Zuankai Wang

List of Publications by Year
in descending order

210 papers	18,127 citations	16411 64 h-index	14156 128 g-index
217 all docs	217 docs citations	217 times ranked	14918 citing authors

#	Article	IF	Citations
1	Design of robust superhydrophobic surfaces. Nature, 2020, 582, 55-59.	13.7	1,124
2	A droplet-based electricity generator with high instantaneous power density. Nature, 2020, 578, 392-396.	13.7	871
3	Pancake bouncing on superhydrophobic surfaces. Nature Physics, 2014, 10, 515-519.	6.5	748
4	High dislocation densityâ€“induced large ductility in deformed and partitioned steels. Science, 2017, 357, 1029-1032.	6.0	729
5	Nanograssed Micropyramidal Architectures for Continuous Dropwise Condensation. Advanced Functional Materials, 2011, 21, 4617-4623.	7.8	500
6	Recurrent Filmwise and Dropwise Condensation on a Beetle Mimetic Surface. ACS Nano, 2015, 9, 71-81.	7.3	436
7	From Industrially Weavable and Knittable Highly Conductive Yarns to Large Wearable Energy Storage Textiles. ACS Nano, 2015, 9, 4766-4775.	7.3	411
8	Nanostructured Copper Interfaces for Enhanced Boiling. Small, 2008, 4, 1084-1088.	5.2	404
9	Surface charge printing for programmed droplet transport. Nature Materials, 2019, 18, 936-941.	13.3	401
10	A bioinspired multilegged soft millirobot that functions in both dry and wet conditions. Nature Communications, 2018, 9, 3944.	5.8	385
11	Enhanced cell sorting and manipulation with combined optical tweezer and microfluidic chip technologies. Lab on A Chip, 2011, 11, 3656.	3.1	372
12	Bio-inspired reversible underwater adhesive. Nature Communications, 2017, 8, 2218.	5.8	353
13	Mussel-inspired hydrogels: from design principles to promising applications. Chemical Society Reviews, 2020, 49, 3605-3637.	18.7	346
14	Symmetry breaking in drop bouncing on curved surfaces. Nature Communications, 2015, 6, 10034.	5.8	340
15	Ultrathin metal/covalentâ€“organic framework membranes towards ultimate separation. Chemical Society Reviews, 2019, 48, 3811-3841.	18.7	334
16	PDMS/PVDF hybrid electrospun membrane with superhydrophobic property and drop impact dynamics for dyeing wastewater treatment using membrane distillation. Journal of Membrane Science, 2017, 525, 57-67.	4.1	310
17	Directional transport of high-temperature Janus droplets mediated by structural topography. Nature Physics, 2016, 12, 606-612.	6.5	263
18	Topological liquid diode. Science Advances, 2017, 3, eaao3530.	4.7	249

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19	Superhydrophobic-like tunable droplet bouncing on slippery liquid interfaces. Nature Communications, 2015, 6, 7986.	5.8	229
20	Three-dimensional capillary ratchet-induced liquid directional steering. Science, 2021, 373, 1344-1348.	6.0	223
21	Multimode Multidrop Serial Coalescence Effects during Condensation on Hierarchical Superhydrophobic Surfaces. Langmuir, 2013, 29, 881-891.	1.6	204
22	Bioinspired Interfacial Materials with Enhanced Drop Mobility: From Fundamentals to Multifunctional Applications. Small, 2016, 12, 1825-1839.	5.2	193
23	Dopamine-Triggered Hydrogels with High Transparency, Self-Adhesion, and Thermoresponse as Skinlike Sensors. ACS Nano, 2021, 15, 1785-1794.	7.3	190
24	Harnessing Solarâ€Driven Photothermal Effect toward the Waterâ€“Energy Nexus. Advanced Science, 2019, 6, 1900883.	5.6	188
25	Wetting of Mono and Few-Layered WS₂ and MoS₂ Films Supported on Si/SiO₂ Substrates. ACS Nano, 2015, 9, 3023-3031.	7.3	186
26	Polarity-Dependent Electrochemically Controlled Transport of Water through Carbon Nanotube Membranes. Nano Letters, 2007, 7, 697-702.	4.5	176
27	Evaporation of Droplets on Superhydrophobic Surfaces: Surface Roughness and Small Droplet Size Effects. Physical Review Letters, 2012, 109, 116101.	2.9	176
28	Activating the Microscale Edge Effect in a Hierarchical Surface for Frosting Suppression and Defrosting Promotion. Scientific Reports, 2013, 3, 2515.	1.6	166
