Shuyu Sun

List of Publications by Year
in descending order

363 papers	6,599 citations	76326 40 h-index	138484 58 g-index
372 all docs	372 docs citations	372 times ranked	3243 citing authors

#	Article	IF	Citations
1	A linear, decoupled and positivity-preserving numerical scheme for an epidemic model with advection and diffusion. Communications on Pure and Applied Analysis, 2023, 22, 40-57.	0.8	0
2	Fully implicit two-phase VT-flash compositional flow simulation enhanced by multilayer nonlinear elimination. Journal of Computational Physics, 2022, 449, 110790.	3.8	8
3	Parallel multilevel domain decomposition preconditioners for monolithic solution of non-isothermal flow in reservoir simulation. Computers and Fluids, 2022, 232, 105183.	2.5	1
4	Interfacial properties of the alkane+water system in the presence of carbon dioxide and hydrophobic silica. Fuel, 2022, 310, 122332.	6.4	22
5	An energy stable linear numerical method for thermodynamically consistent modeling of two-phase incompressible flow in porous media. Journal of Computational Physics, 2022, 451, 110854.	3.8	11
6	Interfacial properties of the aromatic hydrocarbon+water system in the presence of hydrophilic silica. Journal of Molecular Liquids, 2022, 346, 118272.	4.9	15
7	Intelligent Control on Urban Natural Gas Supply Using a Deep-Learning-Assisted Pipeline Dispatch Technique. Frontiers in Energy Research, 2022, 9, .	2.3	4
8	Matrix acidization in fractured porous media with the continuum fracture model and thermal Darcy-Brinkman-Forchheimer framework. Journal of Petroleum Science and Engineering, 2022, 211, 110210.	4.2	9
9	Flow behaviors of shale oil in kerogen slit by molecular dynamics simulation. Chemical Engineering Journal, 2022, 434, 134682.	12.7	43
10	Molecular dynamics simulation of swelling properties of Ca-montmorillonite at high temperatures. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 043102.	0.5	1
11	A field-based general framework to simulate fluids in parallel and the framework's application to a matrix acidization simulation. PLoS ONE, 2022, 17, e0261134.	2.5	2
12	Modulation of slippage at brine–oil interfaces by surfactants: The effects of surfactant density and tail length. Physics of Fluids, 2022, 34, 022106.	4.0	2
13	Biomagnetic Flow with $CoFe_2O_4$ Magnetic Particles through an Unsteady Stretching/Shrinking Cylinder. Magnetochemistry, 2022, 8, 27.	2.4	12
14	Intelligent Natural Gas and Hydrogen Pipeline Dispatching Using the Coupled Thermodynamics-Informed Neural Network and Compressor Boolean Neural Network. Processes, 2022, 10, 428.	2.8	13
15	Effect of Temperature on Oil–Water Separations Using Membranes in Horizontal Separators. Membranes, 2022, 12, 232.	3.0	6
16	Effects of Membrane Structure on Oil–Water Separation by Smoothed Particle Hydrodynamics. Membranes, 2022, 12, 387.	3.0	5
17	Study of interfacial properties of water+methane+oil three-phase systems by a simple molecular simulation protocol. Journal of Molecular Liquids, 2022, 356, 118951.	4.9	7
18	Bulk and Interfacial Properties of Brine or Alkane in the Presence of Carbon Dioxide, Methane, and Their Mixture. Industrial & Engineering Chemistry Research, 2022, 61, 5016-5029.	3.7	9

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19	Generalized multiscale finite element methods for the reduced model of Darcy flow in fractured porous media. Journal of Computational and Applied Mathematics, 2022, 413, 114305.	2.0	7
20	A fully explicit and unconditionally energy-stable scheme for Peng-Robinson VT flash calculation based on dynamic modeling. Journal of Computational Physics, 2022, 463, 111275.	3.8	7
