Mo-Ran Wang

List of Publications by Year
in descending order

210 papers	9,774 citations	41323 49 h-index	40954 93 g-index
222 all docs	222 docs citations	222 times ranked	8281 citing authors

#	Article	IF	Citations
1	Electrospun nanomaterials for ultrasensitive sensors. Materials Today, 2010, 13, 16-27.	8.3	562
2	Predictions of effective physical properties of complex multiphase materials. Materials Science and Engineering Reports, 2008, 63, 1-30.	14.8	558
3	Electro-spinning/netting: A strategy for the fabrication of three-dimensional polymer nano-fiber/nets. Progress in Materials Science, 2013, 58, 1173-1243.	16.0	440
4	Engineering biomimetic superhydrophobic surfaces of electrospun nanomaterials. Nano Today, 2011, 6, 510-530.	6.2	417
5	Mesoscopic predictions of the effective thermal conductivity for microscale random porous media. Physical Review E, 2007, 75, 036702.	0.8	394
6	Gas Sensors Based on Electrospun Nanofibers. Sensors, 2009, 9, 1609-1624.	2.1	371
7	A lattice Boltzmann algorithm for fluidâ€“solid conjugate heat transfer. International Journal of Thermal Sciences, 2007, 46, 228-234.	2.6	305
8	Modeling and prediction of the effective thermal conductivity of random open-cell porous foams. International Journal of Heat and Mass Transfer, 2008, 51, 1325-1331.	2.5	225
9	Fabrication of biomimetic superhydrophobic surfaces inspired by lotus leaf and silver ragwort leaf. Nanoscale, 2011, 3, 1258.	2.8	195
10	Phonon hydrodynamics and its applications in nanoscale heat transport. Physics Reports, 2015, 595, 1-44.	10.3	188
11	Optimization principles for convective heat transfer. Energy, 2009, 34, 1199-1206.	4.5	181
12	Thermal conductivity enhancement of carbon fiber composites. Applied Thermal Engineering, 2009, 29, 418-421.	3.0	174
13	Simulations for gas flows in microgeometries using the direct simulation Monte Carlo method. International Journal of Heat and Fluid Flow, 2004, 25, 975-985.	1.1	173
14	Lattice Boltzmann modeling of the effective thermal conductivity for fibrous materials. International Journal of Thermal Sciences, 2007, 46, 848-855.	2.6	153
15	A highly sensitive humidity sensor based on a nanofibrous membrane coated quartz crystal microbalance. Nanotechnology, 2010, 21, 055502.	1.3	153
16	Lattice Poissonâ€“Boltzmann simulations of electro-osmotic flows in microchannels. Journal of Colloid and Interface Science, 2006, 296, 729-736.	5.0	151
17	Amphiphobic Nanofibrous Silica Mats with Flexible and High-Heat-Resistant Properties. Journal of Physical Chemistry C, 2010, 114, 916-921.	1.5	126
18	Electroosmosis in homogeneously charged micro- and nanoscale random porous media. Journal of Colloid and Interface Science, 2007, 314, 264-273.	5.0	119

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19	Modeling electrokinetic flows in microchannels using coupled lattice Boltzmann methods. Journal of Computational Physics, 2010, 229, 728-744.	1.9	117
20	Electrochemical charge of silica surfaces at high ionic strength in narrow channels. Journal of Colloid and Interface Science, 2010, 343, 381-386.	5.0	116
21	Continuous inertial microparticle and blood cell separation in straight channels with local microstructures. Lab on A Chip, 2016, 16, 532-542.	3.1	115
22	Non-Fourier heat conductions in nanomaterials. Journal of Applied Physics, 2011, 110, .	1.1	113
23	Biomimicry via Electrospinning. Critical Reviews in Solid State and Materials Sciences, 2012, 37, 94-114.	6.8	100
24	Highly sensitive humidity sensors based on electro-spinning/netting a polyamide 6 nano-fiber/net modified by polyethyleneimine. Journal of Materials Chemistry, 2011, 21, 16231.	6.7	89
