Xiao-Dong Wang

List of Publications by Year
in descending order

183	7,471	36203	76769
papers	citations	51 h-index	74 g-index

184	184	184	3798
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heat transfer enhancement in microchannel heat sink by wavy channel with changing wavelength/amplitude. International Journal of Thermal Sciences, 2017, 118, 423-434.	2.6	232
2	Heat transfer enhancement in microchannel heat sinks using nanofluids. International Journal of Heat and Mass Transfer, 2012, 55, 2559-2570.	2.5	155
3	An improved design of double-layered microchannel heat sink with truncated top channels. Applied Thermal Engineering, 2015, 79, 54-62.	3.0	150
4	A Critical Review of Dynamic Wetting by Complex Fluids: From Newtonian Fluids to Non-Newtonian Fluids and Nanofluids. Advances in Colloid and Interface Science, 2016, 236, 43-62.	7.0	146
5	A three-dimensional numerical modeling of thermoelectric device with consideration of coupling of temperature field and electric potential field. Energy, 2012, 47, 488-497.	4.5	145
6	Optimal geometric structure for nanofluid-cooled microchannel heat sink under various constraint conditions. Energy Conversion and Management, 2013, 65, 528-538.	4.4	132
7	Numerical study on channel size effect for proton exchange membrane fuel cell with serpentine flow field. Energy Conversion and Management, 2010, 51, 959-968.	4.4	125
8	Fluid flow and heat transfer in microchannel heat sink based on porous fin design concept. International Communications in Heat and Mass Transfer, 2015, 65, 52-57.	2.9	125
9	Performance investigation and design optimization of a thermoelectric generator applied in automobile exhaust waste heat recovery. Energy Conversion and Management, 2016, 120, 71-80.	4.4	124
10	Local transport phenomena and cell performance of PEM fuel cells with various serpentine flow field designs. Journal of Power Sources, 2008, 175, 397-407.	4.0	119
11	Transient modeling and dynamic characteristics of thermoelectric cooler. Applied Energy, 2013, 108, 340-348.	5.1	119
12	Optimization of geometry and flow rate distribution for double-layer microchannel heat sink. International Journal of Thermal Sciences, 2014, 78, 158-168.	2.6	119
13	Optimization of thermal resistance and bottom wall temperature uniformity for double-layered microchannel heat sink. Energy Conversion and Management, 2015, 93, 141-150.	4.4	115
14	Multi-parameter optimization of flow and heat transfer for a novel double-layered microchannel heat sink. International Journal of Heat and Mass Transfer, 2015, 84, 359-369.	2.5	111
15	Novel serpentine-baffle flow field design for proton exchange membrane fuel cells. Journal of Power Sources, 2007, 173, 210-221.	4.0	110
16	Multi-parameters optimization for microchannel heat sink using inverse problem method. International Journal of Heat and Mass Transfer, 2011, 54, 2811-2819.	2.5	110
17	A new scheme for reducing pressure drop and thermal resistance simultaneously in microchannel heat sinks with wavy porous fins. International Journal of Heat and Mass Transfer, 2017, 111, 1071-1078.	2.5	108
18	An inverse geometry design problem for optimization of single serpentine flow field of PEM fuel cell. International Journal of Hydrogen Energy, 2010, 35, 4247-4257.	3.8	99

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19	Internal flow in evaporating droplet on heated solid surface. International Journal of Heat and Mass Transfer, 2011, 54, 4437-4447.	2.5	98
20	Multi-objective and multi-parameter optimization of a thermoelectric generator module. Energy, 2014, 71, 367-376.	4.5	93
21	Geometry optimization of thermoelectric coolers using simplified conjugate-gradient method. Energy, 2013, 59, 689-697.	4.5	91
