

# Xiangdong Liu

## List of Publications by Year in descending order

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59  
papers

2,203  
citations

257357

24  
h-index

223716

46  
g-index

60  
all docs

60  
docs citations

60  
times ranked

1799  
citing authors

#	ARTICLE	IF	CITATIONS
1	Roles of aqueous additives in the mass transfer process of water molecules in water/oil/water double emulsion droplets. <i>Chemical Engineering Science</i> , 2022, 248, 117175.	1.9	4
2	Underwater Unidirectional Cellular Fluidics. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 9891-9898.	4.0	14
3	Experimental Study on Sessile Droplet Freezing on a Cold Surface in Low Atmospheric Pressure. <i>Microgravity Science and Technology</i> , 2022, 34, 1.	0.7	2
4	3D-Printed Bionic Solar Evaporator. <i>Solar Rrl</i> , 2022, 6, .	3.1	28
5	Hierarchically Anisotropic Networks to Decouple Mechanical and Ionic Properties for High-Performance Quasi-Solid Thermocells. <i>ACS Nano</i> , 2022, 16, 8347-8357.	7.3	29
6	Three-Dimensional Open Water Microchannel Transpiration Mimetics. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 30435-30442.	4.0	13
7	Recent Growth of Wettability Gradient Surfaces: A Review. <i>Research</i> , 2022, 2022, .	2.8	13
8	Experimental study of droplet formation in the cross-junction. <i>Journal of Dispersion Science and Technology</i> , 2021, 42, 1233-1240.	1.3	7
9	Dynamic Liquid Gating Artificially Spinning System for Self-Evolving Topographies and Microstructures. <i>Langmuir</i> , 2021, 37, 1438-1445.	1.6	7
10	Enhancing discharging performance of a phase change thermal storage unit with a fractal space-filling matrix. <i>Journal of Renewable and Sustainable Energy</i> , 2021, 13, .	0.8	3
11	Reconfigurable and Renewable Nano-Micro-Structured Plastics for Radiative Cooling. <i>Advanced Functional Materials</i> , 2021, 31, 2100535.	7.8	58
12	Electric field mediated droplet spheroidizing in an extensional flow. <i>Physics of Fluids</i> , 2021, 33, .	1.6	9
13	Calculation Methods of Solution Chemical Potential and Application in Emulsion Microencapsulation. <i>Molecules</i> , 2021, 26, 2991.	1.7	3
14	Stretchable and Freeze-Tolerant Organohydrogel Thermocells with Enhanced Thermoelectric Performance Continually Working at Subzero Temperatures. <i>Advanced Functional Materials</i> , 2021, 31, 2104071.	7.8	53
15	An Improved Lattice Boltzmann Model for Convection Melting in the Existence of an Inhomogeneous Magnetic Field. <i>Microgravity Science and Technology</i> , 2021, 33, 1.	0.7	2
16	Bio-inspired slippery surfaces with multifunctional anti-icing performance. <i>Science China Technological Sciences</i> , 2021, 64, 2110-2118.	2.0	11
17	Stretchable and Freeze-Tolerant Organohydrogel Thermocells with Enhanced Thermoelectric Performance Continually Working at Subzero Temperatures ( <i>Adv. Funct. Mater.</i> 43/2021). <i>Advanced Functional Materials</i> , 2021, 31, 2170322.	7.8	2
18	Thermal performance of a novel dual-serpentine-channel flat-plate oscillating heat pipe used for multiple heat sources and sinks. <i>International Journal of Heat and Mass Transfer</i> , 2020, 161, 120293.	2.5	22

