

Yongmei Zheng

List of Publications by Year in descending order

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96
papers

10,129
citations

76294

40
h-index

36008

97
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102
all docs

102
docs citations

102
times ranked

6799
citing authors

#	ARTICLE	IF	CITATIONS
1	Directional water collection on wetted spider silk. <i>Nature</i> , 2010, 463, 640-643.	13.7	1,678
2	A multi-structural and multi-functional integrated fog collection system in cactus. <i>Nature Communications</i> , 2012, 3, 1247.	5.8	1,098
3	Directional adhesion of superhydrophobic butterfly wings. <i>Soft Matter</i> , 2007, 3, 178-182.	1.2	1,020
4	Bioinspired Super-antiwetting Interfaces with Special Liquid-Solid Adhesion. <i>Accounts of Chemical Research</i> , 2010, 43, 368-377.	7.6	575
5	Icephobic/Anti-Icing Properties of Micro/Nanostructured Surfaces. <i>Advanced Materials</i> , 2012, 24, 2642-2648.	11.1	518
6	Efficient Water Collection on Integrative Bioinspired Surfaces with Star-Shaped Wettability Patterns. <i>Advanced Materials</i> , 2014, 26, 5025-5030.	11.1	467
7	Robust Anti-Icing Performance of a Flexible Superhydrophobic Surface. <i>Advanced Materials</i> , 2016, 28, 7729-7735.	11.1	453
8	Direction Controlled Driving of Tiny Water Drops on Bioinspired Artificial Spider Silks. <i>Advanced Materials</i> , 2010, 22, 5521-5525.	11.1	272
9	Simple Fabrication of Full Color Colloidal Crystal Films with Tough Mechanical Strength. <i>Macromolecular Chemistry and Physics</i> , 2006, 207, 596-604.	1.1	232
10	Janus interface materials: superhydrophobic air/solid interface and superoleophobic water/solid interface inspired by a lotus leaf. <i>Soft Matter</i> , 2011, 7, 5948.	1.2	203
11	High-Efficiency Fog Collector: Water Unidirectional Transport on Heterogeneous Rough Conical Wires. <i>ACS Nano</i> , 2016, 10, 10681-10688.	7.3	179
12	Controlled Fabrication and Water Collection Ability of Bioinspired Artificial Spider Silks. <i>Advanced Materials</i> , 2011, 23, 3708-3711.	11.1	162
13	Functional Fibers with Unique Wettability Inspired by Spider Silks. <i>Advanced Materials</i> , 2012, 24, 2786-2791.	11.1	148
14	Asymmetric Ratchet Effect for Directional Transport of Fog Drops on Static and Dynamic Butterfly Wings. <i>ACS Nano</i> , 2014, 8, 1321-1329.	7.3	148
15	Antifogging and Icing-Delay Properties of Composite Micro- and Nanostructured Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 3963-3968.	4.0	135
16	Magnetically Induced Low Adhesive Direction of Nano/Micropillar Arrays for Microdroplet Transport. <i>Advanced Functional Materials</i> , 2018, 28, 1800163.	7.8	128
17	Droplets Manipulated on Photothermal Organogel Surfaces. <i>Advanced Functional Materials</i> , 2018, 28, 1803072.	7.8	121
18	Large-Scale Fabrication of Bioinspired Fibers for Directional Water Collection. <i>Small</i> , 2011, 7, 3429-3433.	5.2	119