22	Inverse geometric optimization for geometry of nanofluid-cooled microchannel heat sink. Applied Thermal Engineering, 2013, 55, 87-94.	3.0	89
23	Characteristics analysis and parametric study of a thermoelectric generator by considering variable material properties and heat losses. International Journal of Heat and Mass Transfer, 2015, 80, 227-235.	2.5	87
24	Energy- and exergy-based working fluid selection and performance analysis of a high-temperature PEMFC-based micro combined cooling heating and power system. Applied Energy, 2017, 204, 446-458.	5.1	86
25	Flow and heat transfer characteristics in double-layered microchannel heat sinks with porous fins. International Communications in Heat and Mass Transfer, 2018, 93, 41-47.	2.9	84
26	Effects of solidâ€“gas coupling and pore and particle microstructures on the effective gaseous thermal conductivity in aerogels. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	83
27	Molecular Dynamics Simulations on Coalescence and Non-coalescence of Conducting Droplets. Langmuir, 2015, 31, 7457-7462.	1.6	79
28	Dynamic response characteristics of thermoelectric generator predicted by a three-dimensional heat-electricity coupled model. Journal of Power Sources, 2014, 245, 262-269.	4.0	78
29	Molecular dynamics simulation on evaporation of water and aqueous droplets in the presence of electric field. International Journal of Heat and Mass Transfer, 2014, 73, 533-541.	2.5	77
30	A new design of solar thermoelectric generator with combination of segmented materials and asymmetrical legs. Energy Conversion and Management, 2018, 175, 11-20.	4.4	75
31	Selected porous-ribs design for performance improvement in double-layered microchannel heat sinks. International Journal of Thermal Sciences, 2019, 137, 616-626.	2.6	75
32	Determination of the optimal active area for proton exchange membrane fuel cells with parallel, interdigitated or serpentine designs. International Journal of Hydrogen Energy, 2009, 34, 3823-3832.	3.8	71
33	Surface tension, viscosity, and rheology of water-based nanofluids: a microscopic interpretation on the molecular level. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	69
34	Impacts of potential models on calculating the thermal conductivity of graphene using non-equilibrium molecular dynamics simulations. International Journal of Heat and Mass Transfer, 2017, 107, 450-460.	2.5	67
35	Power output and efficiency of a thermoelectric generator under temperature control. Energy Conversion and Management, 2016, 127, 404-415.	4.4	65
36	Effect of longitudinal electrode arrangement on EHD-induced heat transfer enhancement in a rectangular channel. International Journal of Heat and Mass Transfer, 2016, 93, 1072-1081.	2.5	65

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37	Performance study on a stepped flow field design for bipolar plate in PEMFC. Energy Reports, 2021, 7, 336-347.	2.5	65
38	Numerical Investigation of Tapered Flow Field Configurations for Enhanced Polymer Electrolyte Membrane Fuel Cell Performance. Applied Energy, 2022, 306, 118021.	5.1	65
39	Coalescence-Induced Jumping of Two Unequal-Sized Nanodroplets. Langmuir, 2018, 34, 2734-2740.	1.6	64
40	Explosive boiling of nano-liquid argon films on high temperature platinum walls: Effects of surface wettability and film thickness. International Journal of Thermal Sciences, 2018, 132, 610-617.	2.6	63
41	Reduction in the contact time of impacting droplets by decorating a rectangular ridge on superhydrophobic surfaces. International Journal of Heat and Mass Transfer, 2019, 132, 1105-1115.	2.5	62
42	Multi-sub-inlets at cathode flow-field plate for current density homogenization and enhancement of PEM fuel cells in low relative humidity. Energy Conversion and Management, 2022, 252, 115069.	4.4	62
43	Parameter analysis and optimal design for two-stage thermoelectric cooler. Applied Energy, 2015, 154, 1-12.	5.1	61
