Xiao-Dong Wang

List of Publications by Year in Descending Order

179 papers	4,688 citations	42 h-index	61 g-index
184 ext. papers	6,042 ext. citations	5.7 avg, IF	6.3 L-index

#	Paper	IF	Citations
179	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	4.9	4
178	Temperature and humidity management of PEM fuel cell power system using multi-input and multi-output fuzzy method. *Applied Thermal Engineering*, **2022**, 203, 117865	5.8	3
177	Water management and structure optimization study of nickel metal foam as flow distributors in proton exchange membrane fuel cell. *Applied Energy*, **2022**, 309, 118448	10.7	1
176	Temperature and voltage dynamic control of PEMFC Stack using MPC method. *Energy Reports*, **2022**, 8, 798-808	4.6	4
175	Power generation of thermoelectric generator with plate fins for recovering low-temperature waste heat. *Applied Energy*, **2022**, 306, 118012	10.7	2
174	Numerical Investigation of Tapered Flow Field Configurations for Enhanced Polymer Electrolyte Membrane Fuel Cell Performance. *Applied Energy*, **2022**, 306, 118021	10.7	7
173	Biofilm with highly heterogeneous interior structure for pollutant removal: Cell distribution and manipulated mass transport. *Bioresource Technology*, **2022**, 343, 125913	11	1
172	Heat transfer enhancement of symmetric and parallel wavy microchannel heat sinks with secondary branch design. *International Journal of Thermal Sciences*, **2022**, 171, 107229	4.1	5
171	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	4.1	1
170	Scaling laws of the maximum spreading factor for impact of nanodroplets on solid surfaces. *Journal of Fluid Mechanics*, **2022**, 937,	3.7	5
169	Dynamic coalescence of two charged droplets with deflected angles in the presence of electric fields. *Journal of Molecular Liquids*, **2022**, 353, 118812	6	0
168	Retraction dynamics of low-viscosity nanodroplets: From hydrophobic to hydrophilic surfaces. *Journal of Molecular Liquids*, **2022**, 355, 118963	6	3
167	Carrier transport model and novel design for micro thermoelectric generator with enhanced performance. *Applied Energy*, **2022**, 315, 119023	10.7	0
166	Inhibition of adhesion of CaCO 3 scale by polydopamine/polytetrafluoroethylene coating with stability and anticorrosion properties. *Journal of Applied Polymer Science*, **2022**, 139, 52066	2.9	1
165	Water vapor condensation on binary mixed substrates: A molecular dynamics study. *International Journal of Heat and Mass Transfer*, **2021**, 184, 122281	4.9	2
164	The Cassie-to-Wenzel wetting transition of water films on textured surfaces with different topologies. *Physics of Fluids*, **2021**, 33, 112006	4.4	1
163	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*, **2021**, 252, 115069	10.6	6