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19	Bioinspired Heterostructured Bead-on-a-String Fibers That Respond to Environmental Wetting. <i>Advanced Functional Materials</i> , 2011, 21, 1398-1402.	7.8	114
20	Excellent Fog Droplets Collector via Integrative Janus Membrane and Conical Spine with Micro/Nanostructures. <i>Small</i> , 2018, 14, e1801335.	5.2	108
21	Bioinspired Electrospun Knotted Microfibers for Fog Harvesting. <i>ChemPhysChem</i> , 2012, 13, 1153-1156.	1.0	102
22	Controlling Water Capture of Bioinspired Fibers with Hump Structures. <i>Advanced Materials</i> , 2011, 23, 5486-5491.	11.1	100
23	Controlled Smart Anisotropic Unidirectional Spreading of Droplet on a Fibrous Surface. <i>Advanced Materials</i> , 2015, 27, 5057-5062.	11.1	90
24	Fog Harvesting of a Bioinspired Nanocone-Decorated 3D Fiber Network. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4507-4513.	4.0	86
25	Water Collection Behavior and Hanging Ability of Bioinspired Fiber. <i>Langmuir</i> , 2012, 28, 4737-4743.	1.6	84
26	Bioinspired micro-/nanostructure fibers with a water collecting property. <i>Nanoscale</i> , 2014, 6, 7703.	2.8	81
27	How does the leaf margin make the lotus surface dry as the lotus leaf floats on water?. <i>Soft Matter</i> , 2008, 4, 2232.	1.2	80
28	Antiadhesion Organogel Materials: From Liquid to Solid. <i>Advanced Materials</i> , 2017, 29, 1703032.	11.1	70
29	Directional shedding-off of water on natural/bio-mimetic taper-ratchet array surfaces. <i>Soft Matter</i> , 2012, 8, 1770-1775.	1.2	62
30	Controlled droplet transport to target on a high adhesion surface with multi-gradients. <i>Scientific Reports</i> , 2017, 7, 45687.	1.6	61
31	Directional Drop Transport Achieved on High-Temperature Anisotropic Wetting Surfaces. <i>Advanced Materials</i> , 2014, 26, 6086-6091.	11.1	59
32	Integrative Bioinspired Surface with Wettable Patterns and Gradient for Enhancement of Fog Collection. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10951-10958.	4.0	56
33	Controlled Directional Water Droplet Spreading on a High-Adhesion Surface. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6163-6167.	7.2	55
34	Ice-phobic gummed tape with nano-cones on microspheres. <i>Journal of Materials Chemistry A</i> , 2014, 2, 3312.	5.2	51
35	Effective directional self-gathering of drops on spine of cactus with splayed capillary arrays. <i>Scientific Reports</i> , 2015, 5, 17757.	1.6	51
36	Magnetic field-guided directional rebound of a droplet on a superhydrophobic flexible needle surface. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18289-18293.	5.2	51

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37	Multi-level micro-/nanostructures of butterfly wings adapt at low temperature to water repellency. <i>Soft Matter</i> , 2011, 7, 10569.	1.2	47
38	Bioinspired spindle-knotted fibers with a strong water-collecting ability from a humid environment. <i>Soft Matter</i> , 2012, 8, 11450.	1.2	46
39	Stronger water hanging ability and higher water collection efficiency of bioinspired fiber with multi-gradient and multi-scale spindle knots. <i>Soft Matter</i> , 2012, 8, 11236.	1.2	45
40	Water Harvesting of Bioinspired Microfibers with Rough Spindle-Knots from Microfluidics. <i>Small</i> , 2020, 16, e1901819.	5.2	45
41	Excellent Anti-Icing Abilities of Optimal Micropillar Arrays with Nanohairs. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500352.	1.9	41
42	Highly Efficient Fog Collection Unit by Integrating Artificial Spider Silks. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500831.	1.9	39
43	Directional size-triggered microdroplet target transport on gradient-step fibers. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7156-7160.	5.2	38
44	Fog Collection on a Bio-inspired Topological Alloy Net with Micro-/Nanostructures. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 5065-5072.	4.0	37
45	Directional Droplet Spreading Transport Controlled on Tilted Pillar Arrays. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800962.	1.9	36
46	Water collection abilities of green bristlegrass bristle. <i>RSC Advances</i> , 2014, 4, 40837-40840.	1.7	35
47	Bioinspired Nanofibril-Humped Fibers with Strong Capillary Channels for Fog Capture. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 28876-28884.	4.0	34
48	Continuous Directional Water Transport on Integrating Tapered Surfaces. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000081.	1.9	32
49	Capillary adhesion of wetted cribellate spider capture silks for larger pearly hanging-drops. <i>Soft Matter</i> , 2011, 7, 9468.	1.2	31
50	A Strategy of Antifogging: Air-Trapped Hollow Microsphere Nanocomposites. <i>Chemistry of Materials</i> , 2017, 29, 2899-2905.	3.2	31
51	Ratchet-induced anisotropic behavior of superparamagnetic microdroplet. <i>Applied Physics Letters</i> , 2009, 94, 144104.	1.5	30
52	Photo-controlled water gathering on bio-inspired fibers. <i>Soft Matter</i> , 2013, 9, 9294.	1.2	30
53	Wetting-controlled strategies: From theories to bio-inspiration. <i>Journal of Colloid and Interface Science</i> , 2014, 427, 2-14.	5.0	28
54	Bioinspired wet-assembly fibers: from nanofragments to microhumps on string in mist. <i>Journal of Materials Chemistry A</i> , 2014, 2, 9465.	5.2	28