21	Thermal cooling performance of convective non-Newtonian nanofluid flowing with variant power-index across moving extending surface. Scientific Reports, 2022, 12, .	3.3	12
22	A rock fabric classification method based on the grey level co-occurrence matrix and the Gaussian mixture model. Journal of Natural Gas Science and Engineering, 2022, 104, 104627.	4.4	4
23	Study on the multiphase heat and mass transfer mechanism in the dissociation of methane hydrate in reconstructed real-shape porous sediments. Energy, 2022, 254, 124421.	8.8	36
24	Thermodynamically‐consistent flash calculation in energy industry: From iterative schemes to a unified thermodynamics‐informed neural network. International Journal of Energy Research, 2022, 46, 15332-15346.	4.5	14
25	Scalable semismooth Newton methods with multilevel domain decomposition for subsurface flow and reactive transport in porous media. Journal of Computational Physics, 2022, 467, 111440.	3.8	2
26	Fractional derivative modeling of double-diffusive free convection with von Neumann stability analysis. International Journal of Modelling and Simulation, 2021, 41, 385-396.	3.3	1
27	A new physics-preserving IMPES scheme for incompressible and immiscible two-phase flow in heterogeneous porous media. Journal of Computational and Applied Mathematics, 2021, 381, 113035.	2.0	10
28	Swelling pressure of montmorillonite with multiple water layers at elevated temperatures and water pressures: A molecular dynamics study. Applied Clay Science, 2021, 201, 105924.	5.2	21
29	Numerical investigation of carbonate acidizing with gelled acid using a coupled thermal‐hydrologic‐chemical model. International Journal of Thermal Sciences, 2021, 160, 106700.	4.9	26
30	Influence of fractal surface roughness on multiphase flow behavior: Lattice Boltzmann simulation. International Journal of Multiphase Flow, 2021, 134, 103497.	3.4	17
31	Editorial: Advanced modeling and simulation of flow in subsurface reservoirs with fractures and wells for a sustainable industry. Oil and Gas Science and Technology, 2021, 76, E1.	1.4	0
32	DESIGN AND FABRICATION OF ROCK-BASED MICROFLUIDICS BY 3D PRINTING: THE STRUCTURE CHARACTERIZATION AND PORE-SCALE FLOW EXPERIMENT VALIDATION. Journal of Porous Media, 2021, 24, 77-92.	1.9	1
33	Water uptake in parallel fractures. Capillarity, 2021, 4, 1-12.	2.2	0
34	Thermodynamically consistent Darcy‐Brinkman‐Forchheimer framework in matrix acidization. Oil and Gas Science and Technology, 2021, 76, 8.	1.4	6
35	A Unified, One Fluid Model for the Drag of Fluid and Solid Dispersals by Permeate Flux towards a Membrane Surface. Membranes, 2021, 11, 154.	3.0	1
36	Numerical Analysis of a Continuous Vulcanization Line to Enhance CH4 Reduction in XLPE-Insulated Cables. Materials, 2021, 14, 1018.	2.9	2

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37	The Effect of the Oleophobicity Deterioration of a Membrane Surface on Its Rejection Capacity: A Computational Fluid Dynamics Study. Membranes, 2021, 11, 253.	3.0	5
38	Dissociation and transport modeling of methane hydrate in core-scale sandy sediments: A comparative study. Energy, 2021, 221, 119890.	8.8	20
39	Multiscale pore structure characterization based on SEM images. Fuel, 2021, 289, 119915.	6.4	13
40	Image-based rock typing using grain geometry features. Computers and Geosciences, 2021, 149, 104703.	4.2	13
41	Sorption and Diffusion of Methane, Carbon Dioxide, and Their Mixture in Amorphous Polyethylene at High Pressures and Temperatures. Industrial & Engineering Chemistry Research, 2021, 60, 7729-7738.	3.7	20
42	Improved IMPES Scheme for the Simulation of Incompressible Three-Phase Flows in Subsurface Porous Media. Energies, 2021, 14, 2757.	3.1	3