162	Phase diagram for nanodroplet impact on solid surfaces. *Physics of Fluids*, **2021**, 33, 102007	4.4	2
161	Transient supercooling performance of thermoelectric coolers with a continuous double current pulse. *Journal of the Taiwan Institute of Chemical Engineers*, **2021**, 120, 127-135	5.3	5
160	Harnessing Reversible Wetting Transition to Sweep Contaminated Superhydrophobic Surfaces. *Langmuir*, **2021**, 37, 3929-3938	4	3
159	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	10.6	18
158	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	3	0
157	Energy analysis on rebound dynamics of two droplets impacting a superhydrophobic surface simultaneously. *AIP Advances*, **2021**, 11, 055007	1.5	1
156	Spreading Time of Impacting Nanodroplets. *Journal of Physical Chemistry B*, **2021**, 125, 5630-5635	3.4	5
155	Thermodynamic and economic study of PEMFC stack considering degradation characteristic. *Energy Conversion and Management*, **2021**, 235, 114016	10.6	9
154	Phononic analyses of rectangular graphene and annular graphene under in-plane shear stress. *Journal of Applied Physics*, **2021**, 129, 233101	2.5	
153	Experimental investigation on boiling heat transfer enhanced by gradient aperture porous copper. *Applied Thermal Engineering*, **2021**, 191, 116877	5.8	2
152	Coalescence-induced jumping of nanodroplets on mixed-wettability superhydrophobic surfaces. *Canadian Journal of Physics*, **2021**, 99, 297-301	1.1	3
151	Numerical study on transient supercooling performance of annular thermoelectric cooler. *Applied Thermal Engineering*, **2021**, 182, 116090	5.8	4
150	Spreading of a nanodroplet over isothermally heated smooth and nanostructured surfaces: A molecular dynamics study. *International Journal of Thermal Sciences*, **2021**, 159, 106649	4.1	4
149	Influence of Wave Parallel Flow Field Design on the Performance of PEMFC. *Journal of Energy Engineering - ASCE*, **2021**, 147, 04020080	1.7	4
148	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	10.6	17
147	Geometry optimization of a novel M-like flow field in a proton exchange membrane fuel cell. *Energy Conversion and Management*, **2021**, 228, 113651	10.6	15
146	Electrowetting-on-dielectric-induced nanodroplet splitting between two parallel plates. *Microfluidics and Nanofluidics*, **2021**, 25, 1	2.8	0
145	Electrowetting-based control of wetting transition of a nanodroplet on pillar-arrayed surfaces. *Journal of Molecular Liquids*, **2021**, 345, 117049	6	6

144	Dynamic spreading of a water nanodroplet on a nanostructured surface in the presence of an electric field. *Journal of Molecular Liquids*, **2021**, 333, 116039	6	5
143	Dynamic behaviors of two droplets impacting an inclined superhydrophobic substrate. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2021**, 623, 126725	5.1	5
142	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	5.1	4
141	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	5.3	2
140	Splash of impacting nanodroplets on solid surfaces. *Physical Review Fluids*, **2021**, 6,	2.8	5
139	Rebound Behaviors of Multiple Droplets Simultaneously Impacting a Superhydrophobic Surface. *Langmuir*, **2021**, 37, 11233-11241	4	2
138	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**,	6.7	3
137	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	14.3	7
136	Droplet dynamic characteristics on PEM fuel cell cathode gas diffusion layer with gradient pore size distribution. *Renewable Energy*, **2021**, 178, 864-874	8.1	13
135	Performance study on a stepped flow field design for bipolar plate in PEMFC. *Energy Reports*, **2021**, 7, 336-347	4.6	11
134	Numerical study of a MIMO-shaped cooling plate in PEMFC stack for heat transfer enhancement. *Energy Reports*, **2021**, 7, 5804-5814	4.6	4
133	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	5.1	3
132	Statics and dynamics of nanodroplet electrowetting on an isothermally heated nanostructured surface. *Journal of Molecular Liquids*, **2021**, 342, 117468	6	
131	Impacting-bouncing nanodroplets on superhydrophobic surfaces under electric fields. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2021**, 629, 127513	5.1	2
130	Electrocoalescence of two charged nanodroplets under different types of external electric fields. *Journal of Molecular Liquids*, **2021**, 341, 117417	6	2
129	Effects of thermal conductivity and wettability of porous materials on the boiling heat transfer. *International Journal of Thermal Sciences*, **2021**, 170, 107110	4.1	1
128	Bouncing dynamics of a nanodroplet impacting a superhydrophobic surface under perpendicular electric fields. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2021**, 630, 127617	5.1	
127	Contact time on inclined superhydrophobic surfaces decorated with parallel macro-ridges. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2020**, 599, 124924	5.1	14

