Jinliang Xu

List of Publications by Year in Descending Order

134 papers	2,669 citations	29 h-index	45 g-index
150 ext. papers	3,476 ext. citations	5.4 avg, IF	5.96 L-index

#	Paper	IF	Citations
134	Development and validation of a Riemann solver in OpenFOAM for non-ideal compressible fluid dynamics. *Engineering Applications of Computational Fluid Mechanics*, **2022**, 16, 116-140	4.5	1
133	Condensation heat transfer deterioration on superhydrophobic surface with dense nanostructures. *Journal of Physics: Conference Series*, **2022**, 2230, 012027	0.3	
132	Development and application of a modularized geometry optimizer for future supercritical CO2 turbomachinery optimization. *Engineering Applications of Computational Fluid Mechanics*, **2022**, 16, 95-114	4.5	1
131	Numerical study on convective heat transfer of supercritical CO2 in vertically upward and downward tubes. *Science China Technological Sciences*, **2021**, 64, 995-1006	3.5	2
130	Line Tension of Nanodroplets on a Concave Surface. *Langmuir*, **2021**, 37, 4432-4440	4	2
129	In Situ Oil Separation and Collection from Water under Surface Wave Condition. *Langmuir*, **2021**, 37, 6257-6267	4	
128	Novel Matching Strategy for the Coupling of Heat Flux in Furnace Side and CO2 Temperature in Tube Side to Control the Cooling Wall Temperatures. *Journal of Thermal Science*, **2021**, 30, 1251-1267	1.9	1
127	Heat Transfer Prediction of Supercritical Carbon Dioxide in Vertical Tube Based on Artificial Neural Networks. *Journal of Thermal Science*, **2021**, 30, 1751-1767	1.9	0
126	Phase distribution including a bubblelike region in supercritical fluid. *Physical Review E*, **2021**, 104, 014142	2.4	4
125	Phase separation evaporator using pin-fin-porous wall microchannels: Comprehensive upgrading of thermal-hydraulic operating performance. *International Journal of Heat and Mass Transfer*, **2021**, 164, 120460	4.9	4
124	Self-activated elastocapillary wave promotes boiling heat transfer on soft liquid metal surface. *International Communications in Heat and Mass Transfer*, **2021**, 120, 105019	5.8	2
123	The K number, a new analogy criterion number to connect pressure drop and heat transfer of sCO2 in vertical tubes. *Applied Thermal Engineering*, **2021**, 182, 116078	5.8	3
122	Numerical investigations of head-on collisions of binary unequal-sized droplets on superhydrophobic walls. *Physics of Fluids*, **2021**, 33, 032001	4.4	5
121	Theoretical Analysis of a Sessile Evaporating Droplet on a Curved Substrate with an Interfacial Cooling Effect. *Langmuir*, **2020**, 36, 5618-5625	4	12
120	A comprehensive comparison between substrate heating and light heating induced nanofluid droplet evaporations. *Applied Thermal Engineering*, **2020**, 175, 115389	5.8	4
119	Synergetics: The cooperative phenomenon in multi-compressions S-CO2 power cycles. *Energy Conversion and Management: X*, **2020**, 7, 100042	2.5	1
118	A New Mechanism of Light-Induced Bubble Growth to Propel Microbubble Piston Engine. *Small*, **2020**, 16, e2001548	11	8

117	Does sunlight always accelerate water droplet evaporation?. *Applied Physics Letters*, **2020**, 116, 253903	3.4	1
116	Life Cycle Assessment Analysis and Comparison of 1000 MW S-CO2 Coal Fired Power Plant and 1000 MW USC Water-Steam Coal-Fired Power Plant. *Journal of Thermal Science*, **2020**, 1	1.9	3
115	Multiscale Characteristic in Symmetric/Asymmetric Solar-Driven Nanofluid Droplet Evaporation. *Langmuir*, **2020**, 36, 1680-1690	4	2
114	Numerical Analysis on Heat Transfer Characteristics of Supercritical CO in Heated Vertical Up-flow Tube. *Materials*, **2020**, 13,	3.5	3
