

Mingjie Liu

List of Publications by Year in descending order

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104
papers

12,535
citations

41323

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26591

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all docs

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docs citations

110
times ranked

11013
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Superhydrophilic and Underwater Superoleophobic Hydrogel-Coated Mesh for Oil/Water Separation. <i>Advanced Materials</i> , 2011, 23, 4270-4273.	11.1	1,462
2	Nature-inspired superwettability systems. <i>Nature Reviews Materials</i> , 2017, 2, .	23.3	1,212
3	Bioinspired Design of a Superoleophobic and Low Adhesive Water/Solid Interface. <i>Advanced Materials</i> , 2009, 21, 665-669.	11.1	1,123
4	Bioinspired Super-antiwetting Interfaces with Special Liquid-Solid Adhesion. <i>Accounts of Chemical Research</i> , 2010, 43, 368-377.	7.6	575
5	Anti-freezing, Conductive Self-healing Organohydrogels with Stable Strain-sensitivity at Subzero Temperatures. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 14159-14163.	7.2	538
6	Thermoresponsive actuation enabled by permittivity switching in an electrostatically anisotropic hydrogel. <i>Nature Materials</i> , 2015, 14, 1002-1007.	13.3	530
7	An anisotropic hydrogel with electrostatic repulsion between cofacially aligned nanosheets. <i>Nature</i> , 2015, 517, 68-72.	13.7	440
8	Low Temperature Tolerant Organohydrogel Electrolytes for Flexible Solid-State Supercapacitors. <i>Advanced Energy Materials</i> , 2018, 8, 1801967.	10.2	288
9	Layered nanocomposites by shear-flow-induced alignment of nanosheets. <i>Nature</i> , 2020, 580, 210-215.	13.7	284
10	Adaptive and freeze-tolerant heteronetwork organohydrogels with enhanced mechanical stability over a wide temperature range. <i>Nature Communications</i> , 2017, 8, 15911.	5.8	266
11	Bioinspired Nanocomposite Hydrogels with Highly Ordered Structures. <i>Advanced Materials</i> , 2017, 29, 1703045.	11.1	266
12	Bio-inspired Hierarchical Macromolecule-Nanoclay Hydrogels for Robust Underwater Superoleophobicity. <i>Advanced Materials</i> , 2010, 22, 4826-4830.	11.1	262
13	Corrosion-Resistant Superhydrophobic Coatings on Mg Alloy Surfaces Inspired by Lotus Seedpod. <i>Advanced Functional Materials</i> , 2017, 27, 1605446.	7.8	243
14	Confined Synthesis of Two-Dimensional Covalent Organic Framework Thin Films within Superspreading Water Layer. <i>Journal of the American Chemical Society</i> , 2018, 140, 12152-12158.	6.6	231
15	Filefish-Inspired Surface Design for Anisotropic Underwater Oleophobicity. <i>Advanced Functional Materials</i> , 2014, 24, 809-816.	7.8	220
16	Recent developments in polymeric superoleophobic surfaces. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 1209-1224.	2.4	219
17	Conductive Hydrogels as Smart Materials for Flexible Electronic Devices. <i>Chemistry - A European Journal</i> , 2018, 24, 16930-16943.	1.7	215
18	Water-Repellent Properties of Superhydrophobic and Lubricant-Infused "Slippery" Surfaces: A Brief Study on the Functions and Applications. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3615-3623.	4.0	212