25	Review of low salinity waterflooding mechanisms: Wettability alteration and its impact on oil recovery. Fuel, 2020, 267, 117112.	3.4	86
26	Polyamide 6 composite nano-fiber/net functionalized by polyethyleneimine on quartz crystal microbalance for highly sensitive formaldehyde sensors. Journal of Materials Chemistry, 2011, 21, 12784.	6.7	84
27	A new approach to analysis and optimization of evaporative cooling system I: Theory. Energy, 2010, 35, 2448-2454.	4.5	83
28	Roughness and cavitations effects on electro-osmotic flows in rough microchannels using the lattice Poissonâ€“Boltzmann methods. Journal of Computational Physics, 2007, 226, 836-851.	1.9	82
29	Momentum-exchange method in lattice Boltzmann simulations of particle-fluid interactions. Physical Review E, 2013, 88, 013303.	0.8	82
30	Mesoscopic simulations of phase distribution effects on the effective thermal conductivity of microgranular porous media. Journal of Colloid and Interface Science, 2007, 311, 562-570.	5.0	77
31	Three-dimensional effect on the effective thermal conductivity of porous media. Journal Physics D: Applied Physics, 2007, 40, 260-265.	1.3	75
32	Engineering thermal and mechanical properties of flexible fiber-reinforced aerogel composites. Journal of Sol-Gel Science and Technology, 2012, 63, 445-456.	1.1	74
33	Lattice Boltzmann modeling of phonon transport. Journal of Computational Physics, 2016, 315, 1-15.	1.9	69
34	Phonon hydrodynamics for nanoscale heat transport at ordinary temperatures. Physical Review B, 2018, 97, .	1.1	69
35	Electrokinetic Transport in Microchannels with Random Roughness. Analytical Chemistry, 2009, 81, 2953-2961.	3.2	68
36	Electrokinetic pumping effects of charged porous media in microchannels using the lattice Poissonâ€“Boltzmann method. Journal of Colloid and Interface Science, 2006, 304, 246-253.	5.0	67

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37	Lattice Boltzmann simulations of conjugate heat transfer in high-frequency oscillating flows. International Journal of Heat and Fluid Flow, 2008, 29, 1203-1210.	1.1	66
38	Understanding of temperature and size dependences of effective thermal conductivity of nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 4312-4315.	0.9	66
39	Numerical analyses of effective dielectric constant of multiphase microporous media. Journal of Applied Physics, 2007, 101, 114102.	1.1	60
40	Analyses of gas flows in micro- and nanochannels. International Journal of Heat and Mass Transfer, 2008, 51, 3630-3641.	2.5	60
41	Gas mixing in microchannels using the direct simulation Monte Carlo method. International Journal of Heat and Mass Transfer, 2006, 49, 1696-1702.	2.5	58
42	Pore-scale geometry effects on gas permeability in shale. Journal of Natural Gas Science and Engineering, 2016, 34, 948-957.	2.1	58
43	Heat transport in two-dimensional materials by directly solving the phonon Boltzmann equation under Callaway's dual relaxation model. Physical Review B, 2017, 96, .	1.1	55
44	Synthetic Multifunctional Graphene Composites with Reshaping and Selfâ€Healing Features via a Facile Biomineralizationâ€Inspired Process. Advanced Materials, 2018, 30, e1803004.	11.1	55
45	Hydro-mechanical coupled mechanisms of hydraulic fracture propagation in rocks with cemented natural fractures. Journal of Petroleum Science and Engineering, 2018, 163, 421-434.	2.1	54
46	An improved pore-network model including viscous coupling effects using direct simulation by the lattice Boltzmann method. Advances in Water Resources, 2017, 100, 26-34.	1.7	53