44	Thermodynamic approach and comparison of two-step and single step DME (dimethyl ether) syntheses with carbon dioxide utilization. Energy, 2016, 109, 326-340.	4.5	58
45	Effects of wettability on explosive boiling of nanoscale liquid films: Whether the classical nucleation theory fails or not?. International Journal of Heat and Mass Transfer, 2019, 132, 1277-1283.	2.5	57
46	Geometry optimization of a novel M-like flow field in a proton exchange membrane fuel cell. Energy Conversion and Management, 2021, 228, 113651.	4.4	57
47	Effect of nanofluids on thin film evaporation in microchannels. Journal of Nanoparticle Research, 2011, 13, 5033-5047.	0.8	56
48	Enhancement of maximum temperature drop across thermoelectric cooler through two-stage design and transient supercooling effect. Applied Energy, 2016, 175, 285-292.	5.1	56
49	Performance comparison of wavy microchannel heat sinks with wavy bottom rib and side rib designs. International Journal of Thermal Sciences, 2019, 146, 106068.	2.6	56
50	Universal Model for the Maximum Spreading Factor of Impacting Nanodroplets: From Hydrophilic to Hydrophobic Surfaces. Langmuir, 2020, 36, 9306-9316.	1.6	56
51	Contact Time of a Bouncing Nanodroplet. Journal of Physical Chemistry Letters, 2020, 11, 2818-2823.	2.1	56
52	Performance analysis of two-stage TECs (thermoelectric coolers) using a three-dimensional heat-electricity coupled model. Energy, 2014, 65, 419-429.	4.5	53
53	Bio-inspired design of an auxiliary fishbone-shaped cathode flow field pattern for polymer electrolyte membrane fuel cells. Energy Conversion and Management, 2021, 227, 113588.	4.4	53
54	Adsorption removal of natural organic matters in waters using biochar. Bioresource Technology, 2018, 260, 413-416.	4.8	52

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55	A computational fluid dynamics (CFD) approach of thermoelectric generator (TEG) for power generation. Applied Thermal Engineering, 2020, 173, 115203.	3.0	51
56	Investigation of heat transfer enhancement by electrohydrodynamics in a double-wall-heated channel. International Journal of Heat and Mass Transfer, 2017, 113, 373-383.	2.5	50
57	Three-dimensional numerical study of a cathode gas diffusion layer with a through/in plane synergetic gradient porosity distribution for PEM fuel cells. International Journal of Heat and Mass Transfer, 2022, 188, 122661.	2.5	50
58	Enhanced Peltier cooling of two-stage thermoelectric cooler via pulse currents. International Journal of Heat and Mass Transfer, 2017, 114, 656-663.	2.5	49
59	Flow field optimization for proton exchange membrane fuel cells with varying channel heights and widths. Electrochimica Acta, 2009, 54, 5522-5530.	2.6	48
60	Wetting Transition from the Cassieâ€“Baxter State to the Wenzel State on Regularly Nanostructured Surfaces Induced by an Electric Field. Langmuir, 2019, 35, 662-670.	1.6	47
61	Active disturbance rejection control strategy applied to cathode humidity control in PEMFC system. Energy Conversion and Management, 2020, 224, 113389.	4.4	47
62	Heat transfer enhancement of symmetric and parallel wavy microchannel heat sinks with secondary branch design. International Journal of Thermal Sciences, 2022, 171, 107229.	2.6	47
63	Channel aspect ratio effect for serpentine proton exchange membrane fuel cell: Role of sub-rib convection. Journal of Power Sources, 2009, 193, 684-690.	4.0	46
64	Enhancement of Coalescence-Induced Nanodroplet Jumping on Superhydrophobic Surfaces. Langmuir, 2018, 34, 11195-11203.	1.6	46
65	Experimental performance investigation on the arrangement of metal foam as flow distributors in proton exchange membrane fuel cell. Energy Conversion and Management, 2021, 231, 113846.	4.4	46