113	Nucleate boiling on nanostructured surfaces using molecular dynamics simulations. *International Journal of Thermal Sciences*, **2020**, 152, 106325	4.1	12
112	Numerical analysis of bubble bursting at the liquid surface by wave propagation. *International Journal of Thermal Sciences*, **2020**, 152, 106341	4.1	2
111	The energy-saving mechanism of coal-fired power plant with S□CO2 cycle compared to steam-Rankine cycle. *Energy*, **2020**, 195, 116965	7.9	15
110	Theoretical Analysis on the Lifetime of Sessile Droplet Evaporation. *Mechanisms and Machine Science*, **2020**, 907-914	0.3	
109	Exergy Analysis of Two-Stage Organic Rankine Cycle Power Generation System. *Entropy*, **2020**, 23,	2.8	3
108	Enhancement of loop heat pipe heat transfer performance with superhydrophilic porous wick. *International Journal of Thermal Sciences*, **2020**, 156, 106466	4.1	8
107	Mixed dropwise-filmwise condensation heat transfer on biphilic surface. *International Journal of Heat and Mass Transfer*, **2020**, 150, 119273	4.9	14
106	Solar evaporation for simultaneous steam and power generation. *Journal of Materials Chemistry A*, **2020**, 8, 513-531	13	65
105	Solar steam generation enabled by bubbly flow nanofluids. *Solar Energy Materials and Solar Cells*, **2020**, 206, 110292	6.4	9
104	Manipulation of bubble migration through thermal capillary effect under variable buoyancy. *International Journal of Thermal Sciences*, **2020**, 149, 106199	4.1	4
103	Concept design of supercritical CO2 cycle driven by pressurized fluidized bed combustion (PFBC) boiler. *Applied Thermal Engineering*, **2020**, 166, 114756	5.8	5
102	Critical supercritical-boiling-number to determine the onset of heat transfer deterioration for supercritical fluids. *Solar Energy*, **2020**, 195, 27-36	6.8	15
101	The general supercritical heat transfer correlation for vertical up-flow tubes: K number correlation. *International Journal of Heat and Mass Transfer*, **2020**, 148, 119080	4.9	22
100	Selection criteria of zeotropic mixtures for subcritical organic Rankine cycle based on thermodynamic and thermo-economic analysis. *Applied Thermal Engineering*, **2020**, 180, 115837	5.8	6

99	Effect of non-uniform heating on scCO2 heat transfer deterioration. *Applied Thermal Engineering*, **2020**, 181, 115967	5.8	4
98	Scale law of sCO2 coal fired power plants regarding system performance dependent on power capacities. *Energy Conversion and Management*, **2020**, 226, 113505	10.6	5
97	Failure and Recovery of Droplet Nucleation and Growth on Damaged Nanostructures: A Molecular Dynamics Study. *Langmuir*, **2020**, 36, 13716-13724	4	7
96	Solar vapor generation using bubbly flow nanofluids with collaborative light-harvesting nanoparticles. *Solar Energy*, **2020**, 207, 1214-1221	6.8	5
95	Analysis of a coal-fired power system integrated with a reheat S-CO2 cycle. *Energy Procedia*, **2019**, 158, 1461-1466	2.3	2
94	A comprehensive understanding of enhanced condensation heat transfer using phase separation concept. *Energy*, **2019**, 172, 661-674	7.9	12
93	Single-Reheating or Double-Reheating, Which is Better for S-CO2 Coal Fired Power Generation System?. *Journal of Thermal Science*, **2019**, 28, 431-441	1.9	2
92	Overlap energy utilization reaches maximum efficiency for S-CO2 coal fired power plant: A new principle. *Energy Conversion and Management*, **2019**, 195, 99-113	10.6	21
91	Molecular dynamic simulation of bubble nucleation in a nanochannel with a groove. *AIP Advances*, **2019**, 9, 035044	1.5	1
90	Blue phase liquid crystal microcapsules: confined 3D structure inducing fascinating properties. *Journal of Materials Chemistry C*, **2019**, 7, 4822-4827	7.1	12