126	Controllable splitting of impacting droplets by hybrid-wettability surface. *Journal of the Taiwan Institute of Chemical Engineers*, **2020**, 111, 24-33	5.3	
125	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	6	13
124	A computational fluid dynamics (CFD) approach of thermoelectric generator (TEG) for power generation. *Applied Thermal Engineering*, **2020**, 173, 115203	5.8	20
123	Contact Time of a Bouncing Nanodroplet. *Journal of Physical Chemistry Letters*, **2020**, 11, 2818-2823	6.4	30
122	Electrical Double Layer of Linear Tricationic Ionic Liquids at Graphite Electrode. *Journal of Physical Chemistry C*, **2020**, 124, 15723-15729	3.8	4
121	Rebound dynamics of two droplets simultaneously impacting a flat superhydrophobic surface. *AICHE Journal*, **2020**, 66, e16647	3.6	5
120	Rebound Dynamics of Two Droplets Successively Impacting an Inclined Surface. *Coatings*, **2020**, 10, 592	2.9	3
119	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	4.1	6
118	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	4.1	18
117	Theoretical analysis of performance of variable cross-section thermoelectric generators: Effects of shape factor and thermal boundary conditions. *Energy*, **2020**, 201, 117660	7.9	10
116	Molecular Dynamics Investigation on Thermal Conductivity and Phonon Transmission of Folded Graphene. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 093005	2	2
115	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	10.6	11
114	Active disturbance rejection control strategy applied to cathode humidity control in PEMFC system. *Energy Conversion and Management*, **2020**, 224, 113389	10.6	16
113	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	10.6	16
112	Universal Model for the Maximum Spreading Factor of Impacting Nanodroplets: From Hydrophilic to Hydrophobic Surfaces. *Langmuir*, **2020**, 36, 9306-9316	4	22
111	Contact Time of Double-Droplet Impacting Superhydrophobic Surfaces with Different Macrotextures. *Processes*, **2020**, 8, 896	2.9	3
110	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	4.9	1
109	Spreading and retraction kinetics for impact of nanodroplets on hydrophobic surfaces. *Physics of Fluids*, **2020**, 32, 092005	4.4	14

108	Performance of Parallel, Interdigitated, and Serpentine Flow Field PEM Fuel Cells with Straight or Wavelike Channels. *Journal of Energy Engineering - ASCE*, **2020**, 146, 04020054	1.7	6
107	High-temperature reactive wetting systems: Role of lattice constant. *Chemical Engineering Science*, **2019**, 209, 115206	4.4	5
106	Numerical analysis for transient supercooling effect of pulse current shapes on a two-stage thermoelectric cooler. *Applied Thermal Engineering*, **2019**, 163, 114416	5.8	11
105	Performance comparison of wavy microchannel heat sinks with wavy bottom rib and side rib designs. *International Journal of Thermal Sciences*, **2019**, 146, 106068	4.1	22
104	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	4.9	16
103	The Maximum Spreading Factor for Polymer Nanodroplets Impacting a Hydrophobic Solid Surface. *Journal of Physical Chemistry C*, **2019**,	3.8	26
102	A comprehensive analysis of the performance of thermoelectric generators with constant and variable properties. *Applied Energy*, **2019**, 241, 11-24	10.7	22
101	Dynamics of droplets impacting hydrophilic surfaces decorated with a hydrophobic strip. *International Journal of Heat and Mass Transfer*, **2019**, 135, 235-246	4.9	12
100	A new configuration design of thermoelectric cooler driven by thermoelectric generator. *Applied Thermal Engineering*, **2019**, 160, 114087	5.8	21
99	Highly heterogeneous interior structure of biofilm wastewater for enhanced pollutant removals. *Bioresource Technology*, **2019**, 291, 121919	11	5
98	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	4.9	30
97	Wetting Transition from the Cassie-Baxter State to the Wenzel State on Regularly Nanostructured Surfaces Induced by an Electric Field. *Langmuir*, **2019**, 35, 662-670	4	20
96	Selected porous-ribs design for performance improvement in double-layered microchannel heat sinks. *International Journal of Thermal Sciences*, **2019**, 137, 616-626	4.1	42
95	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	4.9	27
94	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,	2	3
93	Adsorption removal of natural organic matters in waters using biochar. *Bioresource Technology*, **2018**, 260, 413-416	11	32
92	A comprehensive analysis about thermal conductivity of multi-layer graphene with N-doping, -CH3 group, and single vacancy. *Journal of Applied Physics*, **2018**, 123, 135101	2.5	10
91	Coalescence-Induced Jumping of Two Unequal-Sized Nanodroplets. *Langmuir*, **2018**, 34, 2734-2740	4	46