29	How nanorough is rough enough to make a surface superhydrophobic during water condensation?. Soft Matter, 2012, 8, 8786.	1.2	165
30	Tip-induced flipping of droplets on Janus pillars: From local reconfiguration to global transport. Science Advances, 2020, 6, eabb4540.	4.7	164
31	A high-efficiency solar desalination evaporator composite of corn stalk, Mcnts and TiO₂: ultra-fast capillary water moisture transportation and porous bio-tissue multi-layer filtration. Journal of Materials Chemistry A, 2020, 8, 349-357.	5.2	151
32	Impact dynamics and rebound of water droplets on superhydrophobic carbon nanotube arrays. Applied Physics Letters, 2007, 91, .	1.5	140
33	Remote Control over Underwater Dynamic Attachment/Detachment and Locomotion. Advanced Materials, 2018, 30, e1801595.	11.1	137
34	Supramolecular silicone coating capable of strong substrate bonding, readily damage healing, and easy oil sliding. Science Advances, 2019, 5, eaaw5643.	4.7	132
35	Achieving ultrahigh instantaneous power density of 10â€‰MW/m2 by leveraging the opposite-charge-enhanced transistor-like triboelectric nanogenerator (OCT-TENG). Nature Communications, 2021, 12, 5470.	5.8	126
36	Interfacial Laserâ€Induced Graphene Enabling Highâ€Performance Liquidâ€“Solid Triboelectric Nanogenerator. Advanced Materials, 2021, 33, e2104290.	11.1	120

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37	Inhibiting the Leidenfrost effect above 1,000â€‰Â°C for sustained thermal cooling. Nature, 2022, 601, 568-572.	13.7	120
38	Hierarchical hollow MoS2 microspheres as materials for conductometric NO2 gas sensors. Sensors and Actuators B: Chemical, 2019, 282, 259-267.	4.0	119
39	Electrowetting on liquid-infused film (EWOLF): Complete reversibility and controlled droplet oscillation suppression for fast optical imaging. Scientific Reports, 2014, 4, 6846.	1.6	116
40	Long-range spontaneous droplet self-propulsion on wettability gradient surfaces. Scientific Reports, 2017, 7, 7552.	1.6	113
41	Biological and Engineered Topological Droplet Rectifiers. Advanced Materials, 2019, 31, e1806501.	11.1	113
42	SLIPS-TENG: robust triboelectric nanogenerator with optical and charge transparency using a slippery interface. National Science Review, 2019, 6, 540-550.	4.6	110
43	Mimosa Origami: A nanostructure-enabled directional self-organization regime of materials. Science Advances, 2016, 2, e1600417.	4.7	108
44	Hierarchically Hollow Microfibers as a Scalable and Effective Thermal Insulating Cooler for Buildings. ACS Nano, 2021, 15, 10076-10083.	7.3	107
45	Toward large-scale fabrication of triboelectric nanogenerator (TENG) with silk-fibroin patches film via spray-coating process. Nano Energy, 2017, 41, 359-366.	8.2	105
46	Omnidirectional Self-Assembly of Transparent Superoleophobic Nanotextures. ACS Nano, 2017, 11, 587-596.	7.3	104
47	Nanogenerators with Superwetting Surfaces for Harvesting Water/Liquid Energy. Advanced Functional Materials, 2020, 30, 1908252.	7.8	103
48	Multiâ€Mode Waterâ€Tubeâ€Based Triboelectric Nanogenerator Designed for Lowâ€Frequency Energy Harvesting with Ultrahigh Volumetric Charge Density. Advanced Energy Materials, 2021, 11, 2100038.	10.2	94
49	Controlling drop bouncing using surfaces with gradient features. Applied Physics Letters, 2015, 107, .	1.5	93
50	Superhydrophobic Surface with Hierarchical Architecture and Bimetallic Composition for Enhanced Antibacterial Activity. ACS Applied Materials & Interfaces, 2014, 6, 22108-22115.	4.0	89
51	A universal single electrode droplet-based electricity generator (SE-DEG) for water kinetic energy harvesting. Nano Energy, 2021, 82, 105735.	8.2	89
52	Highly Solar-Reflective Structures for Daytime Radiative Cooling under High Humidity. ACS Applied Materials & Interfaces, 2020, 12, 51409-51417.	4.0	88
