Kamy Sepehrnoori

List of Publications by Year
in descending order

133 papers	5,434 citations	101384 36 h-index	91712 69 g-index
134 all docs	134 docs citations	134 times ranked	2879 citing authors

#	Article	IF	Citations
1	CO2 injection for enhanced oil recovery in Bakken tight oil reservoirs. Fuel, 2015, 159, 354-363.	3.4	390
2	Development of an Efficient Embedded Discrete Fracture Model for 3D Compositional Reservoir Simulation in Fractured Reservoirs. SPE Journal, 2014, 19, 289-303.	1.7	371
3	Reservoir Simulation of CO2 Storage in Aquifers. SPE Journal, 2005, 10, 336-348.	1.7	308
4	A comprehensive review of low salinity/engineered water injections and their applications in sandstone and carbonate rocks. Journal of Petroleum Science and Engineering, 2016, 139, 137-161.	2.1	269
5	New Trapping Mechanism in Carbon Sequestration. Transport in Porous Media, 2010, 82, 3-17.	1.2	243
6	Partitioning Tracer Test for Detection, Estimation, and Remediation Performance Assessment of Subsurface Nonaqueous Phase Liquids. Water Resources Research, 1995, 31, 1201-1211.	1.7	242
7	Simulation of gas desorption and geomechanics effects for unconventional gas reservoirs. Fuel, 2014, 116, 455-464.	3.4	182
8	Modeling Gas Adsorption in Marcellus Shale With Langmuir and BET Isotherms. SPE Journal, 2016, 21, 589-600.	1.7	155
9	A laboratory and simulation study of preformed particle gels for water conformance control. Fuel, 2015, 140, 502-513.	3.4	152
10	Simulation Study of CO2 Huff-n-Puff Process in Bakken Tight Oil Reservoirs. , 2014, , .		147
11	A critical review on use of polymer microgels for conformance control purposes. Journal of Petroleum Science and Engineering, 2014, 122, 741-753.	2.1	139
12	Simulation Study of CO2-EOR in Tight Oil Reservoirs with Complex Fracture Geometries. Scientific Reports, 2016, 6, 33445.	1.6	124
13	Performance evaluation of CO2 Huff-n-Puff and continuous CO2 injection in tight oil reservoirs. Energy, 2017, 134, 181-192.	4.5	119
14	Mechanisms behind low salinity water injection in carbonate reservoirs. Fuel, 2014, 121, 11-19.	3.4	110
15	Simulation of surfactant-enhanced aquifer remediation. Water Resources Research, 1994, 30, 2959-2977.	1.7	104
16	Numerical study of the effect of uneven proppant distribution between multiple fractures on shale gas well performance. Fuel, 2015, 142, 189-198.	3.4	103
17	XFEM-Based CZM for the Simulation of 3D Multiple-Cluster Hydraulic Fracturing in Quasi-Brittle Shale Formations. Rock Mechanics and Rock Engineering, 2016, 49, 4731-4748.	2.6	98
18	Finite-Difference Approximation for Fluid-Flow Simulation and Calculation of Permeability in Porous Media. Transport in Porous Media, 2012, 94, 775-793.	1.2	74

