

# Moyuan Cao

## List of Publications by Year in descending order

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Version: 2024-02-01

63  
papers

4,766  
citations

117625

34  
h-index

114465

63  
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65  
all docs

65  
docs citations

65  
times ranked

4600  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully Superhydrophilic, Self-Floatable, and Multi-Contamination-Resistant Solar Steam Generator Inspired by Seaweed. <i>Engineering</i> , 2023, 20, 153-161.	6.7	10
2	Directional and Adaptive Oil Self-Transport on a Multi-Bioinspired Grooved Conical Spine. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	34
3	Bioinspired Anisotropic Slippery Cilia for Stiffness-Controllable Bubble Transport. <i>ACS Nano</i> , 2022, 16, 9348-9358.	14.6	19
4	An interfacial floating tumbler with a penetrable structure and Janus wettability inspired by <i>Pistia stratiotes</i> . <i>Materials Horizons</i> , 2022, 9, 1888-1895.	12.2	16
5	Zwitterionic functionalized catalytic evaporator enables simultaneous solar distillation and organic pollutant degradation. <i>Applied Energy</i> , 2022, 321, 119372.	10.1	11
6	Programmable droplet transport on multi-bioinspired slippery surface with tridirectionally anisotropic wettability. <i>Chemical Engineering Journal</i> , 2022, 449, 137831.	12.7	35
7	A hierarchical origami moisture collector with laser-textured microchannel array for a plug-and-play irrigation system. <i>Journal of Materials Chemistry A</i> , 2021, 9, 5630-5638.	10.3	29
8	Underwater Gas Manipulation: Designing Flexible but Tough Slippery Track for Underwater Gas Manipulation (Small 8/2021). <i>Small</i> , 2021, 17, 2170035.	10.0	0
9	Editorial: Superwetting Interfaces for Oil/Water Separation. <i>Frontiers in Chemistry</i> , 2021, 9, 667106.	3.6	2
10	Self-Propelled and Electrobraking Synergetic Liquid Manipulator toward Microsampling and Bioanalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 14741-14751.	8.0	17
11	Robust bio-inspired superhydrophilic and underwater superoleophobic membranes for simultaneously fast water and oil recovery. <i>Journal of Membrane Science</i> , 2021, 623, 119041.	8.2	62
12	Ultrahigh concentration, single-layer of graphene paste as conductive additive for lithium-ion battery. <i>Carbon Trends</i> , 2021, 5, 100104.	3.0	6
13	Zwitterionic hydrogel coated superhydrophilic hierarchical antifouling floater enables unimpeded interfacial steam generation and multi-contamination resistance in complex conditions. <i>Chemical Engineering Journal</i> , 2021, 421, 130344.	12.7	48
14	Designing Flexible but Tough Slippery Track for Underwater Gas Manipulation. <i>Small</i> , 2021, 17, e2007803.	10.0	35
15	A fishbone-inspired liquid splitter enables directional droplet transportation and spontaneous separation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9719-9728.	10.3	31
16	Smart Manipulation of Gas Bubbles in Harsh Environments Via a Fluorinert-Infused Shape-Gradient Slippery Surface. <i>Transactions of Tianjin University</i> , 2020, 26, 441-449.	6.4	12
17	A Multi-Bioinspired Dual-Gradient Electrode for Microbubble Manipulation toward Controllable Water Splitting. <i>Advanced Materials</i> , 2020, 32, e1908099.	21.0	69
18	Interfacial solar evaporation for water production: from structure design to reliable performance. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 419-432.	3.4	35