66	The Maximum Spreading Factor for Polymer Nanodroplets Impacting a Hydrophobic Solid Surface. Journal of Physical Chemistry C, 2019, 123, 12841-12850.	1.5	44
67	Electro-coalescence of two charged droplets under constant and pulsed DC electric fields. International Journal of Heat and Mass Transfer, 2016, 98, 10-16.	2.5	42
68	Improvement of transient supercooling of thermoelectric coolers through variable semiconductor cross-section. Applied Energy, 2016, 164, 501-508.	5.1	42
69	Performance of a thermoelectric generator intensified by temperature oscillation. Energy, 2017, 133, 257-269.	4.5	41
70	Electrocoalescence behavior of two identical droplets with various droplet radii. Applied Thermal Engineering, 2017, 111, 1464-1469.	3.0	39
71	Proteomic researches for lignocellulose-degrading enzymes: A mini-review. Bioresource Technology, 2018, 265, 532-541.	4.8	39
72	Optimal pulse current shape for transient supercooling of thermoelectric cooler. Energy, 2015, 83, 788-796.	4.5	38

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73	Enhancement of boiling heat transfer of thin water film on an electrified solid surface. International Journal of Heat and Mass Transfer, 2017, 109, 410-416.	2.5	38
74	A comprehensive analysis of the performance of thermoelectric generators with constant and variable properties. Applied Energy, 2019, 241, 11-24.	5.1	38
75	A new design of double-layered microchannel heat sinks with wavy microchannels and porous-ribs. Journal of Thermal Analysis and Calorimetry, 2020, 141, 547-558.	2.0	37
76	Effects of slot-jet length on the cooling performance of hybrid microchannel/slot-jet module. International Journal of Heat and Mass Transfer, 2015, 89, 838-845.	2.5	36
77	Heat transfer enhancement of microchannel heat sink using transcritical carbon dioxide as the coolant. Energy Conversion and Management, 2016, 110, 154-164.	4.4	36
78	Optimal design of a novel M-like channel in bipolar plates of proton exchange membrane fuel cell based on minimum entropy generation. Energy Conversion and Management, 2020, 205, 112386.	4.4	36
79	Thermodynamic study of a hybrid PEMFC-solar energy multi-generation system combined with SOEC and dual Rankine cycle. Energy Conversion and Management, 2020, 226, 113512.	4.4	36
80	Temperature and humidity management of PEM fuel cell power system using multi-input and multi-output fuzzy method. Applied Thermal Engineering, 2022, 203, 117865.	3.0	35
81	A new configuration design of thermoelectric cooler driven by thermoelectric generator. Applied Thermal Engineering, 2019, 160, 114087.	3.0	34
82	Dropwise condensation: From fundamentals of wetting, nucleation, and droplet mobility to performance improvement by advanced functional surfaces. Advances in Colloid and Interface Science, 2021, 295, 102503.	7.0	34
83	Droplet dynamic characteristics on PEM fuel cell cathode gas diffusion layer with gradient pore size distribution. Renewable Energy, 2021, 178, 864-874.	4.3	34
84	Energy-based model for capillary spreading of power-law liquids on a horizontal plane. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 403, 155-163.	2.3	33
85	Asymmetric heat transfer characteristics of a double droplet impact on a moving liquid film. International Journal of Heat and Mass Transfer, 2018, 126, 649-659.	2.5	33
86	Power generation of thermoelectric generator with plate fins for recovering low-temperature waste heat. Applied Energy, 2022, 306, 118012.	5.1	33
87	Electro-coalescence of two charged droplets under pulsed direct current electric fields with various waveforms: A molecular dynamics study. Journal of Molecular Liquids, 2020, 312, 113429.	2.3	32
88	Spreading and retraction kinetics for impact of nanodroplets on hydrophobic surfaces. Physics of Fluids, 2020, 32, .	1.6	31