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55	Dynamic Magnetic Responsive Wall Array with Droplet Shedding-off Properties. <i>Scientific Reports</i> , 2015, 5, 11209.	1.6	28
56	Excellent fog harvesting performance of liquid-infused nano-textured 3D frame. <i>Chemical Engineering Journal</i> , 2021, 409, 128180.	6.6	27
57	Water-assisted fabrication of porous bead-on-string fibers. <i>Journal of Materials Chemistry A</i> , 2013, 1, 8363.	5.2	25
58	Radial Wettable Gradient of Hot Surface to Control Droplets Movement in Directions. <i>Scientific Reports</i> , 2015, 5, 10067.	1.6	22
59	Droplet Transport on a Nano- and Microstructured Surface with a Wettability Gradient in Low-Temperature or High-Humidity Environments. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500040.	1.9	22
60	Bioinspired Structure Materials to Control Water-collecting Properties. <i>Materials Today: Proceedings</i> , 2016, 3, 696-702.	0.9	22
61	Controlling of Water Collection Ability by an Elasticity-Regulated Bioinspired Fiber. <i>Macromolecular Rapid Communications</i> , 2015, 36, 459-464.	2.0	20
62	Directional bouncing of droplets on oblique two-tier conical structures. <i>RSC Advances</i> , 2017, 7, 35771-35775.	1.7	20
63	Excellent bead-on-string silkworm silk with drop capturing abilities. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1230-1234.	5.2	19
64	Controlled droplet transport on a gradient adhesion surface. <i>Chemical Communications</i> , 2015, 51, 6010-6013.	2.2	19
65	Orientation-Induced Effects of Water Harvesting on Humps-on-Strings of Bioinspired Fibers. <i>Scientific Reports</i> , 2016, 6, 19978.	1.6	16
66	Wettability gradient on the elytra in the aquatic beetle <i>Cybister chinensis</i> and its role in angular position of the beetle at water-air interface. <i>Acta Biomaterialia</i> , 2017, 51, 408-417.	4.1	15
67	Recent advances in biomimetic fog harvesting: focusing on higher efficiency and large-scale fabrication. <i>Molecular Systems Design and Engineering</i> , 2021, 6, 986-996.	1.7	15
68	Controlled transportation of droplets and higher fog collection efficiency on a multi-scale and multi-gradient copper wire. <i>RSC Advances</i> , 2017, 7, 29606-29610.	1.7	13
69	An Integrative Mesh with Dual Wettable On-Off Switch of Water/Oil. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701193.	1.9	13
70	Enhanced Fog Harvesting through Capillary-Assisted Rapid Transport of Droplet Confined in the Given Microchannel. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 48292-48300.	4.0	13
71	Extreme "water repellency" on strong water-spreading surface without tilted degree actuation. <i>Applied Physics Letters</i> , 2008, 93, 094107.	1.5	12
72	Robust superhydrophobic coatings with micro- and nano-composite morphology. <i>RSC Advances</i> , 2017, 7, 44234-44238.	1.7	12