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19	Cactus kirigami for efficient fog harvesting: simplifying a 3D cactus into 2D paper art. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13452-13458.	10.3	104
20	Beetle-Inspired Hierarchical Antibacterial Interface for Reliable Fog Harvesting. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 34330-34337.	8.0	70
21	Unidirectional Liquid Manipulation Via an Integrated Mesh with Orthogonal Anisotropic Slippery Tracks. <i>Advanced Functional Materials</i> , 2019, 29, 1904446.	14.9	39
22	Random Organic Nanolaser Arrays for Cryptographic Primitives. <i>Advanced Materials</i> , 2019, 31, e1807880.	21.0	72
23	Surface-Embedding of Functional Micro-/Nanoparticles for Achieving Versatile Superhydrophobic Interfaces. <i>Matter</i> , 2019, 1, 661-673.	10.0	119
24	Bioinspired Slippery Cone for Controllable Manipulation of Gas Bubbles in Low-Surface-Tension Environment. <i>ACS Nano</i> , 2019, 13, 4083-4090.	14.6	68
25	Directional Transport: Bioinspired Continuous and Spontaneous Antigravity Oil Collection and Transportation ( <i>Adv. Funct. Mater.</i> 5/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870032.	14.9	8
26	One-step transformation of highly hydrophobic membranes into superhydrophilic and underwater superoleophobic ones for high-efficiency separation of oil-in-water emulsions. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3391-3396.	10.3	257
27	Unidirectional water delivery on a superhydrophilic surface with two-dimensional asymmetrical wettability barriers. <i>Materials Horizons</i> , 2018, 5, 303-308.	12.2	84
28	Bioinspired Pressure-Tolerant Asymmetric Slippery Surface for Continuous Self-Transport of Gas Bubbles in Aqueous Environment. <i>ACS Nano</i> , 2018, 12, 2048-2055.	14.6	155
29	Directional and Continuous Transport of Gas Bubbles on Superaerophilic Geometry-Gradient Surfaces in Aqueous Environments. <i>Advanced Functional Materials</i> , 2018, 28, 1705091.	14.9	78
30	Bioinspired Continuous and Spontaneous Antigravity Oil Collection and Transportation. <i>Advanced Functional Materials</i> , 2018, 28, 1704220.	14.9	30
31	A hierarchical hydrophilic/hydrophobic cooperative fog collector possessing self-pumped droplet delivering ability. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20966-20972.	10.3	91
32	Is Superhydrophobicity Equal to Underwater Superaerophilicity: Regulating the Gas Behavior on Superaerophilic Surface via Hydrophilic Defects. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 20995-21000.	8.0	35
33	Unidirectional Wetting Properties on Multi-Bioinspired Magnetocontrollable Slippery Microcilia. <i>Advanced Materials</i> , 2017, 29, 1606869.	21.0	183
34	Improved Interfacial Floatability of Superhydrophobic/Superhydrophilic Janus Sheet Inspired by Lotus Leaf. <i>Advanced Functional Materials</i> , 2017, 27, 1701466.	14.9	165
35	Bioinspired Ultrastrong Solid Electrolytes with Fast Proton Conduction along 2D Channels. <i>Advanced Materials</i> , 2017, 29, 1605898.	21.0	81
36	Manipulating Bubbles in Aqueous Environment via a Lubricant-Infused Slippery Surface. <i>Advanced Functional Materials</i> , 2017, 27, 1701605.	14.9	114

