Yangying Zhu

List of Publications by Year
in descending order

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36 papers	3,922 citations	304743 22 h-index	414414 32 g-index
38 all docs	38 docs citations	38 times ranked	5505 citing authors

#	Article	IF	Citations
1	Challenges and opportunities towards fast-charging battery materials. Nature Energy, 2019, 4, 540-550.	39.5	1,053
2	Nanoengineered materials for liquidâ€“vapour phase-change heat transfer. Nature Reviews Materials, 2017, 2, .	48.7	431
3	Nanoporous polyethylene microfibres for large-scale radiative cooling fabric. Nature Sustainability, 2018, 1, 105-112.	23.7	370
4	Efficient electrocatalytic CO2 reduction on a three-phase interface. Nature Catalysis, 2018, 1, 592-600.	34.4	336
5	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. Nano Letters, 2019, 19, 1326-1335.	9.1	193
6	Fast lithium growth and short circuit induced by localized-temperature hotspots in lithium batteries. Nature Communications, 2019, 10, 2067.	12.8	177
7	Breathing-Mimicking Electrocatalysis for Oxygen Evolution and Reduction. Joule, 2019, 3, 557-569.	24.0	132
8	Surface Structure Enhanced Microchannel Flow Boiling. Journal of Heat Transfer, 2016, 138, .	2.1	129
9	Unified Model for Contact Angle Hysteresis on Heterogeneous and Superhydrophobic Surfaces. Langmuir, 2012, 28, 15777-15788.	3.5	127
10	Realâ€Time Manipulation with Magnetically Tunable Structures. Advanced Materials, 2014, 26, 6442-6446.	21.0	120
11	Dynamic spatial progression of isolated lithium during battery operations. Nature, 2021, 600, 659-663.	27.8	111
12	Underpotential lithium plating on graphite anodes caused by temperature heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29453-29461.	7.1	94
13	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. Nature Communications, 2021, 12, 6122.	12.8	86
14	An Interconnected Channelâ€Like Framework as Host for Lithium Metal Composite Anodes. Advanced Energy Materials, 2019, 9, 1802720.	19.5	83
15	COVID-19: Effects of Environmental Conditions on the Propagation of Respiratory Droplets. Nano Letters, 2020, 20, 7744-7750.	9.1	76
16	In Situ Investigation on the Nanoscale Capture and Evolution of Aerosols on Nanofibers. Nano Letters, 2018, 18, 1130-1138.	9.1	65
17	Prediction and Characterization of Dry-out Heat Flux in Micropillar Wick Structures. Langmuir, 2016, 32, 1920-1927.	3.5	62
18	Correlating Li-Ion Solvation Structures and Electrode Potential Temperature Coefficients. Journal of the American Chemical Society, 2021, 143, 2264-2271.	13.7	44

#	Article	IF	Citations
19	Dynamic Evolution of the Evaporating Liquidâ€“Vapor Interface in Micropillar Arrays. Langmuir, 2016, 32, 519-526.	3.5	29
20	Suppressing high-frequency temperature oscillations in microchannels with surface structures. Applied Physics Letters, 2017, 110, .	3.3	28
21	A Particle Resuspension Model in Ventilation Ducts. Aerosol Science and Technology, 2012, 46, 222-235.	3.1	24
22	Coexistence of Pinning and Moving on a Contact Line. Langmuir, 2017, 33, 8970-8975.	3.5	24
23	Electrotunable liquid sulfurÂmicrodroplets. Nature Communications, 2020, 11, 606.	12.8	22
24	Thermal design optimization of evaporator micropillar wicks. International Journal of Thermal Sciences, 2018, 134, 179-187.	4.9	19
25	Electrowetting-on-dielectric actuation of a vertical translation and angular manipulation stage. Applied Physics Letters, 2016, 109, .	3.3	18
26	Designing a Nanoscale Three-phase Electrochemical Pathway to Promote Pt-catalyzed Formaldehyde Oxidation. Nano Letters, 2020, 20, 8719-8724.	9.1	15
27	Heat transfer suppression by suspended droplets on microstructured surfaces. Applied Physics Letters, 2020, 116, .	3.3	15
28	Characterization of thin film evaporation in micropillar wicks using micro-Raman spectroscopy. Applied Physics Letters, 2018, 113, .	3.3	12
29	Depinning of Multiphase Fluid Using Light and Photo-Responsive Surfactants. ACS Central Science, 2022, 8, 235-245.	11.3	9
30	UVB Radiation Alone May Not Explain Sunlight Inactivation of SARS-CoV-2. Journal of Infectious Diseases, 2021, 223, 1500-1502.	4.0	6
31	Suppressed Dry-out in Two-Phase Microchannels via Surface Structures. Journal of Heat Transfer, 2016, 138, .	2.1	3
32	Boiling on Enhanced Surfaces. , 2017, , 1-47.		2
33	Model optimization of dry-out heat flux from micropillar wick structures. , 2016, , .		1
34	Boiling on Enhanced Surfaces. , 2018, , 1747-1793.		1
35	Manipulating Water and Heat with Nanoengineered Surfaces. Women in Engineering and Science, 2020, , 85-99.	0.4	0
36	Battery chemical heterogeneity revealed by thermal conductivity measurement. Trends in Chemistry, 2021, 3, 797-799.	8.5	0