89	Influence of Wave Parallel Flow Field Design on the Performance of PEMFC. Journal of Energy Engineering - ASCE, 2021, 147, .	1.0	31
90	Water management and structure optimization study of nickel metal foam as flow distributors in proton exchange membrane fuel cell. Applied Energy, 2022, 309, 118448.	5.1	30

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91	Microscopic mechanism for the effect of adding salt on electrospinning by molecular dynamics simulations. Applied Physics Letters, 2014, 105, .	1.5	29
92	Spreading dynamics of power-law fluid droplets. Journal of Physics Condensed Matter, 2009, 21, 464117.	0.7	28
93	Study on initial stage of capillary rise dynamics. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 433, 95-103.	2.3	28
94	Proton exchange membrane fuel cell modeling with diffusion layer-based and sands-based capillary pressure correlations: Comparative study. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 1532-1541.	2.7	28
95	Contact time on inclined superhydrophobic surfaces decorated with parallel macro-ridges. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 599, 124924.	2.3	28
96	Scaling laws of the maximum spreading factor for impact of nanodroplets on solid surfaces. Journal of Fluid Mechanics, 2022, 937, .	1.4	28
97	Dynamic Wetting of Non-Newtonian Fluids: Multicomponent Molecular-Kinetic Approach. Langmuir, 2010, 26, 14594-14599.	1.6	27
98	Molecular Dynamics Simulations on Evaporation of Droplets with Dissolved Salts. Entropy, 2013, 15, 1232-1246.	1.1	27
99	Temperature and voltage dynamic control of PEMFC Stack using MPC method. Energy Reports, 2022, 8, 798-808.	2.5	26
100	Thermodynamic and economic study of PEMFC stack considering degradation characteristic. Energy Conversion and Management, 2021, 235, 114016.	4.4	25
101	Non-isothermal effects of single or double serpentine proton exchange membrane fuel cells. Electrochimica Acta, 2010, 55, 4926-4934.	2.6	24
102	Dynamics of droplets impacting hydrophilic surfaces decorated with a hydrophobic strip. International Journal of Heat and Mass Transfer, 2019, 135, 235-246.	2.5	24
103	Spreading of completely wetting, non-Newtonian fluids with non-power-law rheology. Journal of Colloid and Interface Science, 2010, 348, 250-254.	5.0	22
104	Molecular dynamics investigation on enhancement of heat transfer between electrified solid surface and liquid water. International Journal of Heat and Mass Transfer, 2018, 125, 756-760.	2.5	22
105	Numerical analysis for transient supercooling effect of pulse current shapes on a two-stage thermoelectric cooler. Applied Thermal Engineering, 2019, 163, 114416.	3.0	22
106	Numerical study of a MIMO-shaped cooling plate in PEMFC stack for heat transfer enhancement. Energy Reports, 2021, 7, 5804-5814.	2.5	22
107	Does macroscopic flow geometry influence wetting dynamic?. Journal of Colloid and Interface Science, 2011, 362, 221-227.	5.0	21
108	Experimental study on the dynamic wetting of dilute nanofluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 486, 6-13.	2.3	21

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109	Optimization of a serpentine flow field with variable channel heights and widths for PEM fuel cells. Science China Technological Sciences, 2010, 53, 453-460.	2.0	20
110	Gas diffusion layer properties on the performance of proton exchange membrane fuel cell: pc-s relationship with K-function. International Journal of Hydrogen Energy, 2016, 41, 21827-21837.	3.8	20
111	Acceleration of aqueous nano-film evaporation by applying parallel electric field: A molecular dynamics simulation. International Journal of Heat and Mass Transfer, 2019, 138, 68-74.	2.5	20
112	Performance of Parallel, Interdigitated, and Serpentine Flow Field PEM Fuel Cells with Straight or Wavelike Channels. Journal of Energy Engineering - ASCE, 2020, 146, .	1.0	20