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37	Foolproof Method for Fast and Reversible Switching of Water-Droplet Adhesion by Magnetic Gradients. ACS Applied Materials & Interfaces, 2017, 9, 23238-23245.	8.0	32
38	Morphologyâ€Control Strategy of the Superhydrophobic Poly(Methyl Methacrylate) Surface for Efficient Bubble Adhesion and Wastewater Remediation. Advanced Functional Materials, 2017, 27, 1702020.	14.9	64
39	Spontaneous and Directional Transportation of Gas Bubbles on Superhydrophobic Cones. Advanced Functional Materials, 2016, 26, 3236-3243.	14.9	157
40	Superhydrophobic helix: controllable and directional bubble transport in an aqueous environment. Journal of Materials Chemistry A, 2016, 4, 16865-16870.	10.3	54
41	Aerophilic Electrode with Cone Shape for Continuous Generation and Efficient Collection of H <sub>2</sub> Bubbles. Advanced Functional Materials, 2016, 26, 6830-6835.	14.9	72
42	â€Plugâ€andâ€Coâ€Type Liquid Diode: Integrated Mesh with Janus Superwetting Properties. Advanced Materials Interfaces, 2016, 3, 1600276.	3.7	32
43	Superwettability integration: concepts, design and applications. Surface Innovations, 2016, 4, 180-194.	2.3	50
44	Water-Repellent Properties of Superhydrophobic and Lubricant-Infused â€Slipperyâ€Surfaces: A Brief Study on the Functions and Applications. ACS Applied Materials & Interfaces, 2016, 8, 3615-3623.	8.0	212
45	Superhydrophobic â€Pumpâ€ Continuous and Spontaneous Antigravity Water Delivery. Advanced Functional Materials, 2015, 25, 4114-4119.	14.9	111
46	Hydrophobic/Hydrophilic Cooperative Janus System for Enhancement of Fog Collection. Small, 2015, 11, 4379-4384.	10.0	232
47	Superhydrophobic â€Aspiratorâ€ Toward Dispersion and Manipulation of Micro/Nanoliter Droplets. Small, 2015, 11, 4491-4496.	10.0	34
48	Spear and Shield: Survival War between Mantis Shrimps and Abalones. Advanced Materials Interfaces, 2015, 2, 1500250.	3.7	17
49	Magnetically Induced Fog Harvesting via Flexible Conical Arrays. Advanced Functional Materials, 2015, 25, 5967-5971.	14.9	142
50	Floatable, Self-Cleaning, and Carbon-Black-Based Superhydrophobic Gauze for the Solar Evaporation Enhancement at the Airâ€Water Interface. ACS Applied Materials & Interfaces, 2015, 7, 13645-13652.	8.0	316
51	Ordered porous structure hybrid films generated by breath figures for directional water penetration. RSC Advances, 2015, 5, 88471-88476.	3.6	41
52	Bio-inspired humidity responsive switch for directional water droplet delivery. Journal of Materials Chemistry A, 2015, 3, 15540-15545.	10.3	42
53	Under-water unidirectional air penetration via a Janus mesh. Chemical Communications, 2015, 51, 11872-11875.	4.1	88
54	Direct Insight into the Threeâ€Dimensional Internal Morphology of Solidâ€Liquidâ€Vapor Interfaces at Microscale. Angewandte Chemie - International Edition, 2015, 54, 4792-4795.	13.8	25

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55	Multifunctional Engineering Aluminum Surfaces for Self-Propelled Anti-Condensation. <i>Advanced Engineering Materials</i> , 2015, 17, 961-968.	3.5	21
56	Fog Collection: Facile and Large-Scale Fabrication of a Cactus-Inspired Continuous Fog Collector (Adv.) <i>Tj ETQq</i> 14.9 0.0 rgBT <sub>5</sub> /Overlock	14.9	5
57	Preparation of a novel organo-soluble chitosan grafted polycaprolactone copolymer for drug delivery. <i>International Journal of Biological Macromolecules</i> , 2014, 65, 21-27.	7.5	22
58	Bio-Inspired Titanium Dioxide Materials with Special Wettability and Their Applications. <i>Chemical Reviews</i> , 2014, 114, 10044-10094.	47.7	489
59	Facile and Large-Scale Fabrication of a Cactus-Inspired Continuous Fog Collector. <i>Advanced Functional Materials</i> , 2014, 24, 3235-3240.	14.9	233
60	Soft-binding ligand-capped fluorescent CdSe/ZnS quantum dots for the facile labeling of polysaccharide-based self-assemblies. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 109, 154-160.	5.0	9
61	Synthesis of well-defined chitosan-based tricomponent copolymers for constructing multifunctional delivery systems. <i>Journal of Polymer Science Part A</i> , 2012, 50, 4936-4946.	2.3	6
62	A convenient scheme for synthesizing reduction-sensitive chitosan-based amphiphilic copolymers for drug delivery. <i>Journal of Applied Polymer Science</i> , 2012, 123, 3137-3144.	2.6	30
63	STUDIES ON ONE-STEP ELECTROSPINNING FOR PREPARING CROSSLINKED GELATIN FIBERS. <i>Acta Polymerica Sinica</i> , 2009, 009, 1157-1161.	0.0	4