47	Electrokinetic mechanism of wettability alternation at oil-water-rock interface. Surface Science Reports, 2017, 72, 369-391.	3.8	53
48	Modeling of electrokinetic transport in silica nanofluidic channels. Analytica Chimica Acta, 2010, 664, 158-164.	2.6	52
49	Shear-thinning or shear-thickening fluid for better EOR? â€" A direct pore-scale study. Journal of Petroleum Science and Engineering, 2018, 161, 683-691.	2.1	51
50	Prediction and optimization of radiative thermal properties of nano TiO2 assembled fibrous insulations. International Journal of Heat and Mass Transfer, 2018, 117, 729-739.	2.5	50
51	Electroosmotic flow: From microfluidics to nanofluidics. Electrophoresis, 2021, 42, 834-868.	1.3	50
52	Nonideal gas flow and heat transfer in micro- and nanochannels using the direct simulation Monte Carlo method. Physical Review E, 2003, 68, 046704.	0.8	48
53	Uncovering Molecular Mechanisms of Electrowetting and Saturation with Simulations. Physical Review Letters, 2012, 108, 216101.	2.9	47
54	Pore-scale modeling of chloride ion diffusion in cement microstructures. Cement and Concrete Composites, 2018, 85, 92-104.	4.6	47

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55	Lattice Boltzmann modeling for multiphase viscoplastic fluid flow. Journal of Non-Newtonian Fluid Mechanics, 2016, 234, 118-128.	1.0	45
56	GENERAL HEAT CONDUCTION EQUATIONS BASED ON THE THERMOMASS THEORY. Frontiers in Heat and Mass Transfer, 2010, 1, .	0.1	45
57	Multiscale modeling of ion diffusion in cement paste: electrical double layer effects. Cement and Concrete Composites, 2019, 96, 55-65.	4.6	44
58	Electrochemomechanical energy conversion efficiency in silica nanochannels. Microfluidics and Nanofluidics, 2010, 9, 181-190.	1.0	42
59	Mixing enhancement of low-Reynolds electro-osmotic flows in microchannels with temperature-patterned walls. Journal of Colloid and Interface Science, 2014, 431, 50-63.	5.0	42
60	LATTICE BOLTZMANN SIMULATIONS OF MIXING ENHANCEMENT BY THE ELECTRO-OSMOTIC FLOW IN MICROCHANNELS. Modern Physics Letters B, 2005, 19, 1515-1518.	1.0	41
61	Elastic property of multiphase composites with random microstructures. Journal of Computational Physics, 2009, 228, 5978-5988.	1.9	40
62	Permeability of high-Kn real gas flow in shale and production prediction by pore-scale modeling. Journal of Natural Gas Science and Engineering, 2016, 28, 328-337.	2.1	40
63	Monte Carlo simulations of gas flow and heat transfer in vacuum packaged MEMS devices. Applied Thermal Engineering, 2007, 27, 323-329.	3.0	39
64	Microstructure Effects on Effective Gas Diffusion Coefficient of Nanoporous Materials. Transport in Porous Media, 2019, 126, 431-453.	1.2	39
65	Numerical simulations on performance of MEMS-based nozzles at moderate or low temperatures. Microfluidics and Nanofluidics, 2004, 1, 62-70.	1.0	38
66	Poreâ€Scale Modeling of Spontaneous Imbibition Behavior in a Complex Shale Porous Structure by Pseudopotential Lattice Boltzmann Method. Journal of Geophysical Research: Solid Earth, 2018, 123, 9586-9600.	1.4	38
67	Interfacial phonon transport with frequency-dependent transmissivity by Monte Carlo simulation. International Journal of Heat and Mass Transfer, 2018, 123, 616-628.	2.5	37
68	A comparison of optimization theories for energy conservation in heat exchanger groups. Science Bulletin, 2011, 56, 449-454.	1.7	36
69	A new thermo-mechanical coupled DEM model with non-spherical grains for thermally induced damage of rocks. Journal of the Mechanics and Physics of Solids, 2018, 116, 54-69.	2.3	36
70	Electroviscous effects in nanofluidic channels. Journal of Chemical Physics, 2010, 132, 024701.	1.2	35