113	Theoretical analysis of performance of variable cross-section thermoelectric generators: Effects of shape factor and thermal boundary conditions. Energy, 2020, 201, 117660.	4.5	20
114	Electrowetting-based control of wetting transition of a nanodroplet on pillar-arrayed surfaces. Journal of Molecular Liquids, 2022, 345, 117049.	2.3	20
115	Phase diagram for nanodroplet impact on solid surfaces. Physics of Fluids, 2021, 33, .	1.6	19
116	Effects of Free Surface Evaporation on Water Nanodroplet Wetting Kinetics: A Molecular Dynamics Study. Journal of Heat Transfer, 2015, 137, .	1.2	18
117	Rebound dynamics of two droplets simultaneously impacting a flat superhydrophobic surface. AICHE Journal, 2020, 66, e16647.	1.8	17
118	Numerical study on transient supercooling performance of annular thermoelectric cooler. Applied Thermal Engineering, 2021, 182, 116090.	3.0	17
119	Electrical Double Layer of Linear Tricationic Ionic Liquids at Graphite Electrode. Journal of Physical Chemistry C, 2020, 124, 15723-15729.	1.5	16
120	Transient supercooling performance of thermoelectric coolers with a continuous double current pulse. Journal of the Taiwan Institute of Chemical Engineers, 2021, 120, 127-135.	2.7	16
121	Experimental investigation on boiling heat transfer enhanced by gradient aperture porous copper. Applied Thermal Engineering, 2021, 191, 116877.	3.0	16
122	The Cassie-to-Wenzel wetting transition of water films on textured surfaces with different topologies. Physics of Fluids, 2021, 33, .	1.6	16
123	Molecular dynamics simulations on dissolutive wetting of Alâ€“Ni alloy droplets on NiAl substrate. Journal of the Taiwan Institute of Chemical Engineers, 2017, 75, 51-58.	2.7	15
124	Transient supercooling behaviors of a novel two-stage Peltier cooler. Applied Thermal Engineering, 2018, 143, 248-256.	3.0	15
125	Contact time of a droplet impacting hydrophobic surfaces. Physics of Fluids, 2022, 34, .	1.6	15
126	A Comprehensive Review on Measurement and Correlation Development of Capillary Pressure for Two-Phase Modeling of Proton Exchange Membrane Fuel Cells. Journal of Chemistry, 2015, 2015, 1-17.	0.9	14

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127	High-temperature reactive wetting systems: Role of lattice constant. Chemical Engineering Science, 2019, 209, 115206.	1.9	14
128	Spreading Time of Impacting Nanodroplets. Journal of Physical Chemistry B, 2021, 125, 5630-5635.	1.2	14
129	Splash of impacting nanodroplets on solid surfaces. Physical Review Fluids, 2021, 6, .	1.0	14
130	Bubble dynamics and heat transfer characteristics on a micropillar-structured surface with different nucleation site positions. Journal of Thermal Analysis and Calorimetry, 2020, 141, 447-464.	2.0	13
131	Dynamic spreading of a water nanodroplet on a nanostructured surface in the presence of an electric field. Journal of Molecular Liquids, 2021, 333, 116039.	2.3	13
132	Performance investigation of proton exchange membrane fuel cells with curved membrane electrode assemblies caused by pressure differences between cathode and anode. International Journal of Hydrogen Energy, 2021, 46, 37393-37405.	3.8	13
133	Impact regimes of nanodroplets impacting nanopillared surfaces. Physical Review Fluids, 2022, 7, .	1.0	13
134	Effects of torsion on the thermal conductivity of multi-layer graphene. Journal of Applied Physics, 2017, 121, .	1.1	12
135	Lattice kinetic scheme for the Navier-Stokes equations coupled with convection-diffusion equations. Physical Review E, 2018, 98, .	0.8	12
136	Highly heterogeneous interior structure of biofilm wastewater for enhanced pollutant removals. Bioresource Technology, 2019, 291, 121919.	4.8	12
137	Harnessing Reversible Wetting Transition to Sweep Contaminated Superhydrophobic Surfaces. Langmuir, 2021, 37, 3929-3938.	1.6	12