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19	Antiplatelet and Thermally Responsive Poly(<i>N</i> -isopropylacrylamide) Surface with Nanoscale Topography. <i>Journal of the American Chemical Society</i> , 2009, 131, 10467-10472.	6.6	192
20	Organogel-based Thin Films for Self-cleaning on Various Surfaces. <i>Advanced Materials</i> , 2013, 25, 4477-4481.	11.1	183
21	Designing Bioinspired Anti-biofouling Surfaces based on a Superwettability Strategy. <i>Small</i> , 2017, 13, 1503334.	5.2	165
22	Thermal-responsive hydrogel surface: tunable wettability and adhesion to oil at the water/solid interface. <i>Soft Matter</i> , 2010, 6, 2708.	1.2	153
23	Complex multiphase organohydrogels with programmable mechanics toward adaptive soft-matter machines. <i>Science Advances</i> , 2020, 6, eaax1464.	4.7	139
24	A Urease-containing Fluorescent Hydrogel for Transient Information Storage. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 3640-3646.	7.2	137
25	Highly Stretchable, Shape Memory Organohydrogels Using Phase-transition Microinclusions. <i>Advanced Materials</i> , 2017, 29, 1701695.	11.1	136
26	Heterogeneous Fluorescent Organohydrogel Enables Dynamic Anti-counterfeiting. <i>Advanced Functional Materials</i> , 2021, 31, 2108365.	7.8	114
27	Controllable Underwater Oil-adhesion Interface Films Assembled from Nonspherical Particles. <i>Advanced Functional Materials</i> , 2011, 21, 4436-4441.	7.8	96
28	PANI nanowire film with underwater superoleophobicity and potential-modulated tunable adhesion for no loss oil droplet transport. <i>Soft Matter</i> , 2012, 8, 9064.	1.2	94
29	Biphasic Synergistic Gel Materials with Switchable Mechanics and Self-healing Capacity. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 13464-13469.	7.2	92
30	Dual-programmable Shape-morphing and Self-healing Organohydrogels Through Orthogonal Supramolecular Heteronetworks. <i>Advanced Materials</i> , 2018, 30, e1804435.	11.1	91
31	An underwater pH-responsive superoleophobic surface with reversibly switchable oil-adhesion. <i>Soft Matter</i> , 2012, 8, 6740.	1.2	89
32	In Situ Fully Light-driven Switching of Superhydrophobic Adhesion. <i>Advanced Functional Materials</i> , 2012, 22, 760-763.	7.8	86
33	Imparting Functionality to the Hydrogel by Magnetic-Field-Induced Nano-assembly and Macro-response. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 5177-5194.	4.0	80
34	Macroscopic Layered Organogel-Hydrogel Hybrids with Controllable Wetting and Swelling Performance. <i>Advanced Functional Materials</i> , 2018, 28, 1800793.	7.8	76
35	High-speed transport of liquid droplets in magnetic tubular microactuators. <i>Science Advances</i> , 2018, 4, eaau8767.	4.7	72
36	Bioinspired multiscale surfaces with special wettability. <i>MRS Bulletin</i> , 2013, 38, 375-382.	1.7	71

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37	Self- <i>Replenishable Anti-Waxing Organogel Materials</i> . <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8975-8979.	7.2	71
38	A monolithic hydro/organo macro copolymer actuator synthesized via interfacial copolymerization. <i>NPG Asia Materials</i> , 2017, 9, e380-e380.	3.8	71
39	Light-controlled quick switch of adhesion on a micro-arrayed liquid crystal polymer superhydrophobic film. <i>Soft Matter</i> , 2012, 8, 3730.	1.2	66
40	Hierarchical structures hydrogel evaporator and superhydrophilic water collect device for efficient solar steam evaporation. <i>Nano Research</i> , 2021, 14, 1135-1140.	5.8	65
41	Superspreading on Immersed Gel Surfaces for the Confined Synthesis of Thin Polymer Films. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 3615-3619.	7.2	64
42	A Flexible and Safe Aqueous Zinc-Air Battery with a Wide Operating Temperature Range from ~ 20 to 70 $^{\circ}\text{C}$. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 11501-11511.	3.2	63
43	Superhydrophobic Diffusion Barriers for Hydrogels via Confined Interfacial Modification. <i>Advanced Materials</i> , 2016, 28, 7383-7389.	11.1	61
44	Dialectics of nature in materials science: binary cooperative complementary materials. <i>Science China Materials</i> , 2016, 59, 239-246.	3.5	59
45	Ultrahigh energy-dissipation elastomers by precisely tailoring the relaxation of confined polymer fluids. <i>Nature Communications</i> , 2021, 12, 3610.	5.8	58
46	Recent Advances in Bioinspired Gel Surfaces with Superwettability and Special Adhesion. <i>Advanced Science</i> , 2019, 6, 1900996.	5.6	57
47	Interfacial Engineering of Hierarchically Porous NiTi/Hydrogels Nanocomposites with Exceptional Antibiofouling Surfaces. <i>Advanced Materials</i> , 2017, 29, 1602869.	11.1	56
48	Anisotropically Luminescent Hydrogels Containing Magnetically-Aligned MWCNTs-Eu(III) Hybrids. <i>Advanced Materials</i> , 2013, 25, 2462-2467.	11.1	54
49	Adaptive Superamphiphilic Organohydrogels with Reconfigurable Surface Topography for Programming Unidirectional Liquid Transport. <i>Advanced Functional Materials</i> , 2019, 29, 1807858.	7.8	54
50	Shape and stiffness memory ionogels with programmable pressure-resistance response. <i>Nature Communications</i> , 2022, 13, 1743.	5.8	54
51	Reversibly Thermosecreting Organogels with Switchable Lubrication and Anti-icing Performance. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 11876-11880.	7.2	53
52	Spontaneous Direct Band Gap, High Hole Mobility, and Huge Exciton Energy in Atomic-Thin TiO_2 Nanosheet. <i>Chemistry of Materials</i> , 2018, 30, 6449-6457.	3.2	50
53	Recent Progress of Biomimetic Antifouling Surfaces in Marine. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000966.	1.9	50
54	Interphase in Polymer Nanocomposites. <i>Jacs Au</i> , 2022, 2, 280-291.	3.6	49