53	Combined micro-/nanoscale surface roughness for enhanced hydrophobic stability in carbon nanotube arrays. Applied Physics Letters, 2007, 90, 143117.	1.5	87
54	Suppressing Ice Nucleation of Supercooled Condensate with Biphilic Topography. Physical Review Letters, 2018, 120, 075902.	2.9	84

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55	Desuccinylation-Triggered Peptide Self-Assembly: Live Cell Imaging of SIRT5 Activity and Mitochondrial Activity Modulation. Journal of the American Chemical Society, 2020, 142, 18150-18159.	6.6	84
56	A self-powered and high sensitivity acceleration sensor with V-Q-a model based on triboelectric nanogenerators (TENGs). Nano Energy, 2020, 67, 104228.	8.2	83
57	Interfacial Engineering of Bimetallic Ag/Pt Nanoparticles on Reduced Graphene Oxide Matrix for Enhanced Antimicrobial Activity. ACS Applied Materials & Interfaces, 2016, 8, 8834-8840.	4.0	81
58	Microfluidic CD4+ T-Cell Counting Device Using Chemiluminescence-Based Detection. Analytical Chemistry, 2010, 82, 36-40.	3.2	80
59	Beetle and cactus-inspired surface endows continuous and directional droplet jumping for efficient water harvesting. Journal of Materials Chemistry A, 2021, 9, 1507-1516.	5.2	79
60	Directed rebounding of droplets by microscale surface roughness gradients. Applied Physics Letters, 2010, 96, .	1.5	78
61	Bioinspired footed soft robot with unidirectional all-terrain mobility. Materials Today, 2020, 35, 42-49.	8.3	77
62	Multi-bioinspired self-cleaning energy-free cooling coatings. Journal of Materials Chemistry A, 2021, 9, 24276-24282.	5.2	77
63	Design of ultra-stretchable, highly adhesive and self-healable hydrogels via tannic acid-enabled dynamic interactions. Materials Horizons, 2021, 8, 3409-3416.	6.4	76
64	Pancake Bouncing: Simulations and Theory and Experimental Verification. Langmuir, 2014, 30, 13021-13032.	1.6	75
65	Fully Biodegradable Water Droplet Energy Harvester Based on Leaves of Living Plants. ACS Applied Materials & Interfaces, 2020, 12, 56060-56067.	4.0	69
66	Multistimuli-Responsive Microstructured Superamphiphobic Surfaces with Large-Range, Reversible Switchable Wettability for Oil. ACS Applied Materials & Interfaces, 2019, 11, 28478-28486.	4.0	66
67	Transforming Ti3C2Tx MXeneâ€™s intrinsic hydrophilicity into superhydrophobicity for efficient photothermal membrane desalination. Nature Communications, 2022, 13, .	5.8	65
68	A self-powered acceleration sensor with flexible materials based on triboelectric effect. Nano Energy, 2017, 31, 469-477.	8.2	64
69	Light-induced charged slippery surfaces. Science Advances, 2022, 8, .	4.7	63
70	Do droplets always move following the wettability gradient?. Applied Physics Letters, 2011, 98, .	1.5	62
71	Boosting the output performance of volume effect electricity generator (VEEG) with water column. Nano Energy, 2020, 73, 104748.	8.2	62
72	Underwater Superoleophobic Membrane with Enhanced Oilâ€“Water Separation, Antimicrobial, and Antifouling Activities. Advanced Materials Interfaces, 2016, 3, 1500664.	1.9	60

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73	Creep mitigation in composites using carbon nanotube additives. Nanotechnology, 2007, 18, 185703.	1.3	59
74	Natureâ€Inspired Strategy for Anticorrosion. Advanced Engineering Materials, 2019, 21, 1801379.	1.6	58
75	In Situ Formation of Bismuthâ€Based Perovskite Heterostructures for Highâ€Performance Cocatalystâ€Free Photocatalytic Hydrogen Evolution. Advanced Functional Materials, 2020, 30, 2006919.	7.8	58
76	Harvesting energy from highâ€frequency impinging water droplets by a dropletâ€based electricity generator. EcoMat, 2021, 3, e12116.	6.8	57
77	Designing biomimetic liquid diodes. Soft Matter, 2019, 15, 1902-1915.	1.2	55
78	Fusion of Slippery Interfaces and Transistor-Inspired Architecture for Water Kinetic Energy Harvesting. Joule, 2020, 4, 2527-2531.	11.7	55
