

# Jiayi Cui

## List of Publications by Year in descending order

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92  
papers

4,742  
citations

101543

36  
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98798

67  
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93  
all docs

93  
docs citations

93  
times ranked

5761  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface charge printing for programmed droplet transport. <i>Nature Materials</i> , 2019, 18, 936-941.	27.5	401
2	Extremely Stretchable and Fast Self-Healing Hydrogels. <i>Advanced Materials</i> , 2016, 28, 4678-4683.	21.0	394
3	Multivalent H-bonds for self-healing hydrogels. <i>Chemical Communications</i> , 2012, 48, 9302.	4.1	308
4	Dynamic polymer systems with self-regulated secretion for the control of surface properties and material healing. <i>Nature Materials</i> , 2015, 14, 790-795.	27.5	237
5	Bioinspired Underwater Bonding and Debonding on Demand. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4332-4335.	13.8	171
6	Self-Hydrophobization in a Dynamic Hydrogel for Creating Nonspecific Repeatable Underwater Adhesion. <i>Advanced Functional Materials</i> , 2020, 30, 1907064.	14.9	159
7	Earthworm-Inspired Rough Polymer Coatings with Self-Replenishing Lubrication for Adaptive Friction-Reduction and Antifouling Surfaces. <i>Advanced Materials</i> , 2018, 30, e1802141.	21.0	133
8	Switchable Cavitation in Silicone Coatings for Energy-Saving Cooling and Heating. <i>Advanced Materials</i> , 2020, 32, e2000870.	21.0	132
9	Development of a Liquid-like Copolymer Nanocoatings for Reactive Oil-Repellent Surface. <i>ACS Nano</i> , 2017, 11, 2248-2256.	14.6	130
10	Bioinspired Actuated Adhesive Patterns of Liquid Crystalline Elastomers. <i>Advanced Materials</i> , 2012, 24, 4601-4604.	21.0	110
11	Anisotropic tough multilayer hydrogels with programmable orientation. <i>Materials Horizons</i> , 2019, 6, 1504-1511.	12.2	106
12	High-Performance pH-Switchable Supramolecular Thermosets via Cation- $\pi$ Interactions. <i>Advanced Materials</i> , 2018, 30, 1704234.	21.0	105
13	Tuning the Helicity of Self-Assembled Structure of a Sugar-Based Organogelator by the Proper Choice of Cooling Rate. <i>Langmuir</i> , 2010, 26, 3615-3622.	3.5	94
14	Antibacterial Strategies from the Sea: Polymer-Bound Catechols for Prevention of Biofilm Formation. <i>Advanced Materials</i> , 2013, 25, 529-533.	21.0	92
15	Multiresponsive polymeric microstructures with encoded predetermined and self-regulated deformability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12950-12955.	7.1	91
16	Multifunctional poly(disulfide) hydrogels with extremely fast self-healing ability and degradability. <i>Chemical Engineering Journal</i> , 2020, 394, 124941.	12.7	72
17	Light-Triggered Multifunctionality at Surfaces Mediated by Photolabile Protecting Groups. <i>Macromolecular Rapid Communications</i> , 2013, 34, 310-329.	3.9	69
18	Dynamic siloxane materials: From molecular engineering to emerging applications. <i>Chemical Engineering Journal</i> , 2021, 405, 127023.	12.7	69

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19	Hydrogels with superior mechanical properties from the synergistic effect in hydrophobic-hydrophilic copolymers. <i>Chemical Engineering Journal</i> , 2019, 362, 325-338.	12.7	67
20	Photoswitchable ultrahigh-brightness red fluorescent polymeric nanoparticles for information encryption, anti-counterfeiting and bioimaging. <i>Journal of Materials Chemistry C</i> , 2019, 7, 11515-11521.	5.5	57
21	Odd-Even Effect in Free Radical Polymerization of Optically Active 2,5-Bis[(4-alkoxycarbonyl)-phenyl]styrene. <i>Macromolecules</i> , 2008, 41, 1594-1597.	4.8	56
22	From a Molecular Toolbox to a Toolbox for Photoswitchable Fluorescent Polymeric Nanoparticles. <i>Advanced Functional Materials</i> , 2018, 28, 1804759.	14.9	56
23	Dual photochromics-contained photoswitchable multistate fluorescent polymers for advanced optical data storage, encryption, and photowritable pattern. <i>Chemical Engineering Journal</i> , 2021, 425, 131557.	12.7	56
24	Conductive Tough Hydrogels with a Staggered Ion-Coordinating Structure for High Self-Recovery Rate. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 24598-24608.	8.0	55
25	Study on the Gel to Crystal Transition of a Novel Sugar-Appended Gelator. <i>Langmuir</i> , 2010, 26, 97-103.	3.5	54
26	Double-Hydrophobic-Coating through Quenching for Hydrogels with Strong Resistance to Both Drying and Swelling. <i>Advanced Science</i> , 2020, 7, 1903145.	11.2	54
27	Long-Range Chirality Transfer in Free Radical Polymerization of Bulky Vinyl Monomers Containing Laterally Attached <i>p</i> -Terphenyl Groups. <i>Macromolecules</i> , 2009, 42, 7678-7688.	4.8	53
28	Synthesis and characterization of a thermotropic liquid-crystalline poly[2,5-bis(4-alkoxycarbonylphenyl) styrene]. <i>Journal of Polymer Science Part A</i> , 2007, 45, 830-847.	2.3	50
29	Dynamically Actuated Liquid-Infused Poroelastic Film with Precise Control over Droplet Dynamics. <i>Advanced Functional Materials</i> , 2018, 28, 1802632.	14.9	46
30	Phototunable Response in Caged Polymer Brushes. <i>Macromolecules</i> , 2012, 45, 3213-3220.	4.8	43
31	Polymer Brushes with Phototriggered and Phototunable Swelling and pH Response. <i>Macromolecular Rapid Communications</i> , 2011, 32, 1699-1703.	3.9	42
32	Solvent-tuned multiple self-assembly of a new sugar-appended gelator. <i>Journal of Colloid and Interface Science</i> , 2008, 326, 267-274.	9.4	41
33	Alkoxy Tail Length Dependence of Gelation Ability and Supramolecular Chirality of Sugar-Appended Organogelators. <i>Langmuir</i> , 2010, 26, 15508-15515.	3.5	41
34	New Photolabile BAPTA-Based Ca <sup>2+</sup> Cages with Improved Photorelease. <i>Journal of the American Chemical Society</i> , 2012, 134, 7733-7740.	13.7	39
35	Synthesis and Chiroptical Properties of Vinyl Polymers Containing Laterally Attached 4,4'-Digalactosyloxy- <i>p</i> -terphenyl Side Groups. <i>Macromolecules</i> , 2008, 41, 5245-5254.	4.8	38
36	Light-Triggered Cross-Linking of Alginates with Caged Ca <sup>2+</sup> . <i>Biomacromolecules</i> , 2013, 14, 1251-1256.	5.4	38