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55	Anti-Freezing multiphase gel materials: Bioinspired design strategies and applications. <i>Giant</i> , 2020, 2, 100014.	2.5	44
56	Integration of hydrogels with functional nanoparticles using hydrophobic comb-like polymers as an adhesive layer. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15147-15153.	5.2	43
57	Surface Wetting in Liquid-Liquid-Solid Triphase Systems: Solid-Phase-Independent Transition at the Liquid-Liquid Interface by Lewis Acid-Base Interactions. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 8348-8351.	7.2	41
58	Anti-Freezing, Conductive Self-Healing Organohydrogels with Stable Strain-Sensitivity at Subzero Temperatures. <i>Angewandte Chemie</i> , 2017, 129, 14347-14351.	1.6	39
59	Covalent tethering of photo-responsive superficial layers on hydrogel surfaces for photo-controlled release. <i>Chemical Science</i> , 2017, 8, 2010-2016.	3.7	35
60	Anisotropic nanocomposite hydrogels with enhanced actuating performance through aligned polymer networks. <i>Science China Materials</i> , 2020, 63, 832-841.	3.5	34
61	Protonated Iridate Nanosheets with a Highly Active and Stable Layered Perovskite Framework for Acidic Oxygen Evolution. <i>ACS Catalysis</i> , 2022, 12, 8658-8666.	5.5	34
62	Diffusion-Freezing-Induced Microphase Separation for Constructing Large-Area Multiscale Structures on Hydrogel Surfaces. <i>Advanced Materials</i> , 2019, 31, e1808217.	11.1	32
63	Bioinspired Interfacial Materials: From Binary Cooperative Complementary Interfaces to Superwettability Systems. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701176.	1.9	28
64	Macroporous Conductive Hydrogels with Fatigue Resistance as Strain Sensor for Human Motion Monitoring. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1800339.	1.7	27
65	Plastic-like Hydrogels with Reversible Conversion of Elasticity and Plasticity and Tunable Mechanical Properties. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41659-41667.	4.0	27
66	Nonswellable hydrogels with robust micro/nano-structures and durable superoleophobic surfaces under seawater. <i>Science China Chemistry</i> , 2018, 61, 64-70.	4.2	25
67	Self-recoverable semi-crystalline hydrogels with thermomechanics and shape memory performance. <i>Science China Materials</i> , 2019, 62, 586-596.	3.5	24
68	Euryhaline Hydrogel with Constant Swelling and Salinity-Enhanced Mechanical Strength in a Wide Salinity Range. <i>Advanced Functional Materials</i> , 2021, 31, 2007664.	7.8	23
69	Conductive, sensing stable and mechanical robust silicone rubber composites for large-strain sensors. <i>Polymer Composites</i> , 2021, 42, 6394-6402.	2.3	20
70	Superspreading-Based Fabrication of Asymmetric Porous PAA-g-PVDF Membranes for Efficient Water Flow Gating. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600615.	1.9	19
71	Manipulating the hydrophobicity of DNA as a universal strategy for visual biosensing. <i>Nature Protocols</i> , 2020, 15, 316-337.	5.5	19
72	Tuning Transition Properties of Stimuli-Responsive Brushes by Polydispersity. <i>Advanced Functional Materials</i> , 2018, 28, 1800745.	7.8	18