71	Prediction and optimization of radiative thermal properties of ultrafine fibrous insulations. Applied Thermal Engineering, 2016, 104, 394-402.	3.0	35
72	Lattice Boltzmann model for three-phase viscoelastic fluid flow. Physical Review E, 2018, 97, 023312.	0.8	35

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73	An Enskog based Monte Carlo method for high Knudsen number non-ideal gas flows. Computers and Fluids, 2007, 36, 1291-1297.	1.3	33
74	Enhanced oil recovery mechanism and recovery performance of microâ€gel particle suspensions by microfluidic experiments. Energy Science and Engineering, 2020, 8, 986-998.	1.9	33
75	Lattice evolution solution for the nonlinear Poissonâ€“Boltzmann equation in confined domains. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 575-583.	1.7	32
76	Poreâ€scale modeling of hydromechanical coupled mechanics in hydrofracturing process. Journal of Geophysical Research: Solid Earth, 2017, 122, 3410-3429.	1.4	32
77	Molecular simulations of electroosmotic flows in rough nanochannels. Journal of Computational Physics, 2010, 229, 7834-7847.	1.9	31
78	Numerical prediction of the decline of the shale gas production rate with considering the geomechanical effects based on the two-part Hookeâ€™s model. Fuel, 2016, 185, 362-369.	3.4	30
79	Competitive effects of interfacial interactions on ion-tuned wettability by atomic simulations. Journal of Colloid and Interface Science, 2019, 540, 495-500.	5.0	30
80	Large area high-performance bismuth vanadate photoanode for efficient solar water splitting. Journal of Materials Chemistry A, 2020, 8, 3845-3850.	5.2	30
81	Self-adaptive preferential flow control using displacing fluid with dispersed polymers in heterogeneous porous media. Journal of Fluid Mechanics, 2021, 906, .	1.4	30
82	Self-assembly of phthalocyanine and polyacrylic acid composite multilayers on cellulose nanofibers. Carbohydrate Polymers, 2010, 80, 839-844.	5.1	29
83	Effective gas diffusion coefficient in fibrous materials by mesoscopic modeling. International Journal of Heat and Mass Transfer, 2017, 107, 736-746.	2.5	29
84	Electro-osmosis in inhomogeneously charged microporous media by pore-scale modeling. Journal of Colloid and Interface Science, 2017, 486, 219-231.	5.0	29
85	Characterization of spontaneous imbibition dynamics in irregular channels by mesoscopic modeling. Computers and Fluids, 2018, 168, 21-31.	1.3	29
86	Micro- and nanoscale non-ideal gas Poiseuille flows in a consistent Boltzmann algorithm model. Journal of Micromechanics and Microengineering, 2004, 14, 1057-1063.	1.5	28
87	Characterization of nanopore morphology of shale and its effects on gas permeability. Journal of Natural Gas Science and Engineering, 2017, 47, 83-90.	2.1	28
88	Coupling of high Knudsen number and non-ideal gas effects in microporous media. Journal of Fluid Mechanics, 2018, 840, 56-73.	1.4	28
89	Electro-osmosis of non-Newtonian fluids in porous media using lattice Poissonâ€“Boltzmann method. Journal of Colloid and Interface Science, 2014, 436, 186-193.	5.0	27
90	PREDICTION OF THERMAL CONDUCTIVITY OF FIBER/AEROGEL COMPOSITES FOR OPTIMAL THERMAL INSULATION. Journal of Porous Media, 2015, 18, 971-984.	1.0	27

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91	Understanding length dependences of effective thermal conductivity of nanowires. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3514-3517.	0.9	25
92	Modeling of electrokinetic reactive transport in micropore using a coupled lattice Boltzmann method. Journal of Geophysical Research: Solid Earth, 2015, 120, 2877-2890.	1.4	25