90	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	5.8	55
89	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	4.9	20
88	Nucleation and sliding growth of boiling bubbles on locally heated silicon surfaces. *Applied Thermal Engineering*, **2018**, 143, 1068-1078	5.8	7
87	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	4.1	36
86	Transient supercooling behaviors of a novel two-stage Peltier cooler. *Applied Thermal Engineering*, **2018**, 143, 248-256	5.8	11
85	Enhancement of Coalescence-Induced Nanodroplet Jumping on Superhydrophobic Surfaces. *Langmuir*, **2018**, 34, 11195-11203	4	33
84	Lattice kinetic scheme for the Navier-Stokes equations coupled with convection-diffusion equations. *Physical Review E*, **2018**, 98,	2.4	12
83	A new design of solar thermoelectric generator with combination of segmented materials and asymmetrical legs. *Energy Conversion and Management*, **2018**, 175, 11-20	10.6	44
82	Proteomic researches for lignocellulose-degrading enzymes: A mini-review. *Bioresource Technology*, **2018**, 265, 532-541	11	26
81	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	4.9	10
80	Nucleate boiling inside small evaporating droplets: An experimental and numerical study. *International Journal of Heat and Mass Transfer*, **2017**, 108, 2253-2261	4.9	7
79	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	4.9	32
78	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	4.9	74
77	Molecular dynamics simulations on dissolutive wetting of Al□Ni alloy droplets on NiAl substrate. *Journal of the Taiwan Institute of Chemical Engineers*, **2017**, 75, 51-58	5.3	8
76	Performance of a thermoelectric generator intensified by temperature oscillation. *Energy*, **2017**, 133, 257-269	7.9	33
75	Heat transfer enhancement in microchannel heat sink by wavy channel with changing wavelength/amplitude. *International Journal of Thermal Sciences*, **2017**, 118, 423-434	4.1	134
74	Effects of torsion on the thermal conductivity of multi-layer graphene. *Journal of Applied Physics*, **2017**, 121, 205102	2.5	9
73	Investigation of heat transfer enhancement by electrohydrodynamics in a double-wall-heated channel. *International Journal of Heat and Mass Transfer*, **2017**, 113, 373-383	4.9	34

72	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	4.9	49
71	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	4.4	5
70	Dewetting kinetics of metallic liquid films: Competition between unbalanced Young force and dissolutive reaction. *Chemical Physics Letters*, **2017**, 687, 91-95	2.5	4
69	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	10.7	62
68	Enhanced Peltier cooling of two-stage thermoelectric cooler via pulse currents. *International Journal of Heat and Mass Transfer*, **2017**, 114, 656-663	4.9	35
67	Electrocoalescence behavior of two identical droplets with various droplet radii. *Applied Thermal Engineering*, **2017**, 111, 1464-1469	5.8	22
66	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	6.7	14
65	Power output and efficiency of a thermoelectric generator under temperature control. *Energy Conversion and Management*, **2016**, 127, 404-415	10.6	45
64	Electro-coalescence of two charged droplets under constant and pulsed DC electric fields. *International Journal of Heat and Mass Transfer*, **2016**, 98, 10-16	4.9	26
63	Improvement of transient supercooling of thermoelectric coolers through variable semiconductor cross-section. *Applied Energy*, **2016**, 164, 501-508	10.7	30
62	Heat transfer enhancement of microchannel heat sink using transcritical carbon dioxide as the coolant. *Energy Conversion and Management*, **2016**, 110, 154-164	10.6	23
61	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	4.9	42
60	Droplet spreading and permeating on the hybrid-wettability porous substrates: a lattice Boltzmann method study. *Open Physics*, **2016**, 14, 483-491	1.3	9
59	Enhancement of maximum temperature drop across thermoelectric cooler through two-stage design and transient supercooling effect. *Applied Energy*, **2016**, 175, 285-292	10.7	48
58	Thermodynamic approach and comparison of two-step and single step DME (dimethyl ether) syntheses with carbon dioxide utilization. *Energy*, **2016**, 109, 326-340	7.9	42
57	Performance investigation and design optimization of a thermoelectric generator applied in automobile exhaust waste heat recovery. *Energy Conversion and Management*, **2016**, 120, 71-80	10.6	99
56	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	14.3	108
55	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	4.9	84