138	Dynamic behaviors of two droplets impacting an inclined superhydrophobic substrate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 623, 126725.	2.3	12
139	Re-touch rebound patterns and contact time for a droplet impacting a superhydrophobic cylinder. Journal of the Taiwan Institute of Chemical Engineers, 2021, 126, 359-370.	2.7	12
140	Numerical study of seed bubble-triggered evaporation heat transfer in a single microtube. Microfluidics and Nanofluidics, 2014, 16, 347-360.	1.0	11
141	Nucleate boiling inside small evaporating droplets: An experimental and numerical study. International Journal of Heat and Mass Transfer, 2017, 108, 2253-2261.	2.5	11
142	Molecular dynamics study of high temperature wetting kinetics for Al/NiAl and Al/Ni3Al systems: Effects of grain boundaries. Chemical Engineering Science, 2017, 174, 127-135.	1.9	11
143	A comprehensive analysis about thermal conductivity of multi-layer graphene with N-doping, -CH3 group, and single vacancy. Journal of Applied Physics, 2018, 123, .	1.1	11
144	Rebound Behaviors of Multiple Droplets Simultaneously Impacting a Superhydrophobic Surface. Langmuir, 2021, 37, 11233-11241.	1.6	11

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145	Electrocoalescence of two charged nanodroplets under different types of external electric fields. Journal of Molecular Liquids, 2021, 341, 117417.	2.3	11
146	Effects of Nanodroplet Sizes on Wettability, Electrowetting Transition, and Spontaneous Dewetting Transition on Nanopillar-Arrayed Surfaces. Langmuir, 2021, 37, 14571-14581.	1.6	11
147	Droplet spreading and permeating on the hybrid-wettability porous substrates: a lattice Boltzmann method study. Open Physics, 2016, 14, 483-491.	0.8	10
148	Nucleation and sliding growth of boiling bubbles on locally heated silicon surfaces. Applied Thermal Engineering, 2018, 143, 1068-1078.	3.0	10
149	Droplet dynamic behaviors on gas diffusion layer surface of various wettabilities in a PEMFC gas flow channel. International Journal of Green Energy, 2021, 18, 1369-1382.	2.1	10
150	Explosive boiling of argon nanofilms in the Wenzel or Cassie state on high-temperature nanopillar-arrayed surfaces. International Journal of Thermal Sciences, 2022, 172, 107282.	2.6	10
151	Spreading of a nanodroplet over isothermally heated smooth and nanostructured surfaces: A molecular dynamics study. International Journal of Thermal Sciences, 2021, 159, 106649.	2.6	9
152	Biofilm with highly heterogeneous interior structure for pollutant removal: Cell distribution and manipulated mass transport. Bioresource Technology, 2022, 343, 125913.	4.8	9
153	Effects of thermal conductivity and wettability of porous materials on the boiling heat transfer. International Journal of Thermal Sciences, 2021, 170, 107110.	2.6	9
154	Size Control Mechanism for Bio-Nanoparticle Fabricated by Electrospray Deposition. Drying Technology, 2015, 33, 406-413.	1.7	8
155	Reinforcement of protonâ€exchange membrane fuel cell performance through a novel flow field design with auxiliary channels and a hole array. AICHE Journal, 2022, 68, e17461.	1.8	8
156	Coalescence-induced jumping and condensation of argon nanodroplets in the Cassie or the Wenzel state on nanopillar-arrayed surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 628, 127269.	2.3	8
157	Water vapor condensation on binary mixed substrates: A molecular dynamics study. International Journal of Heat and Mass Transfer, 2022, 184, 122281.	2.5	8
158	Structure and Capacitance of Electrical Double Layers in Tricationic Ionic Liquids with Organic Solvents. Journal of Physical Chemistry B, 2021, 125, 12753-12762.	1.2	8
159	Dewetting kinetics of metallic liquid films: Competition between unbalanced Youngâ€™s force and dissolutive reaction. Chemical Physics Letters, 2017, 687, 91-95.	1.2	7