93	Direct simulation of second sound in graphene by solving the phonon Boltzmann equation via a multiscale scheme. Physical Review B, 2019, 100, .	1.1	25
94	Evaporation Flux Distribution of Drops on a Hydrophilic or Hydrophobic Flat Surface by Molecular Simulations. Langmuir, 2016, 32, 8255-8264.	1.6	24
95	Structure Effects on Electro-Osmosis in Microporous Media. Journal of Heat Transfer, 2012, 134, .	1.2	23
96	Nonequilibrium thermodynamics of phonon hydrodynamic model for nanoscale heat transport. Physical Review B, 2018, 98, .	1.1	23
97	GRAIN SIZE EFFECTS ON EFFECTIVE THERMAL CONDUCTIVITY OF POROUS MATERIALS WITH INTERNAL THERMAL CONTACT RESISTANCE. Journal of Porous Media, 2013, 16, 1043-1048.	1.0	22
98	Lattice Boltzmann Modeling of Thermal Conduction in Composites with Thermal Contact Resistance. Communications in Computational Physics, 2015, 17, 1037-1055.	0.7	22
99	Similarity of ideal gas flow at different scales. Science in China Series D: Earth Sciences, 2003, 46, 661.	0.9	21
100	Optimization Principle for Variable Viscosity Fluid Flow and Its Application to Heavy Oil Flow Drag Reduction. Energy & Fuels, 2009, 23, 4470-4478.	2.5	21
101	Droplet evaporation on a horizontal substrate under gravity field by mesoscopic modeling. Journal of Colloid and Interface Science, 2016, 463, 317-323.	5.0	21
102	Similarity of electroosmotic flows in nanochannels. Molecular Simulation, 2007, 33, 239-244.	0.9	20
103	Lattice Boltzmann Simulation of Particle Motion in Binary Immiscible Fluids. Communications in Computational Physics, 2015, 18, 757-786.	0.7	20
104	Critical Resolution and Sample Size of Digital Rock Analysis for Unconventional Reservoirs. Energies, 2018, 11, 1798.	1.6	19
105	Liquid flow retardation in nanospaces due to electroviscosity: Electrical double layer overlap, hydrodynamic slippage, and ambient atmospheric CO2 dissolution. Physics of Fluids, 2012, 24, 072001.	1.6	18
106	Applicability of Donnan equilibrium theory at nanochannelâ€“reservoir interfaces. Journal of Colloid and Interface Science, 2015, 452, 78-88.	5.0	18
107	Transport mechanism of deformable micro-gel particle through micropores with mechanical properties characterized by AFM. Scientific Reports, 2019, 9, 1453.	1.6	18
108	Nonequilibrium effects on the electron-phonon coupling constant in metals. Physical Review B, 2021, 103, .	1.1	18

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109	Modeling of electroâ€osmosis of dilute electrolyte solutions in silica microporous media. Journal of Geophysical Research, 2010, 115, .	3.3	17
110	Interfacial Phonon Transport Through Si/Ge Multilayer Film Using Monte Carlo Scheme With Spectral Transmissivity. Frontiers in Energy Research, 2018, 6, .	1.2	17
111	Nonwetting droplet oscillation and displacement by viscoelastic fluids. Physical Review Fluids, 2020, 5, .	1.0	17
112	Non-monotonic wettability effects on displacement in heterogeneous porous media. Journal of Fluid Mechanics, 2022, 942, .	1.4	17
113	Transport properties of functionally graded materials. Journal of Applied Physics, 2007, 102, .	1.1	16
114	Molecular dynamics for ion-tuned wettability in oil/brine/rock systems. AIP Advances, 2017, 7, .	0.6	16
115	Cation Diffusion in Compacted Clay: A Pore-Scale View. Environmental Science & Technology, 2019, 53, 1976-1984.	4.6	16
116	Temperature effects on electrical double layer at solidâ€aqueous solution interface. Electrophoresis, 2020, 41, 1067-1072.	1.3	16
117	Numerical study of active control of mixing in electro-osmotic flows by temperature difference using lattice Boltzmann methods. Journal of Colloid and Interface Science, 2013, 407, 546-555.	5.0	15