43	Image-based rock typing using local homogeneity filter and Chan-Vese model. Computers and Geosciences, 2021, 150, 104712.	4.2	5
44	An exploratory multi-scale framework to reservoir digital twin. Advances in Geo-Energy Research, 2021, 5, 239-251.	6.0	5
45	Review on space energy. Applied Energy, 2021, 292, 116896.	10.1	35
46	Modeling of Water Generation from Air Using Anhydrous Salts. Energies, 2021, 14, 3822.	3.1	7
47	Investigation of the dynamics of immiscible displacement of a ganglion in capillaries. Capillarity, 2021, 4, 31-44.	2.2	12
48	Numerical modeling on hydrate formation and evaluating the influencing factors of its heterogeneity in core-scale sandy sediment. Journal of Natural Gas Science and Engineering, 2021, 90, 103945.	4.4	18
49	Spectral relaxation computation of electroconductive nanofluid convection flow from a moving surface with radiative flux and magnetic induction. Journal of Computational Design and Engineering, 2021, 8, 1158-1171.	3.1	2
50	Bulk and Interfacial Properties of the Decane + Brine System in the Presence of Carbon Dioxide, Methane, and Their Mixture. Industrial & Engineering Chemistry Research, 2021, 60, 11525-11534.	3.7	11
51	Overview of the Adsorption and Transport Properties of Water, Ions, Carbon Dioxide, and Methane in Swelling Clays. ACS Earth and Space Chemistry, 2021, 5, 2599-2611.	2.7	23
52	Lunar features detection for energy discovery via deep learning. Applied Energy, 2021, 296, 117085.	10.1	10
53	Sedapp v2021: a nonlinear diffusion-based forward stratigraphic model for shallow marine environments. Geoscientific Model Development, 2021, 14, 4925-4937.	3.6	0
54	Characterization and microfabrication of natural porous rocks: From micro-CT imaging and digital rock modelling to micro-3D-printed rock analogs. Journal of Petroleum Science and Engineering, 2021, 205, 108827.	4.2	33

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55	Bound-preserving inexact Newton algorithms on parallel computers for wormhole propagation in porous media. Computers and Geotechnics, 2021, 138, 104340.	4.7	2
56	Image-based grain partitioning using skeleton extension erosion method. Journal of Petroleum Science and Engineering, 2021, 205, 108797.	4.2	3
57	A self-adaptive deep learning algorithm for intelligent natural gas pipeline control. Energy Reports, 2021, 7, 3488-3496.	5.1	26
58	Dynamics of ion depletion in thin brine films. Fuel, 2021, 306, 121758.	6.4	1
59	Pore scale modeling on dissociation and transportation of methane hydrate in porous sediments. Energy, 2021, 237, 121630.	8.8	23
60	Bulk and Interfacial Properties of Alkanes in the Presence of Carbon Dioxide, Methane, and Their Mixture. Industrial & Engineering Chemistry Research, 2021, 60, 729-738.	3.7	17
61	Interfacial behavior of the decane + brine + surfactant system in the presence of carbon dioxide, methane, and their mixture. Soft Matter, 2021, 17, 10545-10554.	2.7	8
62	Molecular Dynamics Modeling of Kaolinite Particle Associations. Journal of Physical Chemistry C, 2021, 125, 24126-24136.	3.1	7
63	Thermodynamics-Informed Neural Network (TINN) for Phase Equilibrium Calculations Considering Capillary Pressure. Energies, 2021, 14, 7724.	3.1	27
64	A decoupled scheme to solve the mass and momentum conservation equations of the improved Darcyâ€"Brinkmanâ€"Forchheimer framework in matrix acidization. AIP Advances, 2021, 11, .	1.3	1
65	Low salinity effect on the recovery of oil trapped by nanopores: A molecular dynamics study. Fuel, 2020, 261, 116443.	6.4	26
66	A Novel Energy Factorization Approach for the Diffuse-Interface Model with Peng--Robinson Equation of State. SIAM Journal of Scientific Computing, 2020, 42, B30-B56.	2.8	34
