

Lenan Zhang

List of Publications by Year in descending order

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48
papers

2,108
citations

331538

21
h-index

233338

45
g-index

48
all docs

48
docs citations

48
times ranked

1747
citing authors

#	ARTICLE	IF	CITATIONS
1	Boiling crisis due to bubble interactions. International Journal of Heat and Mass Transfer, 2022, 182, 121904.	2.5	22
2	Unified descriptor for enhanced critical heat flux during pool boiling of hemi-wicking surfaces. International Journal of Heat and Mass Transfer, 2022, 183, 122189.	2.5	16
3	Kinetics of Sorption in Hygroscopic Hydrogels. Nano Letters, 2022, 22, 1100-1107.	4.5	65
4	Alteration of pool boiling heat transfer on metallic surfaces by in situ oxidation. International Journal of Heat and Mass Transfer, 2022, 185, 122320.	2.5	10
5	Highly efficient and salt rejecting solar evaporation via a wick-free confined water layer. Nature Communications, 2022, 13, 849.	5.8	101
6	Wetting States and Departure Diameters of Bubbles on Micro-/Nanostructured Surfaces. Langmuir, 2022, 38, 3180-3188.	1.6	12
7	High-performance, flexible thermoelectric generator based on bulk materials. Cell Reports Physical Science, 2022, 3, 100780.	2.8	24
8	How Coalescing Bubbles Depart from a Wall. Langmuir, 2022, 38, 4371-4377.	1.6	13
9	Design and modeling of a multiscale porous ceramic heat exchanger for high temperature applications with ultrahigh power density. International Journal of Heat and Mass Transfer, 2022, 194, 122996.	2.5	4
10	Mesoscopic approach for nanoscale liquid-vapor interfacial statics and dynamics. International Journal of Heat and Mass Transfer, 2022, 194, 123104.	2.5	6
11	Heat and mass transfer in hygroscopic hydrogels. International Journal of Heat and Mass Transfer, 2022, 195, 123103.	2.5	14
12	Dual-Stage Atmospheric Water Harvesting Device for Scalable Solar-Driven Water Production. Joule, 2021, 5, 166-182.	11.7	173
13	A unified relationship between bubble departure frequency and diameter during saturated nucleate pool boiling. International Journal of Heat and Mass Transfer, 2021, 165, 120640.	2.5	16
14	Bubble growth and departure modes on wettable/non-wettable porous foams in alkaline water splitting. Joule, 2021, 5, 887-900.	11.7	123
15	An improved Capillary Breakup Extensional Rheometer to characterize weakly rate-thickening fluids: Applications in synthetic automotive oils. Journal of Non-Newtonian Fluid Mechanics, 2021, 291, 104496.	1.0	11
16	Toward Optimal Heat Transfer of 2D \times 3D Heterostructures via van der Waals Binding Effects. ACS Applied Materials & Interfaces, 2021, 13, 46055-46064.	4.0	15
17	Passive, high-efficiency thermally-localized solar desalination. Energy and Environmental Science, 2021, 14, 1771-1793.	15.6	142
18	Stefan flow induced natural convection suppression on high-flux evaporators. International Communications in Heat and Mass Transfer, 2020, 110, 104255.	2.9	7