160	Equivalent Stiffness Model of a Proton Exchange Membrane Fuel Cell Stack Including Hygrothermal Effects and Dimensional Tolerances. Journal of Electrochemical Energy Conversion and Storage, 2018, 15, .	1.1	7
161	Bubble dynamics and heat transfer performance on micro-pillars structured surfaces with various pillars heights. International Journal of Heat and Mass Transfer, 2020, 163, 120502.	2.5	7
162	Contact Time of Double-Droplet Impacting Superhydrophobic Surfaces with Different Macrotextures. Processes, 2020, 8, 896.	1.3	6

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163	Coalescence-induced jumping of nanodroplets on mixed-wettability superhydrophobic surfaces. Canadian Journal of Physics, 2021, 99, 297-301.	0.4	6
164	Controllable splitting of impacting droplets by hybrid-wettability surface. Journal of the Taiwan Institute of Chemical Engineers, 2020, 111, 24-33.	2.7	5
165	Rebound Dynamics of Two Droplets Successively Impacting an Inclined Surface. Coatings, 2020, 10, 592.	1.2	5
166	Maximum spreading factor for nanodroplets impacting a hydrophobic surface under a perpendicular electric field. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 623, 126769.	2.3	5
167	Impacting-bouncing nanodroplets on superhydrophobic surfaces under electric fields. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 629, 127513.	2.3	5
168	Relaxation Dynamics of Non-Power-Law Fluids. International Journal of Thermophysics, 2013, 34, 2276-2285.	1.0	4
169	Electrowetting-on-dielectric-induced nanodroplet splitting between two parallel plates. Microfluidics and Nanofluidics, 2021, 25, 1.	1.0	4
170	Forced Wetting Dynamics of Sodium Dodecyl Sulfate Glycerol Solution on Solid Substrates. International Journal of Thermophysics, 2013, 34, 2286-2296.	1.0	3
171	Energy analysis on rebound dynamics of two droplets impacting a superhydrophobic surface simultaneously. AIP Advances, 2021, 11, 055007.	0.6	3
172	Molecular Dynamics Investigation on Thermal Conductivity and Phonon Transmission of Folded Graphene. ECS Journal of Solid State Science and Technology, 2020, 9, 093005.	0.9	3
173	Dynamic coalescence of two charged droplets with deflected angles in the presence of electric fields. Journal of Molecular Liquids, 2022, 353, 118812.	2.3	3
174	Inhibition of adhesion of <scp>CaCO₃</scp> scale by polydopamine/polytetrafluoroethylene coating with stability and anticorrosion properties. Journal of Applied Polymer Science, 2022, 139, .	1.3	3
175	An experimental investigation on spreading of droplets with evaporation and nucleation. Heat Transfer - Asian Research, 2009, 38, 40-50.	2.8	2
176	Effectively inhibiting particles aggregation and sedimentation for TiO₂-H₂O suspension by application of an electrode. Journal of Dispersion Science and Technology, 2023, 44, 679-685.	1.3	2
177	Statics and dynamics of nanodroplet electrowetting on an isothermally heated nanostructured surface. Journal of Molecular Liquids, 2021, 342, 117468.	2.3	2
178	Carrier transport model and novel design for micro thermoelectric generator with enhanced performance. Applied Energy, 2022, 315, 119023.	5.1	2
179	Spreading of Droplets with Evaporation and Nucleation on Solid Surfaces. , 2006, , .		1
180	Inner Phase Change Behavior of Small Liquid Droplet on Heated Solid Surface. , 2011, , .		1

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181	Phononic analyses of rectangular graphene and annular graphene under in-plane shear stress. Journal of Applied Physics, 2021, 129, 233101.	1.1	0
182	Bouncing dynamics of a nanodroplet impacting a superhydrophobic surface under perpendicular electric fields. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 630, 127617.	2.3	0
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