67	A locally and globally phase-wise mass conservative numerical algorithm for the two-phase immiscible flow problems in porous media. Computers and Geotechnics, 2020, 119, 103370.	4.7	7
68	A phase-field moving contact line model with soluble surfactants. Journal of Computational Physics, 2020, 405, 109170.	3.8	74
69	Generalized multiscale approximation of mixed finite elements with velocity elimination for subsurface flow. Journal of Computational Physics, 2020, 404, 109133.	3.8	16
70	Bulk and Interfacial Properties of the Decane + Water System in the Presence of Methane, Carbon Dioxide, and Their Mixture. Journal of Physical Chemistry B, 2020, 124, 9556-9569.	2.6	30
71	Accelerating flash calculations in unconventional reservoirs considering capillary pressure using an optimized deep learning algorithm. Journal of Petroleum Science and Engineering, 2020, 195, 107886.	4.2	44
72	Adsorption and Diffusion of Carbon Dioxide, Methane, and Their Mixture in Carbon Nanotubes in the Presence of Water. Journal of Physical Chemistry C, 2020, 124, 16478-16487.	3.1	40

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73	Evaluation of elastoplastic properties of brittle sandstone at microscale using micro‑indentation test and simulation. Energy Science and Engineering, 2020, 8, 3490-3501.	4.0	2
74	Theoretical stability analysis of mixed finite element model of shale-gas flow with geomechanical effect. Oil and Gas Science and Technology, 2020, 75, 33.	1.4	2
75	A Digital Twin for Unconventional Reservoirs: A Multiscale Modeling and Algorithm to Investigate Complex Mechanisms. Geofluids, 2020, 2020, 1-12.	0.7	9
76	Numerical Study of CH4 Generation and Transport in XLPE-Insulated Cables in Continuous Vulcanization. Materials, 2020, 13, 2978.	2.9	3
77	Dual solution of boundary-layer flow driven by variable plate and streaming-free velocity. Advances in Mechanical Engineering, 2020, 12, 168781402093084.	1.6	1
78	Thermodynamically consistent modeling of two-phase incompressible flows in heterogeneous and fractured media. Oil and Gas Science and Technology, 2020, 75, 32.	1.4	8
79	Stability theory of nano-fluid over an exponentially stretching cylindrical surface containing microorganisms. Scientific Reports, 2020, 10, 17004.	3.3	8
80	Effect of salinity on oil production: review on low salinity waterflooding mechanisms and exploratory study on pipeline scaling. Oil and Gas Science and Technology, 2020, 75, 50.	1.4	22
81	A Comprehensive Experimental Study on Mechanical Behavior, Microstructure and Transport Properties of 3D-printed Rock Analogs. Rock Mechanics and Rock Engineering, 2020, 53, 5745-5765.	5.4	47
82	A self-adaptive deep learning algorithm for accelerating multi-component flash calculation. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113207.	6.6	73
83	Thermodynamic modeling of CO_2 solubility in saline water using NVT flash with the cubic-Plus-association equation of state. Fluid Phase Equilibria, 2020, 520, 112657.	2.5	16
84	A POD-DEIM reduced model for compressible gas reservoir flow based on the Peng-Robinson equation of state. Journal of Natural Gas Science and Engineering, 2020, 79, 103367.	4.4	7
85	Review of classical reservoir simulation. , 2020, , 23-86.		3
86	Recent progress in pore scale reservoir simulation. , 2020, , 87-142.		0
87	Recent progress in Darcy's scale reservoir simulation. , 2020, , 143-204.		0
88	Recent progress in multiscale and mesoscopic reservoir simulation. , 2020, , 205-258.		2
89	Recent progress in accelerating flash calculation using deep learning algorithms. , 2020, , 289-322.		0