118	Multiscale Fluid Mechanics and Modeling. Procedia IUTAM, 2014, 10, 100-114.	1.2	15
119	Manipulating electrokinetic conductance of nanofluidic channel by varying inlet pH of solution. Microfluidics and Nanofluidics, 2017, 21, 1.	1.0	15
120	Flexibility of inactive electrokinetic layer at charged solid-liquid interface in response to bulk ion concentration. Journal of Colloid and Interface Science, 2019, 534, 195-204.	5.0	15
121	Field Synergy Principle for Energy Conservation Analysis and Application. Advances in Mechanical Engineering, 2010, 2, 129313.	0.8	15
122	Fundamentals and Modeling of Electrokinetic Transport in Nanochannels. Israel Journal of Chemistry, 2014, 54, 1533-1555.	1.0	14
123	Transient solute transport with sorption in Poiseuille flow. Journal of Fluid Mechanics, 2017, 828, 733-752.	1.4	14
124	Pore-scale study of thermal effects on ion diffusion in clay with inhomogeneous surface charge. Journal of Colloid and Interface Science, 2018, 514, 443-451.	5.0	14
125	Gas permeability calculation of tight rocks based on laboratory measurements with non-ideal gas slippage and poroelastic effects considered. International Journal of Rock Mechanics and Minings Sciences, 2018, 112, 16-24.	2.6	14
126	Critical REV Size of Multiphase Flow in Porous Media for Upscaling by Pore-Scale Modeling. Transport in Porous Media, 2022, 144, 111-132.	1.2	14

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127	Reverse electrodialysis through nanochannels with inhomogeneously charged surfaces and overlapped electric double layers. Journal of Colloid and Interface Science, 2018, 529, 214-223.	5.0	13
128	Lattice Boltzmann scheme for hydrodynamic equation of phonon transport. International Journal of Thermal Sciences, 2022, 171, 107178.	2.6	13
129	Electric potential distribution in nanoscale electroosmosis: from molecules to continuum. Molecular Simulation, 2008, 34, 509-514.	0.9	12
130	Bonding Strength Effects in Hydro-Mechanical Coupling Transport in Granular Porous Media by Pore-Scale Modeling. Computation, 2016, 4, 15.	1.0	12
131	Understanding of flux-limited behaviors of heat transport in nonlinear regime. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 452-457.	0.9	12
132	Macroscopic heat transport equations and heat waves in nonequilibrium states. Physica D: Nonlinear Phenomena, 2017, 342, 24-31.	1.3	12
133	Poreâ€scale Study of Ion Transport Mechanisms in Inhomogeneously Charged Nanoporous Rocks: Impacts of Interface Properties on Macroscopic Transport. Journal of Geophysical Research: Solid Earth, 2019, 124, 5387-5407.	1.4	12
134	Phonon vortex dynamics in graphene ribbon by solving Boltzmann transport equation with ab initio scattering rates. International Journal of Heat and Mass Transfer, 2021, 169, 120981.	2.5	12
135	Mesoscopic Modeling of Multiphysicochemical Transport Phenomena in Porous Media. Advances in Mechanical Engineering, 2010, 2, 142879.	0.8	11
136	On mechanisms of choked gas flows in microchannels. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2351-2356.	0.9	10
137	Thermodynamic analysis of gas flow and heat transfer in microchannels. International Journal of Heat and Mass Transfer, 2016, 103, 773-782.	2.5	10
138	Size effect on phonon hydrodynamics in graphite microstructures and nanostructures. Physical Review B, 2021, 104, .	1.1	10
139	Can we infer the percolation status of 3D fractured media from 2D outcrops?. Engineering Geology, 2022, 302, 106648.	2.9	10
140	Efficiency improvement of discrete-ordinates method for interfacial phonon transport by Gauss-Legendre integral for frequency domain. Journal of Computational Physics, 2019, 399, 108920.	1.9	9