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19	Numerical Study on the Liquid-Liquid Interface Evolution during Droplet Coalescence. <i>Microgravity Science and Technology</i> , 2020, 32, 737-748.	0.7	8
20	Role of tree-shaped fins in charging performance of a latent heat storage unit. <i>International Journal of Energy Research</i> , 2020, 44, 4800-4811.	2.2	26
21	Three-dimensional pseudopotential lattice Boltzmann model for multiphase flows at high density ratio. <i>Physical Review E</i> , 2020, 102, 053308.	0.8	11
22	Interfacial mass transfer of water for fluorobenzene/aqueous solution system in double emulsion. <i>International Journal of Heat and Mass Transfer</i> , 2019, 145, 118690.	2.5	20
23	Microencapsulation of solid cores to prepare double emulsion droplets by microfluidics. <i>International Journal of Heat and Mass Transfer</i> , 2019, 135, 158-163.	2.5	43
24	NUMERICAL STUDY ON THE SOLIDIFICATION PERFORMANCE OF A LATENT HEAT STORAGE UNIT WITH KOCH-FRACTAL FIN. <i>Fractals</i> , 2019, 27, 1950108.	1.8	15
25	Gravity capillary evaporation regimes in microgrooves. <i>AIChE Journal</i> , 2019, 65, 1119-1125.	1.8	53
26	Shear-driven two colliding motions of binary double emulsion droplets. <i>International Journal of Heat and Mass Transfer</i> , 2018, 121, 377-389.	2.5	23
27	Visualization study on coalescence of droplets with different sizes in external liquid. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 1228-1235.	0.9	5
28	Microfluidic generation of self-contained multicomponent microcapsules for self-healing materials. <i>Applied Physics Letters</i> , 2018, 113, .	1.5	32
29	Programmable wettability on photocontrolled graphene film. <i>Science Advances</i> , 2018, 4, eaat7392.	4.7	245
30	Hydrodynamics of a droplet passing through a microfluidic T-junction. <i>Journal of Fluid Mechanics</i> , 2017, 819, 401-434.	1.4	174
31	Visualization Study of Oil-in-Water-in-Oil (O/W/O) Double Emulsion Formation in a Simple and Robust Co-Flowing Microfluidic Device. <i>Micromachines</i> , 2017, 8, 268.	1.4	7
32	Experimental Investigations and Numerical Simulation of Thermal Performance of a Horizontal Slinky-Coil Ground Heat Exchanger. <i>Sustainability</i> , 2017, 9, 1362.	1.6	6
33	Structure and Capacitance of Electrical Double Layers at the Graphene-Ionic Liquid Interface. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 939.	1.3	21
34	Heat Conduction in Porous Media Characterized by Fractal Geometry. <i>Energies</i> , 2017, 10, 1230.	1.6	23
35	Electroosmotic Flow in a Rough Nanochannel with Surface Roughness Characterized by Fractal Cantor. <i>Micromachines</i> , 2017, 8, 190.	1.4	23
36	High-Speed Visual Analysis of Fluid Flow and Heat Transfer in Oscillating Heat Pipes with Different Diameters. <i>Applied Sciences (Switzerland)</i> , 2016, 6, 321.	1.3	23

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37	Investigation of spherical and concentric mechanism of compound droplets. <i>Matter and Radiation at Extremes</i> , 2016, 1, 213-223.	1.5	27
38	Gas flow through rough microchannels in the transition flow regime. <i>Physical Review E</i> , 2016, 93, 013128.	0.8	29
39	Osmotic pressure-triggered cavitation in microcapsules. <i>Lab on A Chip</i> , 2016, 16, 251-255.	3.1	29
40	Three-dimensional splitting microfluidics. <i>Lab on A Chip</i> , 2016, 16, 1332-1339.	3.1	104
41	Spreading dynamics of droplet on an inclined surface. <i>Theoretical and Computational Fluid Dynamics</i> , 2016, 30, 237-252.	0.9	15
42	Enhancing and suppressing effects of an inner droplet on deformation of a double emulsion droplet under shear. <i>Lab on A Chip</i> , 2015, 15, 1255-1261.	3.1	58
43	Thermal slip for liquids at rough solid surfaces. <i>Physical Review E</i> , 2014, 89, 062407.	0.8	22
44	Hydrodynamic interaction of two deformable drops in confined shear flow. <i>Physical Review E</i> , 2014, 90, 033010.	0.8	19
45	Visualization study of flow condensation in hydrophobic microchannels. <i>AIChE Journal</i> , 2014, 60, 1182-1192.	1.8	30
46	Bioinspired Multicompartmental Microfibers from Microfluidics. <i>Advanced Materials</i> , 2014, 26, 5184-5190.	11.1	218
47	Dynamic performance analysis on start-up of closed-loop pulsating heat pipes (CLPHPs). <i>International Journal of Thermal Sciences</i> , 2013, 65, 224-233.	2.6	154
48	Emulsion droplet formation in coflowing liquid streams. <i>Physical Review E</i> , 2013, 87, 013002.	0.8	41
49	Hydrodynamics of double emulsion droplet in shear flow. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	115
50	Slip boundary for fluid flow at rough solid surfaces. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	31
51	Thermal and hydrodynamic characteristics of constructal tree-shaped minichannel heat sink. <i>AIChE Journal</i> , 2010, 56, 2018-2029.	1.8	67
52	Optimal surface fractal dimension for heat and fluid flow in microchannels. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	24
53	One dimensional numerical simulation for steady annular condensation flow in rectangular microchannels. <i>Heat and Mass Transfer</i> , 2009, 46, 75-82.	1.2	10
54	Three-Dimensional Numerical Simulation for Annular Condensation in Rectangular Microchannels. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2009, 13, 13-29.	1.4	46

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55	Condensation in Microchannels. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2008, 12, 117-143.	1.4	53
56	Determination of effective thermal conductivity for polyurethane foam by use of fractal method. <i>Science in China Series D: Earth Sciences</i> , 2006, 49, 468-475.	0.9	18
57	Solids Circulation Flux and Gas Bypassing in a Pressurized Spoutâ€fluid Bed with a Draft Tube. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 800-808.	0.9	34
58	Determination of effective thermal conductivity for real porous media using fractal theory. <i>Journal of Thermal Science</i> , 1999, 8, 102-107.	0.9	18
59	Lattice Boltzmann investigation of flow boiling in a microchannel. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 0, , 095440622210891.	1.1	2