90	Nonlinearly preconditioned constraint-preserving algorithms for subsurface three-phase flow with capillarity. Computer Methods in Applied Mechanics and Engineering, 2020, 367, 113140.	6.6	7

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91	Sorption and Diffusion of Methane and Carbon Dioxide in Amorphous Poly(alkyl acrylates): A Molecular Simulation Study. Journal of Physical Chemistry B, 2020, 124, 1301-1310.	2.6	29
92	Unconditionally stable, efficient and robust numerical simulation of isothermal compositional grading by gravity. Journal of Computational Science, 2020, 43, 101109.	2.9	2
93	Fully discrete energy stable scheme for a phase-field moving contact line model with variable densities and viscosities. Applied Mathematical Modelling, 2020, 83, 614-639.	4.2	26
94	Visualized Experiments on Residual Oil Classification and Its Influencing Factors in Waterflooding Using Micro-Computed Tomography. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	2.3	19
95	A 6M digital twin for modeling and simulation in subsurface reservoirs. Advances in Geo-Energy Research, 2020, 4, 349-351.	6.0	15
96	The effect of surface pattern property on the advancing motion of three-dimensional droplets. Discrete and Continuous Dynamical Systems - Series B, 2020, .	0.9	0
97	Numerical Investigation of Solute Transport in Fractured Porous Media Using the Discrete Fracture Model. Lecture Notes in Computer Science, 2020, , 102-115.	1.3	0
98	A Machine-Learning based generalization for an iterative Hybrid Embedded Fracture scheme. Journal of Petroleum Science and Engineering, 2020, 194, 107235.	4.2	4
99	Advances in Gaussian random field generation: a review. Computational Geosciences, 2019, 23, 1011-1047.	2.4	55
100	Parallel reservoir simulators for fully implicit complementarity formulation of multicomponent compressible flows. Computer Physics Communications, 2019, 244, 2-12.	7.5	7
101	Structure, Thermodynamics, and Dynamics of Thin Brine Films in Oilâ€"Brineâ€"Rock Systems. Langmuir, 2019, 35, 10341-10353.	3.5	23
102	A fully implicit constraint-preserving simulator for the black oil model of petroleum reservoirs. Journal of Computational Physics, 2019, 396, 347-363.	3.8	27
103	Two-dimensional gyrotactic microorganisms flow of hydromagnetic power law nanofluid past an elongated sheet. Advances in Mechanical Engineering, 2019, 11, 168781401988125.	1.6	26
104	Heat and Mass Transfer in a Viscous Nanofluid Containing a Gyrotactic Micro-Organism Over a Stretching Cylinder. Symmetry, 2019, 11, 1131.	2.2	13
105	Controlling Factors of Degassing in Crosslinked Polyethylene Insulated Cables. Polymers, 2019, 11, 1439.	4.5	11
106	Competitive adsorption phenomenon in shale gas displacement processes. RSC Advances, 2019, 9, 25326-25335.	3.6	35
107	Darcy-scale phase equilibrium modeling with gravity and capillarity. Journal of Computational Physics, 2019, 399, 108908.	3.8	23
108	Thermodynamically consistent modelling of two-phase flows with moving contact line and soluble surfactants. Journal of Fluid Mechanics, 2019, 879, 327-359.	3.4	108

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109	Emerging Advances in Petrophysics: Porous Media Characterization and Modeling of Multiphase Flow. Energies, 2019, 12, 282.	3.1	7
110	A fully mass-conservative iterative IMPEC method for multicomponent compressible flow in porous media. Journal of Computational and Applied Mathematics, 2019, 362, 1-21.	2.0	22
111	Modeling and analysis of the acidizing process in carbonate rocks using a two-phase thermal-hydrologic-chemical coupled model. Chemical Engineering Science, 2019, 207, 215-234.	3.8	36