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19	Simulation study of factors affecting CO2 Huff-n-Puff process in tight oil reservoirs. Journal of Petroleum Science and Engineering, 2018, 163, 264-269.	2.1	70
20	A Numerical Model for Simulating Pressure Response of Well Interference and Well Performance in Tight Oil Reservoirs With Complex‐Fracture Geometries Using the Fast Embedded‐Discrete‐Fracture‐Model Method. SPE Reservoir Evaluation and Engineering, 2018, 21, 489-502.	1.1	69
21	Modeling preformed particle gel surfactant combined flooding for enhanced oil recovery after polymer flooding. Fuel, 2017, 194, 42-49.	3.4	62
22	Simulation of shale gas transport and production with complex fractures using embedded discrete fracture model. AICHE Journal, 2018, 64, 2251-2264.	1.8	60
23	An Efficient Reservoir-Simulation Approach To Design and Optimize Unconventional Gas Production. Journal of Canadian Petroleum Technology, 2014, 53, 109-121.	2.3	59
24	Compositional Simulation of CO2 Huff 'n' Puff in Eagle Ford Tight Oil Reservoirs With CO2 Molecular Diffusion, Nanopore Confinement, and Complex Natural Fractures. SPE Reservoir Evaluation and Engineering, 2019, 22, 492-508.	1.1	59
25	Capillary pressure effect on phase behavior of CO2/hydrocarbons in unconventional reservoirs. Fuel, 2017, 197, 575-582.	3.4	55
26	Development of an Embedded Discrete Fracture Model for Field-Scale Reservoir Simulation With Complex Corner-Point Grids. SPE Journal, 2019, 24, 1552-1575.	1.7	55
27	A Semianalytical Approach To Model Two-Phase Flowback of Shale-Gas Wells With Complex-Fracture-Network Geometries. SPE Journal, 2017, 22, 1808-1833.	1.7	54
28	Application of proxy-based MCMC and EDFM to history match a Vaca Muerta shale oil well. Fuel, 2018, 220, 490-502.	3.4	50
29	Using Embedded Discrete Fracture Model (EDFM) in numerical simulation of complex hydraulic fracture networks calibrated by microseismic monitoring data. Journal of Natural Gas Science and Engineering, 2018, 55, 495-507.	2.1	50
30	Geochemical Interpretation of Low-Salinity-Water Injection in Carbonate Oil Reservoirs. SPE Journal, 2015, 20, 1212-1226.	1.7	49
31	Investigation of nanopore confinement on fluid flow in tight reservoirs. Journal of Petroleum Science and Engineering, 2017, 150, 265-271.	2.1	49
32	Coupling IPhreeqc with UTCHEM to model reactive flow and transport. Computers and Geosciences, 2015, 82, 152-169.	2.0	48
33	A chemical EOR benchmark study of different reservoir simulators. Computers and Geosciences, 2016, 94, 96-109.	2.0	48
34	Effect of capillary heterogeneity on buoyant plumes: A new local trapping mechanism. Energy Procedia, 2009, 1, 3299-3306.	1.8	46
35	Numerical Simulation of the Storage of Pure CO2 and CO2-H2S Gas Mixtures in Deep Saline Aquifers. , 2005, , .		44
36	A Comprehensive Model for Real Gas Transport in Shale Formations with Complex Non-planar Fracture Networks. Scientific Reports, 2016, 6, 36673.	1.6	42

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37	Numerical study of complex fracture geometry effect on two-phase performance of shale-gas wells using the fast EDFM method. Journal of Petroleum Science and Engineering, 2018, 164, 603-622.	2.1	41
38	A Comprehensive Model for Investigation of Carbon Dioxide Enhanced Oil Recovery With Nanopore Confinement in the Bakken Tight Oil Reservoir. SPE Reservoir Evaluation and Engineering, 2019, 22, 122-136.	1.1	39
39	Modeling Dynamic Behaviors of Complex Fractures in Conventional Reservoir Simulators. SPE Reservoir Evaluation and Engineering, 2019, 22, 1110-1130.	1.1	36
40	Viscosity Model of Preformed Microgels for Conformance and Mobility Control. Energy & Fuels, 2011, 25, 5033-5037.	2.5	34
41	Impact of Well Interference on Shale Oil Production Performance: A Numerical Model for Analyzing Pressure Response of Fracture Hits with Complex Geometries. , 2017, , .		31
42	New laboratory study and transport model implementation of microgels for conformance and mobility control purposes. Fuel, 2017, 192, 158-168.	3.4	30
43	Coupled Geochemical-Based Modeling of Low Salinity Waterflooding. , 2014, , .		29
44	Effect of Heterogeneous Capillary Pressure on Buoyancy-Driven CO2 Migration. , 2008, , .		28
45	Transport Model Implementation and Simulation of Microgel Processes for Conformance and Mobility Control Purposes. Energy & Fuels, 2011, 25, 5063-5075.	2.5	28
46	A Novel Mechanistic Approach for Modeling Low Salinity Water Injection. , 2013, , .		27
47	Analytical analysis of gas diffusion into non-circular pores of shale organic matter. Journal of Fluid Mechanics, 2017, 819, 656-677.	1.4	26
48	Application of proxy-based MCMC and EDFM to history match a shale gas condensate well. Journal of Petroleum Science and Engineering, 2018, 167, 486-497.	2.1	26
49	Investigation of different production performances in shale gas wells using assisted history matching: Hydraulic fractures and reservoir characterization from production data. Fuel, 2020, 267, 117097.	3.4	26
50	A practical and efficient iterative history matching workflow for shale gas well coupling multiple objective functions, multiple proxy-based MCMC and EDFM. Journal of Petroleum Science and Engineering, 2019, 176, 594-611.	2.1	25
51	Partition coefficients for alcohol tracers between nonaqueous-phase liquids and water from UNIFAC-solubility method. Advances in Water Resources, 1998, 21, 171-181.	1.7	24
52	Compositional Simulation of CO2 Huff-n-Puff in Eagle Ford Tight Oil Reservoirs with CO2 Molecular Diffusion, Nanopore Confinement and Complex Natural Fractures. , 2018, , .		24
53	A Novel Method to Model Low Salinity Water Injection in Carbonate Oil Reservoirs. , 2014, , .		23
54	Investigation of Several Interpolation Functions for Unstructured Meshes in Conjunction with Compositional Reservoir Simulation. Numerical Heat Transfer; Part A: Applications, 2013, 64, 974-993.	1.2	21