79	A fluorinated polymer sponge with superhydrophobicity for high-performance biomechanical energy harvesting. Nano Energy, 2021, 85, 106021.	8.2	55
80	Self-Powered Multifunction Ionic Skins Based on Gradient Polyelectrolyte Hydrogels. ACS Nano, 2022, 16, 4714-4725.	7.3	55
81	3D Printed, Solidâ€State Conductive Ionoelastomer as a Generic Building Block for Tactile Applications. Advanced Materials, 2022, 34, e2105996.	11.1	54
82	Revisiting the adhesion mechanism of mussel-inspired chemistry. Chemical Science, 2022, 13, 1698-1705.	3.7	53
83	Skinâ€Integrated Grapheneâ€Embedded Lead Zirconate Titanate Rubber for Energy Harvesting and Mechanical Sensing. Advanced Materials Technologies, 2019, 4, 1900744.	3.0	52
84	Self-propelled droplet-based electricity generation. Nanoscale, 2018, 10, 23164-23169.	2.8	49
85	Activation of multiple signaling pathways during the differentiation of mesenchymal stem cells cultured in a silicon nanowire microenvironment. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1153-1163.	1.7	48
86	Reorganization of Cytoskeleton and Transient Activation of Ca2+ Channels in Mesenchymal Stem Cells Cultured on Silicon Nanowire Arrays. ACS Applied Materials & Interfaces, 2013, 5, 13295-13304.	4.0	47
87	Strain Engineering of Waveâ€like Nanofibers for Dynamically Switchable Adhesive/Repulsive Surfaces. Advanced Functional Materials, 2016, 26, 399-407.	7.8	47
88	Droplets Can Rebound toward Both Directions on Textured Surfaces with a Wettability Gradient. Langmuir, 2016, 32, 346-351.	1.6	47
89	Salvinia-like slippery surface with stable and mobile water/air contact line. National Science Review, 2021, 8, nwaa153.	4.6	47
90	Electrostatic tweezer for droplet manipulation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	47

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91	Droplet energy harvesting panel. Energy and Environmental Science, 2022, 15, 2916-2926.	15.6	47
92	Macrotextures-induced jumping relay of condensate droplets. Applied Physics Letters, 2019, 114, .	1.5	46
93	Adhesion of Microdroplets on Water-Repellent Surfaces toward the Prevention of Surface Fouling and Pathogen Spreading by Respiratory Droplets. ACS Applied Materials & Interfaces, 2017, 9, 6599-6608.	4.0	45
94	Rapid and Persistent Suction Condensation on Hydrophilic Surfaces for High-Efficiency Water Collection. Nano Letters, 2021, 21, 7411-7418.	4.5	45
95	Horizontal Motion of a Superhydrophobic Substrate Affects the Drop Bouncing Dynamics. Physical Review Letters, 2021, 126, 234503.	2.9	44
96	Bubble energy generator. Science Advances, 2022, 8, .	4.7	44
97	Electrocatalytic performance of cubic NiS2 and hexagonal NiS for oxygen reduction reaction. Journal of Catalysis, 2018, 359, 223-232.	3.1	43
98	Force analysis and bubble dynamics during flow boiling in silicon nanowire microchannels. International Journal of Heat and Mass Transfer, 2016, 101, 915-926.	2.5	42
99	A novel, flexible dual-mode power generator adapted for wide dynamic range of the aqueous salinity. Nano Energy, 2021, 85, 105970.	8.2	41
100	A bulk effect liquid-solid generator with 3D electrodes for wave energy harvesting. Nano Energy, 2021, 87, 106218.	8.2	41
101	Nanostructured silver nanowires-graphene hybrids for enhanced electrochemical detection of hydrogen peroxide. Applied Physics Letters, 2013, 102, .	1.5	40
102	A leaf-mimic rain energy harvester by liquid-solid contact electrification and piezoelectricity. Nano Energy, 2021, 90, 106573.	8.2	40
103	A Biocompatible Vibrationâ€Actuated Omniâ€Droplets Rectifier with Large Volume Range Fabricated by Femtosecond Laser. Advanced Materials, 2022, 34, e2108567.	11.1	40
104	A Skinâ€Inspired Design Integrating Mechanoâ€“Chemicalâ€“Thermal Robustness into Superhydrophobic Coatings. Advanced Materials, 2022, 34, .	11.1	40