112	Accelerating flash calculation through deep learning methods. Journal of Computational Physics, 2019, 394, 153-165.	3.8	42
113	Acceleration of the *NVT* Flash Calculation for Multicomponent Mixtures Using Deep Neural Network Models. Industrial & Engineering Chemistry Research, 2019, 58, 12312-12322.	3.7	30
114	Adsorption and Diffusion of Methane and Carbon Dioxide in Amorphous Regions of Cross-Linked Polyethylene: A Molecular Simulation Study. Industrial & Engineering Chemistry Research, 2019, 58, 8426-8436.	3.7	40
115	Fully mass-conservative IMPES schemes for incompressible two-phase flow in porous media. Computer Methods in Applied Mechanics and Engineering, 2019, 350, 641-663.	6.6	33
116	A coupled Lattice Boltzmann approach to simulate gas flow and transport in shale reservoirs with dynamic sorption. Fuel, 2019, 246, 196-203.	6.4	65
117	A tutorial review of reactive transport modeling and risk assessment for geologic CO_2 sequestration. Computers and Geosciences, 2019, 127, 1-11.	4.2	23
118	Numerical Approximation of a Phase-Field Surfactant Model with Fluid Flow. Journal of Scientific Computing, 2019, 80, 223-247.	2.3	29
119	Effect of Ion Valency on the Properties of the Carbon Dioxide–Methane–Brine System. Journal of Physical Chemistry B, 2019, 123, 2719-2727.	2.6	26
120	Numerical investigation of the POD reduced-order model for fast predictions of two-phase flows in porous media. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 4167-4204.	2.8	12
121	Bulk and interfacial properties of decane in the presence of carbon dioxide, methane, and their mixture. Scientific Reports, 2019, 9, 19784.	3.3	31
122	Layer Charge Effects on Adsorption and Diffusion of Water and Ions in Interlayers and on External Surfaces of Montmorillonite. ACS Earth and Space Chemistry, 2019, 3, 2635-2645.	2.7	37
123	A semi-analytic porosity evolution scheme for simulating wormhole propagation with the Darcy–Brinkman–Forchheimer model. Journal of Computational and Applied Mathematics, 2019, 348, 401-420.	2.0	17
124	Molecular Simulation Study of Montmorillonite in Contact with Water. Industrial & Engineering Chemistry Research, 2019, 58, 1396-1403.	3.7	51
125	Efficient energy-stable schemes for the hydrodynamics coupled phase-field model. Applied Mathematical Modelling, 2019, 70, 82-108.	4.2	83
126	Homogenization of two-phase fluid flow in porous media via volume averaging. Journal of Computational and Applied Mathematics, 2019, 353, 265-282.	2.0	13

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127	Editorial to the Special Issue: Modeling and Characterization of Low Permeability (Tight) and Nanoporous Reservoirs. Transport in Porous Media, 2019, 126, 523-525.	2.6	1
128	Numerical Modeling and Simulation of Shale-Gas Transport with Geomechanical Effect. Transport in Porous Media, 2019, 126, 779-806.	2.6	5
129	The transport of nanoparticles in subsurface with fractured, anisotropic porous media: Numerical simulations and parallelization. Journal of Computational and Applied Mathematics, 2019, 350, 1-18.	2.0	12
130	Flow Mechanism and Simulation Approaches for Shale Gas Reservoirs: A Review. Transport in Porous Media, 2019, 126, 655-681.	2.6	41
131	HOMOGENIZE COUPLED STOKES–CAHN–HILLIARD SYSTEM TO DARCY'S LAW FOR TWO-PHASE FLUID FLOW IN POROUS MEDIUM BY VOLUME AVERAGING. Journal of Porous Media, 2019, 22, 1-19.	1.9	4
132	Comparison of multi-field coupling numerical simulation in hot dry rock thermal exploitation of enhanced geothermal systems. Advances in Geo-Energy Research, 2019, 3, 396-409.	6.0	15
133	Phase equilibrium calculations in shale gas reservoirs. Capillarity, 2019, 2, 8-16.	2.2	19