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73	Biphasic Synergistic Gel Materials with Switchable Mechanics and Self-Healing Capacity. <i>Angewandte Chemie</i> , 2017, 129, 13649-13654.	1.6	17
74	General Strategy to Fabricate Highly Filled Microcomposite Hydrogels with High Mechanical Strength and Stiffness. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4161-4167.	4.0	17
75	Anisotropic thermoresponsive hydrogels by mechanical force orientation of clay nanosheets. <i>Polymer</i> , 2020, 192, 122309.	1.8	17
76	Superspreading on Immersed Gel Surfaces for the Confined Synthesis of Thin Polymer Films. <i>Angewandte Chemie</i> , 2016, 128, 3679-3683.	1.6	15
77	A Urease-Containing Fluorescent Hydrogel for Transient Information Storage. <i>Angewandte Chemie</i> , 2021, 133, 3684-3690.	1.6	15
78	Amphiphilic Pd@micro-organohydrogels with controlled wettability for enhancing gas-liquid-solid triphasic catalytic performance. <i>Nano Research</i> , 2022, 15, 557-563.	5.8	15
79	An orthogonal dual-regulation strategy for sensitive biosensing applications. <i>National Science Review</i> , 2022, 9, .	4.6	13
80	Bioinspired functional organohydrogels with synergistic multiphases heterostructure. <i>Polymer</i> , 2020, 190, 122214.	1.8	12
81	Controlling the evaporation lifetimes of sessile droplets on superhydrophobic paper by simple stretching. <i>RSC Advances</i> , 2016, 6, 12862-12867.	1.7	11
82	Super-tough and strong nanocomposite fibers by flow-induced alignment of carbon nanotubes on grooved hydrogel surfaces. <i>Science China Materials</i> , 2019, 62, 1332-1340.	3.5	11
83	Design of Nanoparticle Systems by Controllable Assembly and Temporal/Spatial Regulation. <i>Advanced Functional Materials</i> , 2020, 30, 1903351.	7.8	11
84	Intrinsically anti-freezing and anti-dehydration hydrogel for multifunctional wearable sensors. <i>Science China Materials</i> , 2022, 65, 1980-1986.	3.5	11
85	Fluorescence microscopic visualization of functionalized hydrogels. <i>NPG Asia Materials</i> , 2022, 14, .	3.8	11
86	Improving stability of mechanical properties for nitrile butadiene rubber composite by carbon nanotube with antioxidant loading distribution. <i>Polymer Composites</i> , 2019, 40, E1172.	2.3	10
87	Heteronetwork organohydrogels with exceptional swelling-resistance and adaptive antifouling performance. <i>Polymer Chemistry</i> , 2020, 11, 68-74.	1.9	9
88	Semi-Egg-Like Heterogeneous Compartmentalization of Cells Controlled by Contact Angle Hysteresis. <i>Advanced Functional Materials</i> , 2015, 25, 4506-4511.	7.8	8
89	Improving Elasticity of Conductive Silicone Rubber by Hollow Carbon Black. <i>Chemical Research in Chinese Universities</i> , 2019, 35, 1124-1132.	1.3	8
90	Oleophobicity: Filefish-Inspired Surface Design for Anisotropic Underwater Oleophobicity (Adv.) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62</i>	7.8	6

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91	Improved mechanical properties and thermal degradation of low-temperature hydrogenated acrylonitrile butadiene rubber composites with poly(sodium methacrylate) nanowires. RSC Advances, 2016, 6, 64110-64120.	1.7	6
92	Reversibly Thermosecreting Organogels with Switchable Lubrication and Anti-icing Performance. Angewandte Chemie, 2020, 132, 11974-11978.	1.6	6
93	Magnetic-programmable organohydrogels with reconfigurable network for mechanical homeostasis. Nano Research, 2021, 14, 255-259.	5.8	6
94	Multiple network organohydrogels with high strength and anti-swelling properties in different solvents. Giant, 2021, 6, 100058.	2.5	6
95	Improved understanding on the reinforcement of low-temperature hydrogenated nitrile butadiene rubber composites by in situ polymerization of unsaturated metal methacrylate: influences of salt cation. RSC Advances, 2016, 6, 104416-104424.	1.7	5
96	Fabrication of Elastic Macroporous Polymers with Enhanced Oil Absorbability and Antiwaxing Performance. Langmuir, 2020, 36, 10794-10802.	1.6	5
97	Hydrodynamic pressure sensors with tunable sensitivity based on thermoresponsive hydrogels. Journal of Applied Polymer Science, 2021, 138, 50023.	1.3	5
98	Advances in Bioinspired Interfacial Materials with Superwettability. Small, 2017, 13, 1604106.	5.2	4
99	Mechanically Robust and Broadband Blackbody Composite Films Based on Self-Assembled Layered Structures. Chemistry - an Asian Journal, 2020, 15, 1436-1439.	1.7	4
100	Highly Selective Semihydrogenation via a Wettability-Regulated Mass Transfer Process. ACS Catalysis, 2022, 12, 8494-8502.	5.5	4
101	Frontispiece: Conductive Hydrogels as Smart Materials for Flexible Electronic Devices. Chemistry - A European Journal, 2018, 24, .	1.7	2
102	Thermal decomposition kinetics and mechanism of low-temperature hydrogenated acrylonitrile butadiene rubber composites with sodium methacrylate. Chemical Research in Chinese Universities, 2016, 32, 1045-1051.	1.3	1
103	Corrosion Resistance: Corrosion-Resistant Superhydrophobic Coatings on Mg Alloy Surfaces Inspired by Lotus Seedpod (Adv. Funct. Mater. 8/2017). Advanced Functional Materials, 2017, 27, .	7.8	1
104	Regulation of Nanomaterials: Design of Nanoparticle Systems by Controllable Assembly and Temporal/Spatial Regulation (Adv. Funct. Mater. 2/2020). Advanced Functional Materials, 2020, 30, 2070011.	7.8	0