105	The rational design of a peptide-based hydrogel responsive to H₂S. Chemical Communications, 2015, 51, 17273-17276.	2.2	39
106	Pancake Jumping of Sessile Droplets. Advanced Science, 2022, 9, e2103834.	5.6	39
107	Superhydrophobic and superoleophilic PH-CNT membrane for emulsified oil-water separation. Desalination, 2022, 526, 115536.	4.0	39
108	Skin-integrated, stretchable, transparent triboelectric nanogenerators based on ion-conducting hydrogel for energy harvesting and tactile sensing. Nano Energy, 2022, 99, 107442.	8.2	39

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109	Supercapillary Architectureâ€Activated Twoâ€Phase Boundary Layer Structures for Highly Stable and Efficient Flow Boiling Heat Transfer. Advanced Materials, 2020, 32, e1905117.	11.1	38
110	Inhibiting Random Droplet Motion on Hot Surfaces by Engineering Symmetryâ€Breaking Janusâ€Mushroom Structure. Advanced Materials, 2020, 32, e1907999.	11.1	38
111	Microfluidics Assisted Fabrication of Three-Tier Hierarchical Microparticles for Constructing Bioinspired Surfaces. ACS Nano, 2019, 13, 3638-3648.	7.3	37
112	Wetting and Electrowetting Properties of Carbon Nanotube Templated Parylene Films. Journal of Physical Chemistry B, 2007, 111, 4296-4299.	1.2	36
113	Breakdown in the directional transport of droplets on the peristome of pitcher plants. Communications Physics, 2018, 1, .	2.0	36
114	Spontaneous Wenzel to Cassie dewetting transition on structured surfaces. Physical Review Fluids, 2016, 1, .	1.0	36
115	Condensation frosting and passive anti-frosting. Cell Reports Physical Science, 2021, 2, 100474.	2.8	35
116	In situ reduction of silver nanoparticles on hybrid polydopamineâ€“copper phosphate nanoflowers with enhanced antimicrobial activity. Journal of Materials Chemistry B, 2017, 5, 5311-5317.	2.9	34
117	Crack engineering for the construction of arbitrary hierarchical architectures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23909-23914.	3.3	34
118	Transfer-Free PZT Thin Films for Flexible Nanogenerators Derived from a Single-Step Modified Solâ€“Gel Process on 2D Mica. ACS Applied Materials & Interfaces, 2020, 12, 54991-54999.	4.0	34
119	Robust liquid repellency by stepwise wetting resistance. Applied Physics Reviews, 2021, 8, .	5.5	34
120	Direct ink writing of fluoropolymer/CNT-based superhydrophobic and corrosion-resistant electrodes for droplet energy harvesters and self-powered electronic skins. Nano Energy, 2021, 86, 106095.	8.2	33
121	Electronic Skin from High-Throughput Fabrication of Intrinsically Stretchable Lead Zirconate Titanate Elastomer. Research, 2020, 2020, 1085417.	2.8	33
122	Fe3O4/Au/Fe3O4nanoflowers exhibiting tunable saturation magnetization and enhanced bioconjugation. Nanoscale, 2012, 4, 747-751.	2.8	32
123	Rectification of Mobile Leidenfrost Droplets by Planar Ratchets. Small, 2020, 16, e1901751.	5.2	32
124	Macrotextures-enabled self-propelling of large condensate droplets. Chemical Engineering Journal, 2021, 405, 126901.	6.6	32
125	Electrohydrodynamic and Hydroelectric Effects at the Waterâ€“Solid Interface: from Fundamentals to Applications. Advanced Materials Interfaces, 2021, 8, 2000670.	1.9	32
126	Patterned Amyloid Materials Integrating Robustness and Genetically Programmable Functionality. Nano Letters, 2019, 19, 8399-8408.	4.5	31

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127	Harvesting ultralow frequency (< 1â€¯Hz) mechanical energy using triboelectric nanogenerator. Nano Energy, 2019, 65, 104011.	8.2	31
128	Improved dynamic stability of superomniphobic surfaces and droplet transport on slippery surfaces by dual-scale re-entrant structures. Chemical Engineering Journal, 2020, 394, 124871.	6.6	31
129	Toward advanced sodium-ion batteries: a wheel-inspired yolkâ€“shell design for large-volume-change anode materials. Journal of Materials Chemistry A, 2018, 6, 13153-13163.	5.2	30