54	Molecular Dynamics Simulations on Coalescence and Non-coalescence of Conducting Droplets. *Langmuir*, **2015**, 31, 7457-62	4	54
53	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	5.8	94
52	Optimal pulse current shape for transient supercooling of thermoelectric cooler. *Energy*, **2015**, 83, 788-796	7.9	29
51	Experimental study on the dynamic wetting of dilute nanofluids. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2015**, 486, 6-13	5.1	17
50	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	4.9	62
49	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	4.9	24
48	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	2.3	9
47	Parameter analysis and optimal design for two-stage thermoelectric cooler. *Applied Energy*, **2015**, 154, 1-12	10.7	45
46	Effects of Free Surface Evaporation on Water Nanodroplet Wetting Kinetics: A Molecular Dynamics Study. *Journal of Heat Transfer*, **2015**, 137,	1.8	16
45	Size Control Mechanism for Bio-Nanoparticle Fabricated by Electrospray Deposition. *Drying Technology*, **2015**, 33, 406-413	2.6	7
44	Optimization of thermal resistance and bottom wall temperature uniformity for double-layered microchannel heat sink. *Energy Conversion and Management*, **2015**, 93, 141-150	10.6	82
43	An improved design of double-layered microchannel heat sink with truncated top channels. *Applied Thermal Engineering*, **2015**, 79, 54-62	5.8	111
42	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	4.9	54
41	Surface tension, viscosity, and rheology of water-based nanofluids: a microscopic interpretation on the molecular level. *Journal of Nanoparticle Research*, **2014**, 16, 1	2.3	52
40	Multi-objective and multi-parameter optimization of a thermoelectric generator module. *Energy*, **2014**, 71, 367-376	7.9	79
39	Numerical study of seed bubble-triggered evaporation heat transfer in a single microtube. *Microfluidics and Nanofluidics*, **2014**, 16, 347-360	2.8	6
38	Dynamic response characteristics of thermoelectric generator predicted by a three-dimensional heat-electricity coupled model. *Journal of Power Sources*, **2014**, 245, 262-269	8.9	66
37	Microscopic mechanism for the effect of adding salt on electrospinning by molecular dynamics simulations. *Applied Physics Letters*, **2014**, 105, 121906	3.4	24