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55	Coupling Equation-of-State Compositional and Surfactant Models in a Fully Implicit Parallel Reservoir Simulator Using the Equivalent-Alkane-Carbon-Number Concept. SPE Journal, 2009, 14, 302-310.	1.7	20
56	Well Screen and Optimal Time of Refracturing: A Barnett Shale Well. Journal of Petroleum Engineering, 2013, 2013, 1-10.	0.6	20
57	Effect of upscaling heterogeneous domain on CO_2 trapping mechanisms. Energy Procedia, 2011, 4, 5066-5073.	1.8	19
58	Development of a Four-Phase Chemical-Gas Model in an IMPEC Reservoir Simulator. , 2015, , .		19
59	Capillary Pressure Effect on Hydrocarbon Phase Behavior in Unconventional Reservoirs. , 2016, , .		19
60	Simulation of deformable preformed particle gel propagation in porous media. AICHE Journal, 2017, 63, 4628-4641.	1.8	19
61	Effect of capillary pressure and salinity on CO_2 solubility in brine aquifers. International Journal of Greenhouse Gas Control, 2017, 57, 26-33.	2.3	19
62	Mysteries behind the Low Salinity Water Injection Technique. Journal of Petroleum Engineering, 2014, 2014, 1-11.	0.6	19
63	A Comprehensive Numerical Model for Simulating Fluid Transport in Nanopores. Scientific Reports, 2017, 7, 40507.	1.6	18
64	A Comprehensive Model for Investigation of CO2-EOR with Nanopore Confinement in the Bakken Tight Oil Reservoir. , 2017, , .		18
65	Key problems and solutions in supercritical CO2 fracturing technology. Frontiers in Energy, 2019, 13, 667-672.	1.2	18
66	Coupled Carbon Dioxide Sequestration and Energy Production From Geopressured/Geothermal Aquifers. SPE Journal, 2014, 19, 239-248.	1.7	16
67	Methodology for geomechanically controlled transmissibility through active natural fractures in reservoir simulation. Journal of Petroleum Science and Engineering, 2016, 147, 7-14.	2.1	16
68	Preformed Particle Gel Extrusion through Open Conduits during Conformance Control Treatments. , 2014, , .		15
69	Optimization of the Low Salinity Water Injection Process in Carbonate Reservoirs. , 2014, , .		15
70	A 3D Total Variation Diminishing Scheme for Compositional Reservoir Simulation Using the Element-Based Finite-Volume Method. Numerical Heat Transfer; Part A: Applications, 2015, 67, 839-856.	1.2	15
71	Geochemical Investigation of the Combined Effect of Injecting Low Salinity Water and Carbon Dioxide on Carbonate Reservoirs. Energy Procedia, 2014, 63, 7663-7676.	1.8	14
72	Simulation of planar hydraulic fractures with variable conductivity using the embedded discrete fracture model. Journal of Petroleum Science and Engineering, 2017, 153, 212-222.	2.1	14