130	Highly efficient thermogenesis from Fe₃O₄ nanoparticles for thermoplastic material repair both in air and underwater. Journal of Materials Chemistry A, 2017, 5, 1221-1232.	5.2	29
131	Preparation of nanoscale liquid metal droplet wrapped with chitosan and its tribological properties as water-based lubricant additive. Tribology International, 2020, 148, 106349.	3.0	28
132	Theoretical investigation and experimental verification of the self-powered acceleration sensor based on triboelectric nanogenerators (TENGs). Extreme Mechanics Letters, 2021, 42, 101021.	2.0	28
133	Superhydrophobic porous networks for enhanced droplet shedding. Scientific Reports, 2016, 6, 33817.	1.6	27
134	Proteinâ€“Substrate Adhesion in Microcontact Printing Regulates Cell Behavior. Langmuir, 2018, 34, 1750-1759.	1.6	26
135	A silicon micromachined shock accelerometer with twin-mass-plate structure. Sensors and Actuators A: Physical, 2003, 107, 50-56.	2.0	25
136	Dynamic control of droplet jumping by tailoring nanoparticle concentrations. Applied Physics Letters, 2016, 109, .	1.5	23
137	Nature-inspired surface topography: design and function. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	2.0	23
138	Toward Self-Powered Inertial Sensors Enabled by Triboelectric Effect. ACS Applied Electronic Materials, 2020, 2, 3072-3087.	2.0	23
139	Breaking the nanoparticleâ€™s dispersible limit via rotatable surface ligands. Nature Communications, 2022, 13, .	5.8	23
140	Droplet dynamics on slippery surfaces: small droplet, big impact. Biosurface and Biotribology, 2019, 5, 35-45.	0.6	22
141	How Universal Is the Wetting Aging in 2D Materials. Nano Letters, 2020, 20, 5670-5677.	4.5	22
142	Onâ€Site Formation of Emulsions by Controlled Air Plugs. Small, 2014, 10, 758-765.	5.2	21
143	Single-Crystalline UiO-67-Type Porous Network Stable to Boiling Water, Solvent Loss, and Oxidation. Inorganic Chemistry, 2018, 57, 6198-6201.	1.9	21
144	Corrosion protection of Aluminium Alloy 2024 through an epoxy coating embedded with smart microcapsules: The responses of smart microcapsules to corrosive entities. Corrosion Communications, 2021, 1, 1-9.	2.7	21

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145	Instant and Strong Underwater Adhesion by Coupling Hygroscopicity and In Situ Photocuring. Chemistry of Materials, 2021, 33, 8822-8830.	3.2	21
146	Microflower-Decorated Superhydrophobic Copper Surface for Dry Condensation. Langmuir, 2019, 35, 16275-16280.	1.6	20
147	Hydrodynamic constraints on the energy efficiency of droplet electricity generators. Microsystems and Nanoengineering, 2021, 7, 49.	3.4	20
148	Explosive Pancake Bouncing on Hot Superhydrophilic Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 24321-24328.	4.0	19
149	Complete Prevention of Contact Electrification by Molecular Engineering. Matter, 2021, 4, 290-301.	5.0	19
150	Digital microfluidic meter-on-chip. Lab on A Chip, 2020, 20, 722-733.	3.1	17
151	Modulation of solid surface with desirable under-liquid wettability based on molecular hydrophilicâ€“lipophilic balance. Chemical Science, 2021, 12, 6136-6142.	3.7	17
152	Recent Progress on Plant-Inspired Soft Robotics with Hydrogel Building Blocks: Fabrication, Actuation and Application. Micromachines, 2021, 12, 608.	1.4	16
153	Counterintuitive Ballistic and Directional Liquid Transport on a Flexible Droplet Rectifier. Research, 2020, 2020, 6472313.	2.8	16
154	Pressure-Sensitive Adhesive with Enhanced and Phototunable Underwater Adhesion. ACS Applied Materials & Interfaces, 2021, 13, 50451-50460.	4.0	16
155	Skin-Like Strain Sensors Enabled by Elastomer Composites for Humanâ€“Machine Interfaces. Coatings, 2020, 10, 711.	1.2	15
156	Design of micro-nano structures for counter flow diverging microchannel heat sink with extraordinarily high energy efficiency. Applied Thermal Engineering, 2022, 209, 118229.	3.0	15
