Zhengmao Lu

List of Publications by Year
in descending order

40 papers	1,770 citations	236833 25 h-index	289141 40 g-index
40 all docs	40 docs citations	40 times ranked	1911 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	Turning traditionally nonwetting surfaces wetting for even ultra-high surface energy liquids. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	10
3	Kinetics of Sorption in Hygroscopic Hydrogels. Nano Letters, 2022, 22, 1100-1107.	4.5	65
4	How Coalescing Bubbles Depart from a Wall. Langmuir, 2022, 38, 4371-4377.	1.6	13
5	Revisiting the Schrage Equation for Kinetically Limited Evaporation and Condensation. Journal of Heat Transfer, 2022, 144, .	1.2	12
6	Heat and mass transfer in hygroscopic hydrogels. International Journal of Heat and Mass Transfer, 2022, 195, 123103.	2.5	14
7	Conductive carbonaceous membranes: recent progress and future opportunities. Journal of Materials Chemistry A, 2021, 9, 3270-3289.	5.2	28
8	Numerical validation of the dusty-gas model for binary diffusion in low aspect ratio capillaries. Physics of Fluids, 2021, 33, .	1.6	4
9	Capillary-fed, thin film evaporation devices. Journal of Applied Physics, 2020, 128, .	1.1	51
10	Passive Sub-Ambient Cooling from a Transparent Evaporation-Insulation Bilayer. Joule, 2020, 4, 2693-2701.	11.7	44
11	Transport-Based Modeling of Bubble Nucleation on Gas Evolving Electrodes. Langmuir, 2020, 36, 15112-15118.	1.6	15
12	Nucleation Site Distribution Probed by Phase-Enhanced Environmental Scanning Electron Microscopy. Cell Reports Physical Science, 2020, 1, 100262.	2.8	13
13	High Heat Flux Evaporation of Low Surface Tension Liquids from Nanoporous Membranes. ACS Applied Materials & Interfaces, 2020, 12, 7232-7238.	4.0	36
14	Laser-engineered heavy hydrocarbons: Old materials with new opportunities. Science Advances, 2020, 6, eaaz5231.	4.7	40
15	Laser-sculptured ultrathin transition metal carbide layers for energy storage and energy harvesting applications. Nature Communications, 2019, 10, 3112.	5.8	91
16	A unified relationship for evaporation kinetics at low Mach numbers. Nature Communications, 2019, 10, 2368.	5.8	73
17	Thermal Expansion Coefficient of Monolayer Molybdenum Disulfide Using Micro-Raman Spectroscopy. Nano Letters, 2019, 19, 4745-4751.	4.5	54
18	Size distribution theory for jumping-droplet condensation. Applied Physics Letters, 2019, 114, .	1.5	27

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19	Simultaneous prediction of dryout heat flux and local temperature for thin film evaporation in micropillar wicks. International Journal of Heat and Mass Transfer, 2019, 136, 170-177.	2.5	25
20	Corrections to â€œDesign and Modeling of Membrane-Based Evaporative Cooling Devices for Thermal Management of High Heat Fluxesâ€•[Jul 16 1056-1065]. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1663-1663.	1.4	1
21	Enhanced Environmental Scanning Electron Microscopy Using Phase Reconstruction and Its Application in Condensation. ACS Nano, 2019, 13, 1953-1960.	7.3	11
22	Heat Transfer Enhancement During Water and Hydrocarbon Condensation on Lubricant Infused Surfaces. Scientific Reports, 2018, 8, 540.	1.6	111
23	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
24	Gravitationally Driven Wicking for Enhanced Condensation Heat Transfer. Langmuir, 2018, 34, 4658-4664.	1.6	42
25	Nanoporous membrane device for ultra high heat flux thermal management. Microsystems and Nanoengineering, 2018, 4, 1.	3.4	154
26	Toward Condensation-Resistant Omniphobic Surfaces. ACS Nano, 2018, 12, 11013-11021.	7.3	62
27	Characterization of thin film evaporation in micropillar wicks using micro-Raman spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	12
28	Parametric study of thin film evaporation from nanoporous membranes. Applied Physics Letters, 2017, 111, .	1.5	53
29	An Ultrathin Nanoporous Membrane Evaporator. Nano Letters, 2017, 17, 6217-6220.	4.5	60
30	Coexistence of Pinning and Moving on a Contact Line. Langmuir, 2017, 33, 8970-8975.	1.6	24
31	Design of Lubricant Infused Surfaces. ACS Applied Materials & Interfaces, 2017, 9, 42383-42392.	4.0	131
32	Design and Modeling of Membrane-Based Evaporative Cooling Devices for Thermal Management of High Heat Fluxes. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 1056-1065.	1.4	54
33	Thermal transport in suspended silicon membranes measured by laser-induced transient gratings. AIP Advances, 2016, 6, .	0.6	40
34	Prediction and Characterization of Dry-out Heat Flux in Micropillar Wick Structures. Langmuir, 2016, 32, 1920-1927.	1.6	62
35	The contributions of skin structural properties to the friction of human finger-pads. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2015, 229, 294-311.	1.0	19
36	Modeling of Evaporation from Nanopores with Nonequilibrium and Nonlocal Effects. Langmuir, 2015, 31, 9817-9824.	1.6	78

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37	Efficient Infrared Electroluminescent Devices Using Solution-Processed Colloidal Quantum Dots. Advanced Functional Materials, 2005, 15, 1865-1869.	7.8	112
38	Epitaxial LiNbO₃ thin films on sapphire substrates grown by solid source MOCVD. Journal of Materials Research, 1994, 9, 2258-2263.	1.2	35
39	Electro-Optic Materials by Solid Source MOCVD. Materials Research Society Symposia Proceedings, 1993, 335, 299.	0.1	13
40	Processing of Bi_{2.1}Sr_{1.8}Ca_{1.1}Cu₂O₈ source material for float-zone fiber growth. Journal of Materials Research, 1991, 6, 2280-2286.	1.2	4