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73	Production Forecasting for Shale Gas Reservoirs with Nanopores and Complex Fracture Geometries Using An Innovative Non-Intrusive EDFM Method. , 2018, , .		14
74	The influences of stress level, temperature, and water content on the fitted fractional orders of geomaterials. Mechanics of Time-Dependent Materials, 2020, 24, 221-232.	2.3	14
75	An Innovative Approach to Model Two-Phase Flowback of Shale Gas Wells with Complex Fracture Networks. , 2016, , .		13
76	Comprehensive Study of Gas Cycling in the Bakken Shale. , 2018, , .		13
77	Embedded discrete fracture modeling for compositional reservoir simulation using corner-point grids. Journal of Petroleum Science and Engineering, 2019, 177, 41-52.	2.1	13
78	A Robust Geochemical Simulator to Model Improved Oil Recovery Methods. , 2015, , .		12
79	A novel approach to quantify reservoir pressure along the horizontal section and to optimize multistage treatments and spacing between hydraulic fractures. Journal of Petroleum Science and Engineering, 2017, 149, 579-590.	2.1	12
80	Optimization of Surfactant Flooding in Tight Oil Reservoirs. , 2017, , .		12
81	A Semianalytical Method for Modeling Two-Phase Flow in Coalbed-Methane Reservoirs With Complex Fracture Networks. SPE Reservoir Evaluation and Engineering, 2018, 21, 719-732.	1.1	12
82	A Single-Well Tracer Test To Estimate Wettability. , 1992, , .		11
83	An Automatic History-Matching Workflow for Unconventional Reservoirs Coupling MCMC and Non-Intrusive EDFM Methods. , 2018, , .		11
84	Low Salinity Surfactant Flooding â€" A Multi-Mechanistic Enhanced Oil Recovery Method. , 2015, , .		10
85	New Insights into the Low Salinity Water Injection Effect on Oil Recovery from Carbonate Reservoirs. , 2014, , .		9
86	Mechanistic Modeling of Oil Recovery Due to Low Salinity Water Injection in Oil Reservoirs. , 2015, , .		9
87	Modeling Naturally and Hydraulically Fractured Reservoirs with Artificial Intelligence and Assisted History Matching Methods Using Physics-Based Simulators. , 2019, , .		9
88	The Influence of Development Target Depletion on Stress Evolution and Infill Drilling of Upside Target in the Permian Basin. SPE Reservoir Evaluation and Engineering, 2021, , 1-20.	1.1	9
89	Impact of Complex Fracture Networks on Rate Transient Behavior of Wells in Unconventional Reservoirs Based on Embedded Discrete Fracture Model. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	8
90	Multi-Phase Rate Transient Behaviors of the Multi-Fractured Horizontal Well With Complex Fracture Networks. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	8

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91	Estimation of Local Capillary Trapping Capacity from Geologic Models. Energy Procedia, 2013, 37, 5501-5510.	1.8	7
92	Optimization of Huff-n-Puff Field Gas Enhanced Oil Recovery through a Vertical Well with Multiple Fractures in a Low-Permeability Shaleâ€"Sandâ€"Carbonate Reservoir. Energy & Fuels, 2020, 34, 13822-13836.	2.5	7
93	Single-Well Chemical Tracer Modeling of Low Salinity Water Injection in Carbonates. , 2015, , .		6
94	An improved fracture height containment method: artificial gel-barrier technology and its simulation. Environmental Earth Sciences, 2018, 77, 1.	1.3	6
95	Investigation of Parent-Well Production Induced Stress Interference in Multilayer Unconventional Reservoirs. Rock Mechanics and Rock Engineering, 2022, 55, 2965-2986.	2.6	6
96	A Fast EDFM Method for Production Simulation of Complex Fractures in Naturally Fractured Reservoirs. , 2018, , .		5
97	Streamline modeling of fluid transport in naturally fractured porous medium. Petroleum Exploration and Development, 2019, 46, 130-137.	3.0	5
98	A Novel Optimization Workflow Coupling Statistics-Based Methods to Determine Optimal Well Spacing and Economics in Shale Gas Reservoir with Complex Natural Fractures. Energies, 2020, 13, 3965.	1.6	5
99	A Semianalytical Method for Modeling Two-phase Flow in Coalbed Methane Reservoirs with Complex Fracture Networks. , 2016, , .		4
100	Modeling Fault Reactivation Using Embedded Discrete Fracture Method. , 2018, , .		4
101	An Efficient Computational Scheme for Two-Phase Steam Condensation in the Presence of CO_2 for Wellbore and Long-Distance Flow. ChemEngineering, 2019, 3, 4.	1.0	4
102	Estimation and Analysis of Carbon Dioxide Friction Loss in Wellbore During Liquid/Supercritical Carbon Dioxide Fracturing. SPE Production and Operations, 2019, 34, 244-259.	0.4	4
103	Multi-Phase Rate Transient Analysis Considering Complex Fracture Networks. , 2020, , .		4
104	CO_2 Leakage from Heterogeneous Storage Formations. , 2010, , .		3
105	Embedded Discrete Fracture Model (EDFM) for Complex Fracture Geometry. , 2018, , 155-205.		3
106	The Influence of Development Target Depletion on Stress Evolution and Well Completion of Upside Target in the Permian Basin. , 2020, , .		3
107	Investigation of Vertical Fracture Complexity Induced Stress Interference in Multilayer Shale Gas Reservoirs with Complex Natural Fractures. , 2020, , .		3
108	Evaluation of Polymer Flooding in a Highly Stratified Heterogeneous Reservoir. A Field Case Study. WSEAS Transactions on Environment and Development, 2020, 16, 23-33.	0.3	3