157	A flexible and lead-free BCZT thin film nanogenerator for biocompatible energy harvesting. Materials Chemistry Frontiers, 2021, 5, 4682-4689.	3.2	14
158	Suppression of composite nanoparticle aggregation through steric stabilization and ligand exchange for colorimetric protein detection. RSC Advances, 2013, 3, 9681.	1.7	13
159	Controlled cell patterning on bioactive surfaces with special wettability. Journal of Bionic Engineering, 2017, 14, 440-447.	2.7	13
160	Mangrove Inspired Anti-Corrosion Coatings. Coatings, 2019, 9, 725.	1.2	13
161	Directional Liquid Transport from the Cold Region to the Hot Region on a Topological Surface. Langmuir, 2021, 37, 5059-5065.	1.6	13
162	An experimental study of condensation on an aluminum radiant ceiling panel surface with superhydrophobic treatment. Energy and Buildings, 2021, 252, 111393.	3.1	13

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163	In situ Reduction of Silver Nanoparticles on Chitosan Hybrid Copper Phosphate Nanoflowers for Highly Efficient Plasmonic Solar-driven Interfacial Water Evaporation. Journal of Bionic Engineering, 2021, 18, 30-39.	2.7	13
164	A new scaling number reveals droplet dynamics on vibratory surfaces. Journal of Colloid and Interface Science, 2022, 608, 2414-2420.	5.0	13
165	Water Purification/Harvesting: Harnessing Solarâ€Driven Photothermal Effect toward the Waterâ€“Energy Nexus (Adv. Sci. 18/2019). Advanced Science, 2019, 6, 1970111.	5.6	12
166	Surface charges as a versatile platform for emerging applications. Science Bulletin, 2020, 65, 1052-1054.	4.3	12
167	Recent Progress on Bioinspired Antibacterial Surfaces for Biomedical Application. Biomimetics, 2022, 7, 88.	1.5	12
168	Pressure control model for transport of liquid mercury in carbon nanotubes. Applied Physics Letters, 2007, 90, 144105.	1.5	11
169	Single wafer fabrication of a symmetric double-sided beamâ€“mass structure using DRIE and wet etching by a novel vertical sidewall protection technique. Journal of Micromechanics and Microengineering, 2010, 20, 115009.	1.5	11
170	Monitoring the intracellular calcium response to a dynamic hypertonic environment. Scientific Reports, 2016, 6, 23591.	1.6	11
171	Achievement of safer palladium nanocrystals by enlargement of {100} crystallographic facets. Nanotoxicology, 2017, 11, 907-922.	1.6	11
172	Strengthening unidirectional liquid pumping using multi-biomimetic structures. Extreme Mechanics Letters, 2021, 43, 101144.	2.0	11
173	An Environmental Perception Selfâ€Adaptive Discolorable Hydrogel Film toward Sensing and Display. Advanced Optical Materials, 2021, 9, 2100116.	3.6	11
174	3D Conformal Fabrication of Piezoceramic Films. Advanced Science, 2022, 9, e2106030.	5.6	10
175	Filmwise-to-Dropwise Condensation Transition Enabled by Patterned High Wetting Contrast. Journal of Heat Transfer, 2015, 137, .	1.2	9
176	Genotyping of Multiple Clinical Samples with a Combined Direct PCR and Magnetic Lateral Flow Assay. IScience, 2018, 7, 170-179.	1.9	9
177	Robust Icephobic Performance of Flexible Needles. ChemNanoMat, 2019, 5, 175-180.	1.5	9
178	A Fully Selfâ€Powered Cholesteric Smart Window Actuated by Dropletâ€Based Electricity Generator. Advanced Optical Materials, 2022, 10, .	3.6	9
179	Flexible topological liquid diode catheter. Materials Today Physics, 2020, 12, 100170.	2.9	8
180	One-step process for dual-scale ratchets with enhanced mobility of Leidenfrost droplets. Journal of Colloid and Interface Science, 2020, 569, 229-234.	5.0	8

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181	Sustaining Robust Cavities with Slippery Liquidâ€“Liquid Interfaces. Advanced Science, 2022, 9, e2103568.	5.6	8
182	Publisherâ€™s Note: Evaporation of Droplets on Superhydrophobic Surfaces: Surface Roughness and Small Droplet Size Effects [Phys. Rev. Lett.109, 116101 (2012)]. Physical Review Letters, 2012, 109, .	2.9	7