141	Does Lowâ€Viscosity Fracturing Fluid Always Create Complex Fractures?. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020332.	1.4	9
142	Dynamic analysis of deformation and start-up process of residual-oil droplet on wall under shear flow. Journal of Petroleum Science and Engineering, 2021, 199, 108335.	2.1	9
143	Investigation of Spontaneous Imbibition Behavior in a 3D Pore Space Under Reservoir Condition by Lattice Boltzmann Method. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021987.	1.4	9
144	Monte Carlo simulations of dense gas flow and heat transfer in micro- and nano-channels. Science in China Series D: Earth Sciences, 2005, 48, 317.	0.9	8

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145	Multi-dimensional effect on optimal network structure for fluid distribution. Chemical Engineering and Processing: Process Intensification, 2010, 49, 1038-1043.	1.8	8
146	An improved elastic-tubes model for the correlation of permeability and stress with correction for the Klinkenberg effect. Journal of Natural Gas Science and Engineering, 2017, 48, 24-35.	2.1	8
147	Experimental Investigation of Gas Dynamic Effects Using Nanoporous Synthetic Materials as Tight Rock Analogues. Transport in Porous Media, 2021, 137, 519-553.	1.2	8
148	Temperature-regulated surface charge manipulates ionic current rectification in tapered nanofluidic channel. International Journal of Mechanical Sciences, 2021, 210, 106754.	3.6	8
149	Understanding of Thermal Conductance of Thin Gas Layers. Advances in Mechanical Engineering, 2013, 5, 692842.	0.8	8
150	Preferential flow control in heterogeneous porous media by concentration-manipulated rheology of microgel particle suspension. Journal of Petroleum Science and Engineering, 2022, 212, 110275.	2.1	8
151	Failure analysis of the molecular block model for the direct simulation Monte Carlo method. Physics of Fluids, 2004, 16, 2122-2125.	1.6	7
152	Comparisons of different implementations of turbulence modelling in lattice Boltzmann method. Journal of Turbulence, 2015, 16, 67-80.	0.5	7
153	Anion Diffusion in Compacted Clays by Poreâ€Scale Simulation and Experiments. Water Resources Research, 2020, 56, e2019WR027037.	1.7	7
154	Critical Size of Continuum Theory Applicability for Single-Phase Liquid Flow in Nanochannel. Journal of Nanoscience and Nanotechnology, 2017, 17, 6149-6158.	0.9	7
155	Impacts of fracture properties on the formation and development of stimulated reservoir volume: A global sensitivity analysis. Journal of Petroleum Science and Engineering, 2022, 217, 110852.	2.1	7
156	Manipulation of effective thermal conductivity of multilayer thin film by varying thickness ratio of layers using Monte Carlo simulation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 58-62.	0.9	6
157	Wettability effects on mobilization of ganglia during displacement. International Journal of Mechanical Sciences, 2022, 215, 106933.	3.6	6
158	Thermodiffusion of ions in nanoconfined aqueous electrolytes. Journal of Colloid and Interface Science, 2022, 619, 331-338.	5.0	6
159	Deviational Monte Carlo scheme for thermal and electrical transport in metal nanostructures. Physical Review B, 2019, 99, .	1.1	5
160	Compaction effects on permeability of spherical packing. Engineering Computations, 2020, 37, 3079-3096.	0.7	5
161	An improved immersed moving boundary for hydrodynamic force calculation in lattice Boltzmann method. International Journal for Numerical Methods in Engineering, 2020, 121, 4493-4508.	1.5	5