89	Effect of fluid dryness and critical temperature on trans-critical organic Rankine cycle. *Energy*, **2019**, 174, 97-109	7.9	12
88	Perspective of S□CO2 power cycles. *Energy*, **2019**, 186, 115831	7.9	46
87	The effect of liquid charge ratio on organic Rankine cycle operation. *Applied Thermal Engineering*, **2019**, 162, 114227	5.8	3
86	Rigorous modelling and deterministic multi-objective optimization of a super-critical CO2 power system based on equation of state and non-linear programming. *Energy Conversion and Management*, **2019**, 198, 111798	10.6	3
85	The connection between wall wettability, boiling regime and symmetry breaking for nanoscale boiling. *International Journal of Thermal Sciences*, **2019**, 145, 106033	4.1	7
84	New combined supercritical carbon dioxide cycles for coal-fired power plants. *Sustainable Cities and Society*, **2019**, 50, 101656	10.1	10
83	Effects of Temperature and Ionic Concentration on Nanodroplet Electrocoalescence. *Langmuir*, **2019**, 35, 750-759	4	9
82	Supercritical □oiling□umber, a new parameter to distinguish two regimes of carbon dioxide heat transfer in tubes. *International Journal of Thermal Sciences*, **2019**, 136, 254-266	4.1	51

81	Thermodynamic selection criteria of zeotropic mixtures for subcritical organic Rankine cycle. *Energy* , **2019**, 167, 484-497	7.9	31
80	The critical nanofluid concentration as the crossover between changed and unchanged solar-driven droplet evaporation rates. *Nano Energy*, **2019**, 57, 791-803	17.1	16
79	Convective dropwise condensation heat transfer in mini-channels with biphilic surface. *International Journal of Heat and Mass Transfer*, **2019**, 134, 69-84	4.9	17
78	Enhanced photoelectric response of plasmon-active ZnO nanorods by spatial modulation of dielectric environment. *Journal of Alloys and Compounds*, **2019**, 776, 149-155	5.7	2
77	Steady and transient operation of an organic Rankine cycle power system. *Renewable Energy*, **2019**, 133, 284-294	8.1	8
76	Dropwise condensation heat transfer on superhydrophilic-hydrophobic network hybrid surface. *International Journal of Heat and Mass Transfer*, **2019**, 132, 52-67	4.9	26
75	Dropwise condensation on superhydrophobic nanostructure surface, Part I: Long-term operation and nanostructure failure. *International Journal of Heat and Mass Transfer*, **2019**, 129, 86-95	4.9	35
74	Recent developments of control strategies for organic Rankine cycle (ORC) systems. *Transactions of the Institute of Measurement and Control*, **2019**, 41, 1528-1539	1.8	5
73	Mode selection between sliding and rolling for droplet on inclined surface: Effect of surface wettability. *International Journal of Heat and Mass Transfer*, **2018**, 122, 45-58	4.9	35
72	Techno-economic study of a distributed hybrid renewable energy system supplying electrical power and heat for a rural house in China. *IOP Conference Series: Earth and Environmental Science*, **2018**, 127, 012001	0.3	2
71	Numerical investigation of droplet spreading and heat transfer on hot substrates. *International Journal of Heat and Mass Transfer*, **2018**, 121, 402-411	4.9	19
70	Numerical investigation on spontaneous droplet/bubble migration under thermal radiation. *International Journal of Thermal Sciences*, **2018**, 129, 115-123	4.1	4
69	Non-dimensional numerical study of droplet impacting on heterogeneous hydrophilicity/hydrophobicity surface. *International Journal of Heat and Mass Transfer*, **2018**, 116, 951-968	4.9	13
68	R245fa condensation heat transfer in a phase separation condenser. *Experimental Thermal and Fluid Science*, **2018**, 98, 346-361	3	7
