Lenan Zhang

List of Publications by Year
in descending order

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		331538	233338
48	2,108	21	45
papers	citations	h-index	g-index

48	48	48	1747
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrahigh-efficiency desalination via a thermally-localized multistage solar still. Energy and Environmental Science, 2020, 13, 830-839.	15.6	317
2	High-performance subambient radiative cooling enabled by optically selective and thermally insulating polyethylene aerogel. Science Advances, 2019, 5, eaat9480.	4.7	281
3	Dual-Stage Atmospheric Water Harvesting Device for Scalable Solar-Driven Water Production. Joule, 2021, 5, 166-182.	11.7	173
4	Passive, high-efficiency thermally-localized solar desalination. Energy and Environmental Science, 2021, 14, 1771-1793.	15.6	142
5	Bubble growth and departure modes on wettable/non-wettable porous foams in alkaline water splitting. Joule, 2021, 5, 887-900.	11.7	123
6	Highly efficient and salt rejecting solar evaporation via a wick-free confined water layer. Nature Communications, 2022, 13, 849.	5.8	101
7	A Passive High-Temperature High-Pressure Solar Steam Generator for Medical Sterilization. Joule, 2020, 4, 2733-2745.	11.7	76
8	Kinetics of Sorption in Hygroscopic Hydrogels. Nano Letters, 2022, 22, 1100-1107.	4.5	65
9	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
10	Thermal Expansion Coefficient of Monolayer Molybdenum Disulfide Using Micro-Raman Spectroscopy. Nano Letters, 2019, 19, 4745-4751.	4.5	54
11	Modeling and performance analysis of high-efficiency thermally-localized multistage solar stills. Applied Energy, 2020, 266, 114864.	5.1	52
12	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
13	Capillary-fed, thin film evaporation devices. Journal of Applied Physics, 2020, 128, .	1.1	51
14	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
15	Wide-Field Magnetic Field and Temperature Imaging Using Nanoscale Quantum Sensors. ACS Applied Materials & Interfaces, 2020, 12, 26525-26533.	4.0	41
16	Multiscale Dynamic Growth and Energy Transport of Droplets during Condensation. Langmuir, 2018, 34, 9085-9095.	1.6	29
17	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
18	Theoretical and experimental investigation of haze in transparent aerogels. Optics Express, 2019, 27, A39.	1.7	27

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19	Size distribution theory for jumping-droplet condensation. Applied Physics Letters, 2019, 114, .	1.5	27
20	Investigation of flow boiling heat transfer and boiling crisis on a rough surface using infrared thermometry. International Journal of Heat and Mass Transfer, 2020, 160, 120134.	2.5	25
21	High-performance, flexible thermoelectric generator based on bulk materials. Cell Reports Physical Science, 2022, 3, 100780.	2.8	24
22	Boiling crisis due to bubble interactions. International Journal of Heat and Mass Transfer, 2022, 182, 121904.	2.5	22
23	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
24	Understanding triggering mechanisms for critical heat flux in pool boiling based on direct numerical simulations. International Journal of Heat and Mass Transfer, 2020, 163, 120546.	2.5	20
25	Effects of airborne hydrocarbon adsorption on pool boiling heat transfer. Applied Physics Letters, 2020, 116, .	1.5	18
26	Lattice Boltzmann method simulations of Stokes number effects on particle motion in a channel flow. Physics of Fluids, 2016, 28, .	1.6	17
27	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
28	Regularized pseudo-phase imaging for inspecting and sensing nanoscale features. Optics Express, 2019, 27, 6719.	1.7	16
29	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
30	Transport-Based Modeling of Bubble Nucleation on Gas Evolving Electrodes. Langmuir, 2020, 36, 15112-15118.	1.6	15
31	Toward Optimal Heat Transfer of 2Dâ€“3D Heterostructures via van der Waals Binding Effects. ACS Applied Materials & Interfaces, 2021, 13, 46055-46064.	4.0	15
32	Heat and mass transfer in hygroscopic hydrogels. International Journal of Heat and Mass Transfer, 2022, 195, 123103.	2.5	14
33	Nucleation Site Distribution Probed by Phase-Enhanced Environmental Scanning Electron Microscopy. Cell Reports Physical Science, 2020, 1, 100262.	2.8	13
34	How Coalescing Bubbles Depart from a Wall. Langmuir, 2022, 38, 4371-4377.	1.6	13
35	Characterization of thin film evaporation in micropillar wicks using micro-Raman spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	12
36	Wetting States and Departure Diameters of Bubbles on Micro-/Nanostructured Surfaces. Langmuir, 2022, 38, 3180-3188.	1.6	12

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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	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
39	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
40	Criteria for antibubble formation from drop pairs impinging on a free surface. Physical Review Fluids, 2020, 5, .	1.0	9
41	Research on the Equivalent Plane Machining with Fix-length Compensation Method in Micro-EDM. Procedia CIRP, 2016, 42, 644-649.	1.0	7
42	Stefan flow induced natural convection suppression on high-flux evaporators. International Communications in Heat and Mass Transfer, 2020, 110, 104255.	2.9	7
43	Framework for analyzing the thermoreflectance spectra of metal thermal transducers with spectrally tunable time-domain thermoreflectance. Journal of Applied Physics, 2020, 128, 055107.	1.1	7
44	Mesoscopic approach for nanoscale liquid-vapor interfacial statics and dynamics. International Journal of Heat and Mass Transfer, 2022, 194, 123104.	2.5	6
45	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
46	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
47	Plasmonic absorption-induced haze suppression in random scattering media. Applied Physics Letters, 2019, 114, .	1.5	2
48	Quasiâ€Newtonian Environmental Scanning Electron Microscopy (QNâ€ESEM) for Monitoring Material Dynamics in Highâ€Pressure Gaseous Environments. Advanced Science, 2020, 7, 2001268.	5.6	2