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109	Upscaling Local CO2 Trapping During Buoyancy Driven Flow. , 2009, , .		2
110	An Improved Method for Estimating Volumetric Sweep Efficiency of Low Salinity Water Injection. , 2014, , .		2
111	Hydraulic Fracturing Fluid Effect on Clay Swelling and Water Blockage in Stimulated Naturally Fractured Reservoirs. , 2017, , .		2
112	Estimating the Size and Orientation of Hydraulic Fractures using Microseismic Events. , 2020, , .		2
113	Numerical approaches for modeling complex fractures. Developments in Petroleum Science, 2020, 68, 31-42.	0.2	2
114	Field-scale applications of the embedded discrete fracture model. Developments in Petroleum Science, 2020, 68, 145-190.	0.2	2
115	Water Intrusion Characterization in Naturally Fractured Gas Reservoir Based on Spatial DFN Connectivity Analysis. Energies, 2020, 13, 4235.	1.6	2
116	Carbon Dioxide Storage in Deltaic Saline Aquifers: Invasion Percolation and Compositional Simulation. SPE Reservoir Evaluation and Engineering, 2021, 24, 462-474.	1.1	2
117	Comparison of LSWI/EWI Effect on Sandstone and Carbonate Rocks. , 2017, , 133-141.		1
118	Modeling Gas Adsorption in Marcellus Shale Using Langmuir and BET Isotherms. , 2018, , 129-154.		1
119	CO$_2$ Storage in Deltaic Saline Aquifers: Invasion Percolation and Compositional Simulation. , 2019, , .		1
120	Basic EDFM approach using Cartesian grid. Developments in Petroleum Science, 2020, 68, 43-97.	0.2	1
121	Introduction and literature review. , 2021, , 1-15.		1
122	A Natural Variable Fully Implicit Compositional Reservoir Simulation. , 0, , .		1
123	Enhancement of Simulation CPU Time of Reactive-Transport Flow in Porous Media: Adaptive Tolerance and Mixing Zone-Based Approach. Transport in Porous Media, 0, , .	1.2	1
124	CO 2 Injection for Enhanced Oil Recovery in Tight Oil Reservoirs. , 2018, , 333-376.		0
125	Phase Behavior Modeling by Considering Nanopore Confinement. , 2018, , 377-407.		0
126	Assessment of Complex Fracture Networks Effect on Rate Transient Behavior Using Embedded Discrete Fracture Model. , 2020, , .		0

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127	An extension of the embedded discrete fracture model for modeling dynamic behaviors of complex fractures. Developments in Petroleum Science, 2020, , 99-143.	0.2	0
128	Shale-gas well in Longmaxi Shale with bi-wing hydraulic fractures. , 2021, , 65-87.		0
129	Investigation of different production performances in multiple shale-gas wells. , 2021, , 229-264.		0
130	Sequential Implicit Approach for Compositional Reservoir Simulation in Conjunction with Unstructured Grids. , 0, , .		0
131	A Pressure Traverse Algorithm for Multilateral Oil and Gas Wells. , 0, , .		0
132	An Adaptive approach for compositional reservoir simulation in conjunction with unstructured grids. , 0, , .		0
133	Evaluating Gas-Oil Ratio Behavior of Unconventional Wells in the Uinta Basin. Geofluids, 2022, 2022, 1-12.	0.3	0