162	In-plane interfacial phonon transport through multi-layer thin films by theoretical analyses and Monte Carlo simulations. International Journal of Heat and Mass Transfer, 2021, 176, 121438.	2.5	5

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163	Nonnegative magnetoresistance in hydrodynamic regime of electron fluid transport in two-dimensional materials. Physical Review B, 2021, 104, .	1.1	5
164	A modified pulseâ€decay approach to simultaneously measure permeability and porosity of tight rocks. Energy Science and Engineering, 2021, 9, 2354-2363.	1.9	5
165	A Steady-State Energy-Based Monte Carlo Method for Phonon Transport With Arbitrary Temperature Difference. Journal of Heat Transfer, 2022, 144, .	1.2	5
166	An improved straight-line method for permeability and porosity determination for tight reservoirs using pulse-decay measurements. Journal of Natural Gas Science and Engineering, 2022, 105, 104708.	2.1	5
167	Relaxation time simulation method with internal energy exchange for perfect gas flow at near-continuum conditions. Communications in Nonlinear Science and Numerical Simulation, 2007, 12, 1277-1282.	1.7	4
168	Lattice Boltzmann simulations for the vortex tori pattern in the three-dimensional cubic-quintic complex Ginzburgâ€“Landau equation. Journal of Computational Physics, 2016, 306, 311-319.	1.9	4
169	Phonon hydrodynamics: progress, applications and perspectives. Scientia Sinica: Physica, Mechanica Et Astronomica, 2017, 47, 070010.	0.2	4
170	Effect of interfacial roughness on thermal boundary conductance: An elastic wave model using the Kirchhoff approximation. International Journal of Mechanical Sciences, 2022, 218, 106993.	3.6	4
171	Trapping patterns during capillary displacements in disordered media. Journal of Fluid Mechanics, 2022, 933, .	1.4	4
172	Drop movements and replacement on surface driven by shear force via hybrid atomisticâ€“continuum simulations. Molecular Simulation, 2016, 42, 855-862.	0.9	3
173	Thermodynamic framework for a generalized heat transport equation. Communications in Applied and Industrial Mathematics, 2016, 7, 167-176.	0.6	3
174	Reactive Transport of Protons in Electro-Osmotic Displacements with Electrolyte Concentration Difference in a Microcapillary. Analytical Chemistry, 2018, 90, 11802-11811.	3.2	3
175	Dispersion of charged solute in charged microâ€and nanochannel with reversible sorption. Electrophoresis, 2019, 40, 838-844.	1.3	3
176	Abnormal thermal boundary resistance of thin films with heat source. International Journal of Heat and Mass Transfer, 2020, 147, 118941.	2.5	3
177	Reexamination of electron-phonon coupling constant in continuum model by comparison with Boltzmann transport theory. International Journal of Heat and Mass Transfer, 2021, 174, 121309.	2.5	3
178	Numerical Simulation of Fluid Flow and Heat Transfer Processes. Advances in Mechanical Engineering, 2013, 5, 497950.	0.8	3
179	Effective Resistance of Gas Flow in Microchannels. Advances in Mechanical Engineering, 2013, 5, 950681.	0.8	3
180	A Generalized Local Grid Refinement Approach for Modeling of Multi-Physicochemical Transports by Lattice Boltzmann Method. Advances in Applied Mathematics and Mechanics, 2019, 11, 312-337.	0.7	3

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181	LATTICE BOLTZMANN MODEL FOR UPSCALING OF FLOW IN HETEROGENEOUS POROUS MEDIA BASED ON DARCY'S LAW. Journal of Porous Media, 2019, 22, 1131-1139.	1.0	3
182	The Pumping Effect of Traveling Phase Transition in Microtubes. International Journal of Nonlinear Sciences and Numerical Simulation, 2002, 3, .	0.4	2
183	The physical chemistry of materials. Materials Today, 2010, 13, 67.	8.3	2
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