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73	Design of flexible multi-level topography for enhancing mechanical property. Nano Select, 2021, 2, 541-548.	1.9	12
74	Bio-inspired artificial cilia with magnetic dynamic properties. Frontiers of Materials Science, 2015, 9, 178-184.	1.1	10
75	Direct Imaging of Superwetting Behavior on Solid-Liquid-Vapor Triphase Interfaces. Advanced Materials, 2017, 29, 1703009.	11.1	10
76	Coalesced Droplets Transport to Apexes of Magnetic Flexible Cone Spine Array. Advanced Materials Interfaces, 2016, 3, 1600145.	1.9	9
77	Antiicing Properties of Bioinspired Liquid-Infused Double-Layer Surface with Internal Wetting Transport Ability. Advanced Materials Interfaces, 2019, 6, 1900244.	1.9	9
78	Robust Icephobic Performance of Flexible Needles. ChemNanoMat, 2019, 5, 175-180.	1.5	9
79	Elastic Microstaggered Porous Superhydrophilic Framework as a Robust Fogwater Harvester. ACS Applied Materials & Interfaces, 2020, 12, 48049-48056.	4.0	9
80	One-step fabricated wettable gradient surface for controlled directional underwater oil-droplet transport. RSC Advances, 2017, 7, 7885-7889.	1.7	8
81	Multilevel Nanoparticles Coatings with Excellent Liquid Repellency. Advanced Materials Interfaces, 2018, 5, 1800405.	1.9	6
82	High efficient fog-water harvesting via spontaneous swallowing mechanism. Nano Energy, 2022, 96, 107076.	8.2	6
83	Droplet Self-Propelling Control on Bioinspired Fiber in Low Temperature and High Humidity Environment. Advanced Materials Interfaces, 2020, 7, 1901183.	1.9	5
84	Droplet Manipulation: Magically Cut Apart Microdroplet by Smart Nanofibrils Wire. Advanced Materials Interfaces, 2020, 7, 2000161.	1.9	5
85	Electromigration-triggered programmable droplet spreading. Chemical Engineering Journal, 2021, 423, 130281.	6.6	4
86	Bioinspired Fibers: Large-Scale Fabrication of Bioinspired Fibers for Directional Water Collection (Small 24/2011). Small, 2011, 7, 3428-3428.	5.2	2
87	Underwater Fast Bubble Generating on Pitaya Thorn and Enhanced Biomimetic Gas Collection. Advanced Materials Interfaces, 2022, 9, .	1.9	2
88	Organic Nanowires: Organic Nanowire Crystals Combine Excellent Device Performance and Mechanical Flexibility (Small 2/2011). Small, 2011, 7, 162-162.	5.2	1
89	Drug Delivery: Bio-inspired Heterostructured Bead-on-String Fibers That Respond to Environmental Wetting (Adv. Funct. Mater. 8/2011). Advanced Functional Materials, 2011, 21, 1330-1330.	7.8	1
90	Wet-Induced Fabrication of Heterogeneous Hump-on-String Fibers. Materials, 2015, 8, 4249-4257.	1.3	1

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91	Wettability: An Integrative Mesh with Dual Wettable On-Off Switch of Water/Oil (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.9	1
92	Tiltâ€Angle Pillar Arrays: Directional Droplet Spreading Transport Controlled on Tiltâ€Angle Pillar Arrays (Adv. Mater. Interfaces 22/2018). Advanced Materials Interfaces, 2018, 5, 1870108.	1.9	1
93	Bioinspired functions. , 2019, , 147-246.		1
94	Extremely Iceâ€Detached Array of Pine Needleâ€Inspired Concaveâ€Cone Pillars. Advanced Materials Interfaces, 2020, 7, 1901714.	1.9	1
95	Functional Fibers: Functional Fibers with Unique Wettability Inspired by Spider Silks (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock 10	11.1	6
96	Coatings: Multilevel Nanoparticles Coatings with Excellent Liquid Repellency (Adv. Mater. Interfaces) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.9	0