183	New approach for efficient condensation heat transfer. National Science Review, 2019, 6, 185-186.	4.6	7
184	Electrically Controlled Wetting and Dewetting Transition on Silicon Micro-Pillar Arrays. Advanced Science Letters, 2008, 1, 222-225.	0.2	7
185	Surface engineering and on-site charge neutralization for the regulation of contact electrification. Nano Energy, 2022, 91, 106687.	8.2	6
186	Bioinspired Topological Surfaces for Mitigating Water, Thermal and Energy Crises. Accounts of Materials Research, 2022, 3, 199-212.	5.9	6
187	Soft, stretchable, wireless intelligent threeâ€lead electrocardiograph monitors with feedback functions for warning of potential heart attack. SmartMat, 2022, 3, 668-684.	6.4	5
188	Cell sorting with combined optical tweezers and microfluidic chip technologies. , 2010, , .		4
189	Evaporation of Condensate Droplets on Structured Surfaces with Gradient Roughness. Journal of Heat Transfer, 2015, 137, .	1.2	4
190	Bioinspired Materials: Bioinspired Interfacial Materials with Enhanced Drop Mobility: From Fundamentals to Multifunctional Applications (Small 14/2016). Small, 2016, 12, 1824-1824.	5.2	4
191	A water droplet motion energy harvester with wafer-level fabrication method. Journal of Micromechanics and Microengineering, 2020, 30, 065006.	1.5	3
192	Topography-Regulated Disorder-to-Order Transition of Condensation Droplets. Langmuir, 2020, 36, 6188-6192.	1.6	3
193	Preparation of shape-controlling VO2(M/R) nanoparticles via one-step hydrothermal synthesis. Frontiers of Optoelectronics, 2021, 14, 311-320.	1.9	3
194	3D architected temperature-tolerant organohydrogels with ultra-tunable energy absorption. IScience, 2021, 24, 102789.	1.9	3
195	Hydrophilic Slippery Surface Promotes Efficient Defrosting. Langmuir, 2021, 37, 11931-11938.	1.6	3
196	Bismuthâ€Based Perovskite Heterostructures: In Situ Formation of Bismuthâ€Based Perovskite Heterostructures for Highâ€Performance Cocatalystâ€Free Photocatalytic Hydrogen Evolution (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7	2
197	Control and Patterning of Various Hydrophobic Surfaces: In-situ Modification Realized by Flexible Atmospheric Plasma Stamp Technique. Journal of Bionic Engineering, 2020, 17, 436-447.	2.7	2
198	Survival Strategies of Mangrove (Ceriops tagal (perr.) C. B. Rob) and the Inspired Corrosion Inhibitor. Frontiers in Materials, 2022, 9, .	1.2	2

#	Article	IF	Citations
199	Suppressing Electrostatic Screening in Nanostructured Electrode Arrays. Journal of Nanoscience and Nanotechnology, 2006, 6, 1979-1984.	0.9	1
200	Biomimetic Surfaces for Enhanced Dropwise Condensation Heat Transfer: Mimic Nature and Transcend Nature. , 2016, , 185-228.		1
201	Adhesives: Remote Control over Underwater Dynamic Attachment/Detachment and Locomotion (Adv.) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	1
202	Phaseâ€Change Heat Transfer: Supercapillary Architectureâ€Activated Twoâ€Phase Boundary Layer Structures for Highly Stable and Efficient Flow Boiling Heat Transfer (Adv. Mater. 2/2020). Advanced Materials, 2020, 32, 2070013.	11.1	1
203	Small droplet, big world. , 2022, 1, 1-1.		1
204	Harnessing the synergistic cooperation of silver nanowires and graphene for enhanced electrochemical detection of hydrogen peroxide. , 2013, , .		0
205	Force Analysis of Bubble Dynamics in Flow Boiling Silicon Nanowire Microchannels. , 2016, , .		0
206	Nature-Inspired Surfaces for Water-Energy Nexus. , 2021, , .		0
207	Rapid and Sensitive Genotyping of Multiple Clinical Samples Based on a Combined Direct PCR and Magnetic Lateral Flow Assay. SSRN Electronic Journal, 0, , .	0.4	0
208	10.1063/1.5082727.1. , 2019, , .		0
209	10.1063/1.5082727.2. , 2019, , .		0
210	Terminal velocities of a deformed Leidenfrost liquid: Experiments and self-propulsion model. Physical Review Fluids, 2022, 7, .	1.0	0