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19	Capillary-fed, thin film evaporation devices. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	51
20	Investigation of flow boiling heat transfer and boiling crisis on a rough surface using infrared thermometry. <i>International Journal of Heat and Mass Transfer</i> , 2020, 160, 120134.	2.5	25
21	A Passive High-Temperature High-Pressure Solar Steam Generator for Medical Sterilization. <i>Joule</i> , 2020, 4, 2733-2745.	11.7	76
22	Transport-Based Modeling of Bubble Nucleation on Gas Evolving Electrodes. <i>Langmuir</i> , 2020, 36, 15112-15118.	1.6	15
23	Understanding triggering mechanisms for critical heat flux in pool boiling based on direct numerical simulations. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120546.	2.5	20
24	Framework for analyzing the thermorefectance spectra of metal thermal transducers with spectrally tunable time-domain thermorefectance. <i>Journal of Applied Physics</i> , 2020, 128, 055107.	1.1	7
25	Quasi-Newtonian Environmental Scanning Electron Microscopy (QN-ESEM) for Monitoring Material Dynamics in High-Pressure Gaseous Environments. <i>Advanced Science</i> , 2020, 7, 2001268.	5.6	2
26	Nucleation Site Distribution Probed by Phase-Enhanced Environmental Scanning Electron Microscopy. <i>Cell Reports Physical Science</i> , 2020, 1, 100262.	2.8	13
27	Wide-Field Magnetic Field and Temperature Imaging Using Nanoscale Quantum Sensors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26525-26533.	4.0	41
28	Effects of airborne hydrocarbon adsorption on pool boiling heat transfer. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	18
29	Ultrahigh-efficiency desalination <i>via</i> a thermally-localized multistage solar still. <i>Energy and Environmental Science</i> , 2020, 13, 830-839.	15.6	317
30	Modeling and performance analysis of high-efficiency thermally-localized multistage solar stills. <i>Applied Energy</i> , 2020, 266, 114864.	5.1	52
31	Criteria for antibubble formation from drop pairs impinging on a free surface. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	9
32	Theoretical and experimental investigation of haze in transparent aerogels. <i>Optics Express</i> , 2019, 27, A39.	1.7	27
33	High-performance subambient radiative cooling enabled by optically selective and thermally insulating polyethylene aerogel. <i>Science Advances</i> , 2019, 5, eaat9480.	4.7	281
34	Plasmonic absorption-induced haze suppression in random scattering media. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	2
35	Thermal Expansion Coefficient of Monolayer Molybdenum Disulfide Using Micro-Raman Spectroscopy. <i>Nano Letters</i> , 2019, 19, 4745-4751.	4.5	54
36	Size distribution theory for jumping-droplet condensation. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	27

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37	Enhanced Environmental Scanning Electron Microscopy Using Phase Reconstruction and Its Application in Condensation. ACS Nano, 2019, 13, 1953-1960.	7.3	11
38	Regularized pseudo-phase imaging for inspecting and sensing nanoscale features. Optics Express, 2019, 27, 6719.	1.7	16
39	Effects of millimetric geometric features on dropwise condensation under different vapor conditions. International Journal of Heat and Mass Transfer, 2018, 119, 931-938.	2.5	55
40	An improved fix-length compensation method for electrical discharge milling using tubular tools. International Journal of Machine Tools and Manufacture, 2018, 124, 22-32.	6.2	28
41	Machining Strategy and Key Problems for 3D Structure of Micro-EDM by Fix-length Compensation Method with Tubular Electrodes. Procedia CIRP, 2018, 68, 802-807.	1.0	3
42	Characterization of thin film evaporation in micropillar wicks using micro-Raman spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	12
43	Multiscale Dynamic Growth and Energy Transport of Droplets during Condensation. Langmuir, 2018, 34, 9085-9095.	1.6	29
44	A model of tool wear in electrical discharge machining process based on electromagnetic theory. International Journal of Machine Tools and Manufacture, 2017, 117, 31-41.	6.2	20
45	Simultaneous measurement of temperature, stress, and electric field in GaN HEMTs with micro-Raman spectroscopy. Review of Scientific Instruments, 2017, 88, 113111.	0.6	51
46	Lattice Boltzmann method simulations of Stokes number effects on particle motion in a channel flow. Physics of Fluids, 2016, 28, .	1.6	17
47	Research on the Equivalent Plane Machining with Fix-length Compensation Method in Micro-EDM. Procedia CIRP, 2016, 42, 644-649.	1.0	7
48	Geometric prediction of conic tool in micro-EDM milling with fix-length compensation using simulation. International Journal of Machine Tools and Manufacture, 2015, 89, 86-94.	6.2	48