134	Mixed Finite Element Solution for the Natural-Gas Dual-Mechanism Model. Lecture Notes in Computer Science, 2019, , 437-444.	1.3	0
135	Energy Stable Simulation of Two-Phase Equilibria with Capillarity. Lecture Notes in Computer Science, 2019, , 538-550.	1.3	0
136	Accelerated Phase Equilibrium Predictions for Subsurface Reservoirs Using Deep Learning Methods. Lecture Notes in Computer Science, 2019, , 623-632.	1.3	1
137	Flow split characterization of two immiscible phases with different wettability scenarios: A numerical investigation using a coupled Cahn–Hilliard and Navier–Stokes system. International Journal of Multiphase Flow, 2018, 100, 172-185.	3.4	17
138	Physics-preserving averaging scheme based on Grünwald-Letnikov formula for gas flow in fractured media. Journal of Petroleum Science and Engineering, 2018, 163, 616-639.	4.2	9
139	A globally mass-conservative method for dual-continuum gas reservoir simulation. Journal of Natural Gas Science and Engineering, 2018, 53, 301-316.	4.4	22
140	A stable algorithm for calculating phase equilibria with capillarity at specified moles, volume and temperature using a dynamic model. Fluid Phase Equilibria, 2018, 456, 7-24.	2.5	40
141	Discrete-fracture-model of multi-scale time-splitting two-phase flow including nanoparticles transport in fractured porous media. Journal of Computational and Applied Mathematics, 2018, 333, 327-349.	2.0	14
142	Thermodynamically consistent modeling and simulation of multi-component two-phase flow with partial miscibility. Computer Methods in Applied Mechanics and Engineering, 2018, 331, 623-649.	6.6	44
143	Energy Stability Analysis of Some Fully Discrete Numerical Schemes for Incompressible Navier–Stokes Equations on Staggered Grids. Journal of Scientific Computing, 2018, 75, 427-456.	2.3	12
144	A scalable fully implicit framework for reservoir simulation on parallel computers. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 334-350.	6.6	24

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145	Preparation of Highly Porous Polymer Membranes with Hierarchical Porous Structures via Spinodal Decomposition of Mixed Solvents with UCST Phase Behavior. ACS Applied Materials & Interfaces, 2018, 10, 44041-44049.	8.0	38
146	Linearly Decoupled Energy-Stable Numerical Methods for Multicomponent Two-Phase Compressible Flow. SIAM Journal on Numerical Analysis, 2018, 56, 3219-3248.	2.3	56
147	Thermodynamically Stable Two-Phase Equilibrium Calculation of Hydrocarbon Mixtures with Capillary Pressure. Industrial & Engineering Chemistry Research, 2018, 57, 17276-17288.	3.7	13
148	Sedimentology and mechanism of a lacustrine syn-rift fan delta system: A case study of the Paleogene Gaobei Slope Belt, Bohai Bay Basin, China. Marine and Petroleum Geology, 2018, 98, 477-490.	3.3	10
149	Entropy stable modeling of non-isothermal multi-component diffuse-interface two-phase flows with realistic equations of state. Computer Methods in Applied Mechanics and Engineering, 2018, 341, 221-248.	6.6	17
150	A Compact and Efficient Lattice Boltzmann Scheme to Simulate Complex Thermal Fluid Flows. Lecture Notes in Computer Science, 2018, , 149-162.	1.3	4
151	Mixed Finite Element Simulation with Stability Analysis for Gas Transport in Low-Permeability Reservoirs. Energies, 2018, 11, 208.	3.1	10
152	Decoupled, energy stable schemes for a phase-field surfactant model. Computer Physics Communications, 2018, 233, 67-77.	7.5	42
153	LES Study on High Reynolds Turbulent Drag-Reducing Flow of Viscoelastic Fluids Based on Multiple Relaxation Times Constitutive Model and Mixed Subgrid-Scale Model. Lecture Notes in Computer Science, 2018, , 174-188.	1.3	1
