Pengyu Lv

List of Publications by Year
in descending order

46	1,691	304743 22	276875 41
papers	citations	h-index	g-index

46	46	46	1755
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metastable States and Wetting Transition of Submerged Superhydrophobic Structures. Physical Review Letters, 2014, 112, 196101.	7.8	189
2	Evaporation-triggered microdroplet nucleation and the four life phases of an evaporating Ouzo drop. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8642-8647.	7.1	138
3	Evaporating pure, binary and ternary droplets: thermal effects and axial symmetry breaking. Journal of Fluid Mechanics, 2017, 823, 470-497.	3.4	126
4	Importance of Hierarchical Structures in Wetting Stability on Submersed Superhydrophobic Surfaces. Langmuir, 2012, 28, 9440-9450.	3.5	106
5	Superrepellency of underwater hierarchical structures on Salvinia leaf. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2282-2287.	7.1	83
6	A Modular Microfluidic Device via Multimaterial 3D Printing for Emulsion Generation. Scientific Reports, 2018, 8, 4791.	3.3	81
7	Underwater Superhydrophobicity: Stability, Design and Regulation, and Applications. Applied Mechanics Reviews, 2016, 68, .	10.1	77
8	Ultimate Stable Underwater Superhydrophobic State. Physical Review Letters, 2017, 119, 134501.	7.8	73
9	Gravitational Effect in Evaporating Binary Microdroplets. Physical Review Letters, 2019, 122, 114501.	7.8	71
10	Evaporation-Triggered Segregation of Sessile Binary Droplets. Physical Review Letters, 2018, 120, 224501.	7.8	63
11	Multimaterial Microfluidic 3D Printing of Textured Composites with Liquid Inclusions. Advanced Science, 2019, 6, 1800730.	11.2	59
12	Symmetric and Asymmetric Meniscus Collapse in Wetting Transition on Submerged Structured Surfaces. Langmuir, 2015, 31, 1248-1254.	3.5	55
13	Influence of fluid flow on the stability and wetting transition of submerged superhydrophobic surfaces. Soft Matter, 2016, 12, 4241-4246.	2.7	53
14	Liquid plasticine: controlled deformation and recovery of droplets with interfacial nanoparticle jamming. Soft Matter, 2016, 12, 1655-1662.	2.7	52
15	Liquidâ€“liquid displacement in slippery liquid-infused membranes (SLIMs). Soft Matter, 2018, 14, 1780-1788.	2.7	37
16	Soft Actuators Based on Liquidâ€“Vapor Phase Change Composites. Soft Robotics, 2021, 8, 251-261.	8.0	34
17	Morphology evolution of liquidâ€“gas interface on submerged solid structured surfaces. Extreme Mechanics Letters, 2019, 27, 34-51.	4.1	33
18	Growth and Detachment of Oxygen Bubbles Induced by Gold-Catalyzed Decomposition of Hydrogen Peroxide. Journal of Physical Chemistry C, 2017, 121, 20769-20776.	3.1	31

#	Article	IF	Citations
19	Effect of Reynolds number on drag reduction in turbulent boundary layer flow over liquidâ€“gas interface. Physics of Fluids, 2020, 32, .	4.0	29
20	Morphology of gas cavities on patterned hydrophobic surfaces under reduced pressure. Physics of Fluids, 2015, 27, 092003.	4.0	28
21	Three-dimensional backflow at liquidâ€“gas interface induced by surfactant. Journal of Fluid Mechanics, 2020, 899, .	3.4	26
22	Stress fields in hollow coreâ€“shell spherical electrodes of lithium ion batteries. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140299.	2.1	24
23	Effects of nozzle and fluid properties on the drop formation dynamics in a drop-on-demand inkjet printing. Applied Mathematics and Mechanics (English Edition), 2019, 40, 1239-1254.	3.6	21
24	Self-Propelled Detachment upon Coalescence of Surface Bubbles. Physical Review Letters, 2021, 127, 235501.	7.8	21
25	Origami Spring-Inspired Shape Morphing for Flexible Robotics. Soft Robotics, 2022, 9, 798-806.	8.0	19
26	Receding dynamics of contact lines and size-dependent adhesion on microstructured hydrophobic surfaces. Soft Matter, 2016, 12, 4257-4265.	2.7	18
27	Encoding Smart Microjoints for Microcrawlers with Enhanced Locomotion. Advanced Intelligent Systems, 2020, 2, 1900128.	6.1	18
28	Effects of the actuation waveform on the drop size reduction in drop-on-demand inkjet printing. Acta Mechanica Sinica/Lixue Xuebao, 2020, 36, 983-989.	3.4	17
29	Morphological bubble evolution induced by air diffusion on submerged hydrophobic structures. Physics of Fluids, 2017, 29, .	4.0	15
30	Segregation in dissolving binary-component sessile droplets. Journal of Fluid Mechanics, 2017, 812, 349-369.	3.4	15
31	Viscous optical clearing agent forin vivooptical imaging. Journal of Biomedical Optics, 2014, 19, 076019.	2.6	13
32	Conical Kresling origami and its applications to curvature and energy programming. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	13
33	Enhanced Locomotion of Shape Morphing Microrobots by Surface Coating. Advanced Intelligent Systems, 2021, 3, 2000270.	6.1	11
34	Intelligent Shape-Morphing Micromachines. Research, 2021, 2021, 9806463.	5.7	6
35	Physically Entangled Antiswelling Hydrogels with High Stiffness. Macromolecular Rapid Communications, 2022, 43, .	3.9	6
36	Motion Enhancement of Spherical Surface Walkers with Microstructures. Advanced Intelligent Systems, 2021, 3, 2000226.	6.1	5

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37	Cavity dynamics of water drop impact onto immiscible oil pool with different viscosity. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 447-455.	3.4	5
38	Coupling effect of wall slip and spanwise oscillation on drag reduction in turbulent channel flow. Physical Review Fluids, 2020, 5, .	2.5	5
39	Multimaterial 3D Printing: Multimaterial Microfluidic 3D Printing of Textured Composites with Liquid Inclusions (Adv. Sci. 3/2019). Advanced Science, 2019, 6, 1970018.	11.2	4
40	Accurate PIV measurement on slip boundary using single-pixel algorithm. Measurement Science and Technology, 2022, 33, 055302.	2.6	4
41	Blowing-only opposition control: Characteristics of turbulent drag reduction and implementation by deep learning. AIP Advances, 2021, 11, .	1.3	3
42	Programmable Selfâ€Locking Micromachines with Tunable Couplings. Advanced Intelligent Systems, 2021, 3, 2000232.	6.1	2
43	Solidâ€“Liquid Composites with High Impact Resistance. Acta Mechanica Solida Sinica, 0, , 1.	1.9	2
44	3D Propulsions of Rodâ€Shaped Micropropellers. Advanced Intelligent Systems, 0, , 2100083.	6.1	0
45	10.1063/1.4977052.1. , 2017, , .		0
46	A micromechanical model for phase-change composites. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	0