67	Switchable heat transfer in nano Janus-interface-system. *International Journal of Heat and Mass Transfer*, **2018**, 127, 761-771	4.9	7
66	3D heterogeneous wetting microchannel surfaces for boiling heat transfer enhancement. *Applied Surface Science*, **2018**, 457, 891-901	6.7	24
65	Dropwise condensation on superhydrophobic nanostructure surface, part II: Mathematical model. *International Journal of Heat and Mass Transfer*, **2018**, 127, 1170-1187	4.9	27
64	Plasmon heating of one-dimensional gold nanoparticle chains. *Solar Energy*, **2018**, 173, 665-674	6.8	12

63	Connected-top-bottom-cycle to cascade utilize flue gas heat for supercritical carbon dioxide coal fired power plant. *Energy Conversion and Management*, **2018**, 172, 138-154	10.6	86
62	How to Construct a Combined S-CO Cycle for Coal Fired Power Plant?. *Entropy*, **2018**, 21,	2.8	9
61	Microscale phase separation condensers with varied cross sections of each fluid phase: Heat transfer enhancement and pressure drop reduction. *International Journal of Heat and Mass Transfer* , **2018**, 118, 439-454	4.9	14
60	All-in-one photosynthetic assemblies for solar fuels. *Materials Today Energy*, **2018**, 10, 368-379	7	1
59	Blue energy harvesting on nanostructured carbon materials. *Journal of Materials Chemistry A*, **2018**, 6, 18357-18377	13	43
58	Solar evaporation of a hanging plasmonic droplet. *Solar Energy*, **2018**, 170, 184-191	6.8	17
57	Key issues and solution strategies for supercritical carbon dioxide coal fired power plant. *Energy*, **2018**, 157, 227-246	7.9	113
56	Effects of electric field intensity and frequency of AC electric field on the small-scale ethanol diffusion flame behaviors. *Applied Thermal Engineering*, **2017**, 115, 1330-1336	5.8	14
55	PLS-based multi-loop robust H2 control for improvement of operating efficiency of waste heat energy conversion systems with organic Rankine cycle. *Energy*, **2017**, 123, 460-472	7.9	13
54	Experimental study of heat transfer and start-up of loop heat pipe with multiscale porous wicks. *Applied Thermal Engineering*, **2017**, 117, 782-798	5.8	44
53	Technical and economical optimization for a typical solar hybrid coal-fired power plant in China. *Applied Thermal Engineering*, **2017**, 115, 549-557	5.8	34
52	Plasmon-dominated photoelectrodes for solar water splitting. *Journal of Materials Chemistry A*, **2017**, 5, 4233-4253	13	49
51	Condensation heat transfer of R245fa in a shell-tube heat exchanger at slightly inclined angles. *International Journal of Thermal Sciences*, **2017**, 115, 197-209	4.1	10
50	Effects of oxidation processes and microstructures on the hydrophilicity of copper surface. *Materials Letters*, **2017**, 195, 71-75	3.3	5
49	Large scale generation of micro-droplet array by vapor condensation on mesh screen piece. *Scientific Reports*, **2017**, 7, 39932	4.9	8
48	Integrated flat heat pipe with a porous network wick for high-heat-flux electronic devices. *Experimental Thermal and Fluid Science*, **2017**, 85, 119-131	3	34
47	Phase separation and flow pattern modulation with a T-type micro-drainage system. *Applied Thermal Engineering*, **2017**, 122, 214-226	5.8	3
46	Experimental and modeling investigation of an organic Rankine cycle system based on the scroll expander. *Energy*, **2017**, 134, 35-49	7.9	20

45	Switchable heat transfer mechanisms of nucleation and convection by wettability match of evaporator and condenser for heat pipes: Nano-structured surface effect. *Nano Energy*, **2017**, 38, 313-325	17.1	50
44	Drop spreading and penetrating on micro/nano particle sintering porous with multiscale structure. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 516, 9-22	5.1	12