154	Study on an N-Parallel FENE-P Constitutive Model Based on Multiple Relaxation Times for Viscoelastic Fluid. Lecture Notes in Computer Science, 2018, , 610-623.	1.3	1
155	Thermodynamically consistent simulation of nonisothermal diffuse-interface two-phase flow with Peng–Robinson equation of state. Journal of Computational Physics, 2018, 371, 581-605.	3.8	17
156	Adaptive Time-Splitting Scheme for Nanoparticles Transport with Two-Phase Flow in Heterogeneous Porous Media. Lecture Notes in Computer Science, 2018, , 366-378.	1.3	1
157	A Componentwise Convex Splitting Scheme for Diffuse Interface Models with Van der Waals and Peng--Robinson Equations of State. SIAM Journal of Scientific Computing, 2017, 39, B1-B28.	2.8	36
158	Molecular Simulation Study of Montmorillonite in Contact with Variably Wet Supercritical Carbon Dioxide. Journal of Physical Chemistry C, 2017, 121, 6199-6208.	3.1	43
159	Numerical modeling of isothermal compositional grading by convex splitting methods. Journal of Natural Gas Science and Engineering, 2017, 43, 207-221.	4.4	10
160	Effects of radiation and thermal conductivity on MHD boundary layer flow with heat transfer along a vertical stretching sheet in a porous medium. Journal of Engineering Thermophysics, 2017, 26, 96-106.	1.4	5
161	Effects of nanoparticles on melting process with phase-change using the lattice Boltzmann method. Results in Physics, 2017, 7, 1676-1682.	4.1	10
162	Multiscale Adapted Time-Splitting Technique for Nonisothermal Two-Phase Flow and Nanoparticles Transport in Heterogenous Porous Media. , 2017, , .		2

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163	A residual-based a posteriori error estimator for single-phase Darcy flow in fractured porous media. Numerische Mathematik, 2017, 136, 805-839.	1.9	12
164	Understanding the True Stimulated Reservoir Volume in Shale Reservoirs. , 2017, , .		1
165	Nonlinearly preconditioned semismooth Newton methods for variational inequality solution of two-phase flow in porous media. Journal of Computational Physics, 2017, 332, 1-20.	3.8	36
166	An efficient two-scale hybrid embedded fracture model for shale gas simulation. Journal of Petroleum Science and Engineering, 2017, 152, 683-714.	4.2	14
167	Molecular Dynamics Simulation Study of Carbon Dioxide, Methane, and Their Mixture in the Presence of Brine. Journal of Physical Chemistry B, 2017, 121, 9688-9698.	2.6	60
168	A Multiscale Time-Splitting Discrete Fracture Model of Nanoparticles Transport in Fractured Porous Media. , 2017, , .		1
169	Convergence analysis of the nonlinear iterative method for two-phase flow in porous media associated with nanoparticle injection. International Journal of Numerical Methods for Heat and Fluid Flow, 2017, 27, 2289-2317.	2.8	13
170	Dual-mixed finite elements for the three-field Stokes model as a finite volume method on staggered grids. Procedia Computer Science, 2017, 108, 2265-2274.	2.0	0
171	Reduced Fracture Finite Element Model Analysis of an Efficient Two-Scale Hybrid Embedded Fracture Model. Procedia Computer Science, 2017, 108, 1873-1882.	2.0	1
172	A Fast Algorithm to Simulate Droplet Motions in Oil/Water Two Phase Flow. Procedia Computer Science, 2017, 108, 1953-1962.	2.0	3
173	Comparative study of shale-gas production using single- and dual-continuum approaches. Journal of Petroleum Science and Engineering, 2017, 157, 894-905.	4.2	11
174	Numerical Simulation of Magnetic Nanoparticles Injection into Two–phase Flow in a Porous Medium. Procedia Computer Science, 2017, 108, 2260-2264.	2.0	10
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