36	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	5.3	19
35	Optimization of geometry and flow rate distribution for double-layer microchannel heat sink. *International Journal of Thermal Sciences*, **2014**, 78, 158-168	4.1	95
34	Performance analysis of two-stage TECs (thermoelectric coolers) using a three-dimensional heat-electricity coupled model. *Energy*, **2014**, 65, 419-429	7.9	43
33	Inverse geometric optimization for geometry of nanofluid-cooled microchannel heat sink. *Applied Thermal Engineering*, **2013**, 55, 87-94	5.8	81
32	Transient modeling and dynamic characteristics of thermoelectric cooler. *Applied Energy*, **2013**, 108, 340-348	5.9	101
31	Geometry optimization of thermoelectric coolers using simplified conjugate-gradient method. *Energy*, **2013**, 59, 689-697	7.9	75
30	Relaxation Dynamics of Non-Power-Law Fluids. *International Journal of Thermophysics*, **2013**, 34, 2276-2285	2.1	3
29	Forced Wetting Dynamics of Sodium Dodecyl Sulfate Glycerol Solution on Solid Substrates. *International Journal of Thermophysics*, **2013**, 34, 2286-2296	2.1	3
28	Study on initial stage of capillary rise dynamics. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2013**, 433, 95-103	5.1	19
27	Optimal geometric structure for nanofluid-cooled microchannel heat sink under various constraint conditions. *Energy Conversion and Management*, **2013**, 65, 528-538	10.6	116
26	Molecular Dynamics Simulations on Evaporation of Droplets with Dissolved Salts. *Entropy*, **2013**, 15, 1232-1246	2.8	21
25	Effects of solid–gas coupling and pore and particle microstructures on the effective gaseous thermal conductivity in aerogels. *Journal of Nanoparticle Research*, **2012**, 14, 1	2.3	65
24	A three-dimensional numerical modeling of thermoelectric device with consideration of coupling of temperature field and electric potential field. *Energy*, **2012**, 47, 488-497	7.9	126
23	Heat transfer enhancement in microchannel heat sinks using nanofluids. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2559-2570	4.9	131
22	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	5.1	24
21	Inner Phase Change Behavior of Small Liquid Droplet on Heated Solid Surface **2011**,		1
20	Effect of nanofluids on thin film evaporation in microchannels. *Journal of Nanoparticle Research*, **2011**, 13, 5033-5047	2.3	45
19	Multi-parameters optimization for microchannel heat sink using inverse problem method. *International Journal of Heat and Mass Transfer*, **2011**, 54, 2811-2819	4.9	83

18	Internal flow in evaporating droplet on heated solid surface. *International Journal of Heat and Mass Transfer*, **2011**, 54, 4437-4447	4.9	85
17	Does macroscopic flow geometry influence wetting dynamic?. *Journal of Colloid and Interface Science*, **2011**, 362, 221-7	9.3	18
16	Dynamic wetting of non-newtonian fluids: multicomponent molecular-kinetic approach. *Langmuir*, **2010**, 26, 14594-9	4	18
15	Non-isothermal effects of single or double serpentine proton exchange membrane fuel cells. *Electrochimica Acta*, **2010**, 55, 4926-4934	6.7	21
14	Optimization of a serpentine flow field with variable channel heights and widths for PEM fuel cells. *Science China Technological Sciences*, **2010**, 53, 453-460	3.5	15
13	Numerical study on channel size effect for proton exchange membrane fuel cell with serpentine flow field. *Energy Conversion and Management*, **2010**, 51, 959-968	10.6	85
12	Spreading of completely wetting, non-Newtonian fluids with non-power-law rheology. *Journal of Colloid and Interface Science*, **2010**, 348, 250-4	9.3	15
11	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	6.7	81
10	An experimental investigation on spreading of droplets with evaporation and nucleation. *Heat Transfer - Asian Research*, **2009**, 38, 40-50	2.8	2
9	Flow field optimization for proton exchange membrane fuel cells with varying channel heights and widths. *Electrochimica Acta*, **2009**, 54, 5522-5530	6.7	38
8	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	6.7	62
7	Channel aspect ratio effect for serpentine proton exchange membrane fuel cell: Role of sub-rib convection. *Journal of Power Sources*, **2009**, 193, 684-690	8.9	41
6	Spreading dynamics of power-law fluid droplets. *Journal of Physics Condensed Matter*, **2009**, 21, 464117	1.8	17
5	Local transport phenomena and cell performance of PEM fuel cells with various serpentine flow field designs. *Journal of Power Sources*, **2008**, 175, 397-407	8.9	100
4	Novel serpentine-baffle flow field design for proton exchange membrane fuel cells. *Journal of Power Sources*, **2007**, 173, 210-221	8.9	95
3	Spreading of Droplets with Evaporation and Nucleation on Solid Surfaces **2006**,		1
2	Effectively inhibiting particles aggregation and sedimentation for TiO2-H2O suspension by application of an electrode. *Journal of Dispersion Science and Technology*,1-7	1.5	
1	Reinforcement of proton-exchange membrane fuel cell performance through a novel flow field design with auxiliary channels and a hole array. *AICHE Journal*,e17461	3.6	1