43	Solar water evaporation by black photothermal sheets. *Nano Energy*, **2017**, 41, 269-284	17.1	283
42	Coupling Diffusion Welding Technique and Mesh Screen Creates Heterogeneous Metal Surface for Droplets Array. *Advanced Materials Interfaces*, **2017**, 4, 1700684	4.6	15
41	Volumetric solar heating and steam generation via gold nanofluids. *Applied Energy*, **2017**, 206, 393-400	10.7	97
40	An actual thermal efficiency expression for heat engines: Effect of heat transfer roadmaps. *International Journal of Heat and Mass Transfer*, **2017**, 113, 556-568	4.9	10
39	Water drop impacts on a single-layer of mesh screen membrane: Effect of water hammer pressure and advancing contact angles. *Experimental Thermal and Fluid Science*, **2017**, 82, 83-93	3	24
38	Gain scheduling control of waste heat energy conversion systems based on an LPV (linear parameter varying) model. *Energy*, **2016**, 107, 773-783	7.9	11
37	Investigation on a micro-pin-fin based membrane separator. *International Journal of Heat and Mass Transfer*, **2016**, 95, 426-439	4.9	1
36	Effects of direct-current electric fields on flame shape and combustion characteristics of ethanol in small scale. *Advances in Mechanical Engineering*, **2016**, 8, 168781401562484	1.2	10
35	Porous-wall microchannels generate high frequency Eye-blinking Interface oscillation, yielding ultra-stable wall temperatures. *International Journal of Heat and Mass Transfer*, **2016**, 101, 341-353	4.9	32
34	Performance analysis of a parabolic trough solar collector using Al2O3/synthetic oil nanofluid. *Applied Thermal Engineering*, **2016**, 107, 469-478	5.8	121
33	The definition of non-dimensional integration temperature difference and its effect on organic Rankine cycle. *Applied Energy*, **2016**, 167, 17-33	10.7	15
32	Filter-Based Fault Diagnosis of Wind Energy Conversion Systems Subject to Sensor Faults. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2016**, 138,	1.6	3
31	Numerical investigation of coalescence-induced droplet jumping on superhydrophobic surfaces for efficient dropwise condensation heat transfer. *International Journal of Heat and Mass Transfer*, **2016**, 95, 506-516	4.9	56
30	The decoupling and synergy strategy to construct multiscales from nano to millimeter for heat pipe. *International Journal of Heat and Mass Transfer*, **2016**, 93, 918-933	4.9	10
29	Design, Construction, and Characterization of an Adjustable 70 kW High-Flux Solar Simulator. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2016**, 138,	2.3	21
28	Heat transfer and pressure drop characteristics in a circular tube with mesh cylinder inserts. *International Communications in Heat and Mass Transfer*, **2016**, 75, 130-136	5.8	14

27	Froude number dominates condensation heat transfer of R245fa in tubes: Effect of inclination angles. *International Journal of Multiphase Flow*, **2015**, 71, 98-115	3.6	37
26	The electro-spraying characteristics of ethanol for application in a small-scale combustor under combined electric field. *Applied Thermal Engineering*, **2015**, 87, 595-604	5.8	37
25	Performance assessment of cascade control loops with non-Gaussian disturbances using entropy information. *Chemical Engineering Research and Design*, **2015**, 104, 68-80	5.5	13
24	Multiloop robust H□control design based on the dynamic PLS approach to chemical processes. *Chemical Engineering Research and Design*, **2015**, 100, 518-529	5.5	4
23	Operation of an organic Rankine cycle dependent on pumping flow rates and expander torques. *Energy*, **2015**, 90, 864-878	7.9	38
