechanistic Simulation of Polymer Injectivity in Field Tests. , 2015, , .		14
75	Foam Assisted Enhanced Oil Recovery at Miscible and Immiscible Conditions. , 2009, , .		13
76	Effect of Temperature on Foam Flow in Porous Media. , 2015, , .		13
77	Sustainable production of hydrocarbon fields guided by full-cycle exergy analysis. Journal of Petroleum Science and Engineering, 2019, 181, 106204.	4.2	13
78	Injectivity of Multiple Slugs in Surfactant Alternating Gas Foam EOR: A CT Scan Study. SPE Journal, 2020, 25, 895-906.	3.1	13
79	Enhanced Mass Transfer of CO ₂ Into Water and Oil by Natural Convection. , 2007, , .		12
80	Density-driven Natural Convection in Dual Layered and Anisotropic Porous Media with Application for CO ₂ Injection Project. , 2008, , .		12
81	Modeling of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. SPE Journal, 2019, 24, 1123-1138.	3.1	11
82	Laboratory Investigation of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. Transport in Porous Media, 2020, 131, 85-99.	2.6	11
83	Simultaneous Sorption and Mechanical Entrapment During Polymer Flow Through Porous Media. , 2015, , .		10
84	A Novel Enhanced Oil Recovery Technology Using Dimethyl Ether/Brine: Spontaneous Imbibition in Sandstone and Carbonate Rocks. , 2016, , .		10
85	Modeling and CT-Scan Study of Foams for Acid Diversion. , 2007, , .		9
86	Visualization of Natural Convection Flow of (Sub-) and (Super-) Critical CO ₂ in Aqueous and Oleic Systems by Applying Schlieren Method. , 2011, , .		9
87	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
88	Potential and Challenges of Foam-Assisted CO ₂ Sequestration. , 2022, , .		9
89	Effect of Gas Type on Foam Film Permeability and Its Implications for Foam Flow in Porous Media. , 2010, , .		8
90	Experimental and Numerical Investigation on the Performance of Gas Oil Gravity Drainage at Different Miscibility Conditions. , 2012, , .		8

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91	A Four-Phase Flow Model to Simulate Chemical EOR with Gas. , 2015, , .		8
92	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
93	Editorial to the Special Issue: Foam in Porous Media for Petroleum and Environmental Engineeringâ€”Experience Sharing. Transport in Porous Media, 2020, 131, 1-3.	2.6	8
94	Effect of superficial velocity on liquid injectivity in SAG foam EOR. Part 2: Modelling. Fuel, 2020, 279, 118302.	6.4	8
95	Selecting the â€œRightâ€•ASP Model by History Matching Core Flood Experiments. , 2011, , .		8
96	Detailed Modeling of the Alkali Surfactant Polymer (ASP) Process by Coupling a Multi-purpose Reservoir Simulator to the Chemistry Package PHREEQC. , 2011, , .		7
97	Estimation of Parameters for the Simulation of Foam Flow through Porous Media: Part 3; Non-Uniqueness, Numerical Artifact and Sensitivity. , 2013, , .		7
98	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
99	Small Core Flood Experiments for Foam EOR - Screening Surfactant Applications. , 2015, , .		7
100	Influence of foam on the stability characteristics of immiscible flow in porous media. Physics of Fluids, 2018, 30, 014106.	4.0	7
101	Process-based upscaling of reactive flow in geological formations. International Journal of Heat and Mass Transfer, 2020, 157, 119969.	4.8	7
102	Numerical Simulation of Density-Driven Natural Convection in Porous Media with Application for CO2 Injection Projects. , 2007, , .		6
103	Comparison of Implicit-Texture and Population-Balance Foam Models. , 2016, , .		6
104	Insights into oil recovery mechanism by Nothing-Alternating-Polymer (NAP) concept. Journal of Petroleum Science and Engineering, 2022, 211, 110114.	4.2	6
105	Foam Modeling in Heterogeneous Reservoirs Using Stochastic Bubble Population Approach. , 2008, , .		5
106	Foam Stabilized by Fly-Ash Nanoparticles for Enhancing Oil Recovery. , 2015, , .		5
107	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
108	An Analytical Method for Predicting the Performance of Gravitationally-Unstable Flow in Porous Media. , 2011, , .		4

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109	Effect of Continuous, Trapped, and Flowing Gas on Performance of Alkaline Surfactant Polymer ASP Flooding. , 2013, , .		4
110	Mathematical Modelling of Non-Uniform External Cake Profile in Long Injection Wells. , 2015, , .		4
111	Modelling of Liquid Injectivity in Surfactant-Alternating-Gas Foam Enhanced Oil Recovery. , 2018, , .		4
112	Numerical Simulation of Mutually Soluble Solvent-aided Spontaneous Imbibition in Fractured Reservoirs. , 2014, , .		4
113	An Alternative Mechanistic Model for Permeability Changes of Coalbeds During Primary Recovery of Methane. , 2010, , .		3
114	Modeling Gas Solubility in Water for Foam Propagation in Porous Media. , 2013, , .		3
115	Simulation of Instabilities and Fingering in Surfactant Alternating Gas (SAG) Foam Enhanced Oil Recovery. , 2015, , .		3
116	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
117	Integrated Approach for Analysis and Forecasting of Chemical EOR Recoveries in Sultanate of Oman. , 2019, , .		3
118	Effect of superficial velocity on liquid injectivity in SAG foam EOR. Part 1: Experimental study. Fuel, 2020, 278, 118299.	6.4	3
119	New Insights into Application of Foam for Acid Diversion. , 2009, , .		2
120	The Effect of Heterogeneity on the Character of Density-Driven Natural Convection of CO2 Overlying a Brine Layer. , 2010, , .		2
121	Gravity-Enhanced Transfer between Fracture and Matrix in Solvent-Based Enhanced Oil Recovery. , 2012, , .		2
122	Effect of Foam on Liquid Phase Mobility in Porous Media. , 2016, , .		2
123	Experimental Study of Hysteresis Behavior of Foam in Porous Media. , 2017, , .		2
124	Modeling of Alkali Surfactant Polymer Process by Coupling a Multi-purpose Simulator to the Chemistry Package PHREEQC. , 2011, , .		2
125	A CT Scan Study of Foam Flooding in Porous Media. , 2009, , .		2
126	Experimental Assessment of the Viability of High Temperature Steam Foam Applications. , 2022, , .		2

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127	Enhanced Mass Transfer of CO ₂ into Water: Experiment and Modeling. , 2009, , .		1
128	Influence of Foam on the Stability Characteristics of Immiscible Flow in Porous Media. , 2017, , .		1
129	Effects of Compositional Variations on CO ₂ Foam Under Miscible Conditions. , 2017, , .		1
130	Dynamic Interactions between Matrix and Fracture in Miscible Solvent Flooding of Fractured Reservoirs. , 2013, , .		1
131	Gas Permeability of Foam Films Stabilized by an Alpha Olefin Sulfonate (AOS) Surfactant. AIP Conference Proceedings, 2008, , .	0.4	0
132	Effect of Matrix Wettability CO ₂ Assisted Gas-oil Gravity Drainage in Naturally Fractured Reservoirs. , 2015, , .		0
133	Impact of Mechanical Entrapment on the Design of Mobility Control in Chemical Enhanced Oil Recovery. , 2020, , .		0
134	Surfactant Induced Solubilization and Transfer Resistance in Gas-Water and Gas-Oil Systems. , 2009, , .		0