22	Modulated heat transfer tube with short conical-mesh inserts: A linking from microflow to macroflow. *International Journal of Heat and Mass Transfer*, **2015**, 89, 291-307	4.9	16
21	Chance-constrained two-stage fractional optimization for planning regional energy systems in British Columbia, Canada. *Applied Energy*, **2015**, 154, 663-677	10.7	34
20	Transcritical pressure Organic Rankine Cycle (ORC) analysis based on the integrated-average temperature difference in evaporators. *Applied Thermal Engineering*, **2015**, 88, 2-13	5.8	26
19	Effect of gravity levels on the flow pattern modulation by the phase separation concept. *Computers and Fluids*, **2015**, 108, 43-56	2.8	6
18	Operation and performance of a low temperature organic Rankine cycle. *Applied Thermal Engineering*, **2015**, 75, 1065-1075	5.8	64
17	Numerical study on drag reduction and heat transfer enhancement in microchannels with superhydrophobic surfaces for electronic cooling. *Applied Thermal Engineering*, **2015**, 88, 71-81	5.8	36
16	Turbulent convective heat transfer of CO2 in a helical tube at near-critical pressure. *International Journal of Heat and Mass Transfer*, **2015**, 80, 748-758	4.9	60
15	The phase separation in a rectangular microchannel by micro-membrane. *Applied Thermal Engineering*, **2015**, 88, 172-184	5.8	4
14	Condensation heat transfer of R245fa in tubes with and without lyophilic porous-membrane-tube insert. *International Journal of Heat and Mass Transfer*, **2015**, 88, 261-275	4.9	21
13	Organic Rankine cycle saves energy and reduces gas emissions for cement production. *Energy*, **2015**, 86, 59-73	7.9	51
12	Minimum $({h,phi })-$ Entropy Control for Non-Gaussian Stochastic Networked Control Systems and Its Application to a Networked DC Motor Control System. *IEEE Transactions on Control Systems Technology*, **2015**, 23, 406-411	4.8	30
11	Wavelet decomposition method decoupled boiling/evaporation oscillation mechanisms over two to three timescales: A study for a microchannel with pin fin structure. *International Journal of Multiphase Flow*, **2015**, 72, 53-72	3.6	13
10	Mixed convective heat transfer of CO2 at supercritical pressures flowing upward through a vertical helically coiled tube. *Applied Thermal Engineering*, **2015**, 88, 61-70	5.8	39

9	An experimental study of two-phase pressure drop of acetone in triangular silicon micro-channels. *Applied Thermal Engineering*, **2015**, 80, 76-86	5.8	18
8	Self-heating dependent characteristic of GaN-based light-emitting diodes with and without AlGaInN electron blocking layer. *Science Bulletin*, **2014**, 59, 2460-2469		4
7	The phase separation concept condensation heat transfer in horizontal tubes for low-grade energy utilization. *Energy*, **2014**, 69, 787-800	7.9	22
6	Development and dynamic characteristics of an Organic Rankine Cycle. *Science Bulletin*, **2014**, 59, 4367-4378		11
5	The effect of multi-quantum barrier structure on light-emitting diodes performance by a non-isothermal model. *Science Bulletin*, **2012**, 57, 3937-3942		5
4	Vertically oriented TiO2 nanotube arrays with different anodization times for enhanced boiling heat transfer. *Science China Technological Sciences*, **2012**, 55, 2184-2190	3.5	12
3	The wavelength dependent photovoltaic effects caused by two different mechanisms in carbon nanotube film/CuO nanowire array heterodimensional contacts. *Applied Physics Letters*, **2012**, 100, 251113	3.4	12
2	Seed Bubble Guided Heat Transfer in a Single Microchannel. *Heat Transfer Engineering*, **2011**, 32, 1031-1036	1.7	7
1	RESEARCH AND DEVELOPMENT OF LOOP HEAT PIPE：A REVIEW. *Frontiers in Heat and Mass Transfer*,14,		2