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37	Enantiomer-selective magnetization of conglomerates for quantitative chiral separation. <i>Nature Communications</i> , 2019, 10, 1964.	12.8	38
38	Synthesis and characterization of optically active helical vinyl polymers via free radical polymerization. <i>Journal of Polymer Science Part A</i> , 2009, 47, 2408-2421.	2.3	37
39	Dopamine-Based Coatings and Hydrogels: Toward Substitution-Related Structure-Property Relationships. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 2403-2413.	2.2	36
40	Light-regulated growth from dynamic swollen substrates for making rough surfaces. <i>Nature Communications</i> , 2020, 11, 963.	12.8	36
41	Thermotropic and Chiroptical Properties of Poly{(+)2,5-bis[4-( <i>S</i> -2-methylbutoxy)phenyl]styrene} and Its Random Copolymer with Polystyrene. <i>Macromolecules</i> , 2007, 40, 8233-8243.	4.8	34
42	Single-dye-doped fluorescent nanoprobe enables self-referenced ratiometric imaging of hypochlorous acid in lysosomes. <i>Sensors and Actuators B: Chemical</i> , 2020, 304, 127299.	7.8	34
43	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10681-10685.	13.8	33
44	Thermoresponsive Mobile Interfaces with Switchable Wettability, Optical Properties, and Penetrability. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 35483-35491.	8.0	33
45	Omni-Liquid Droplet Manipulation Platform. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900653.	3.7	33
46	Near-infrared electrochromic and chiroptical switching polymers: synthesis and characterization of helical poly(N-propargylamides) carrying anthraquinone imide moieties in side chains. <i>Journal of Materials Chemistry</i> , 2010, 20, 5915.	6.7	31
47	Hydrogen bonding of helical vinyl polymers containing alanine moieties: a stabilized interaction of helical conformation sensitive to solvents and pH. <i>Polymer Chemistry</i> , 2012, 3, 668.	3.9	31
48	Reversibly Photoswitchable Tristate Fluorescence within a Single Polymeric Nanoparticle. <i>Advanced Optical Materials</i> , 2021, 9, 2101227.	7.3	30
49	Self-Reporting Inhibitors: A Single Crystallization Process To Obtain Two Optically Pure Enantiomers. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 8120-8124.	13.8	29
50	Rational design of ratiometric and lysosome-targetable AIE dots for imaging endogenous HClO in live cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 203-208.	5.9	29
51	Hydrogel bowls for cleaning oil spills on water. <i>Water Research</i> , 2018, 145, 640-649.	11.3	28
52	2-Ureido-4-Pyrimidone-Based Hydrogels with Multiple Responses. <i>ChemPhysChem</i> , 2013, 14, 2932-2938.	2.1	25
53	Physical entanglement hydrogels: ultrahigh water content but good toughness and stretchability. <i>Polymer Chemistry</i> , 2020, 11, 2339-2345.	3.9	24
54	Self-Healable and Recyclable Tactile Force Sensors with Post-Tunable Sensitivity. <i>Advanced Functional Materials</i> , 2020, 30, 2003533.	14.9	23

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55	Switchable single fluorescent polymeric nanoparticles for stable white-light generation. <i>Journal of Materials Chemistry C</i> , 2018, 6, 9897-9902.	5.5	21
56	Slippery Passive Radiative Cooling Supramolecular Siloxane Coatings. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 4571-4578.	8.0	21
57	When Ultimate Adhesive Mechanism Meets Ultimate Anti-Fouling Surfaces? Polydopamine Versus SLIPS: Which One Prevails?. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000876.	3.7	20
58	Phototriggered Growth and Detachment of Polymer Brushes with Wavelength Selectivity. <i>ACS Macro Letters</i> , 2018, 7, 239-243.	4.8	19
59	Thermomagneto-Responsive Smart Biocatalysts for Malonyl-Coenzyme A Synthesis. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 20982-20990.	8.0	19
60	Photo-induced helix-helix transition of a polystyrene derivative. <i>Polymer Chemistry</i> , 2014, 5, 718-721.	3.9	17
61	Goosebumps-Inspired Microgel Patterns with Switchable Adhesion and Friction. <i>Small</i> , 2019, 15, 1902376.	10.0	17
62	Selective ratiometric fluorescence detection of hypochlorite by using aggregation-induced emission dots. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 1979-1988.	3.7	17
63	Steric Interaction between Flexible Main Chain and Nonmesogenic Cyclic Pendants Leading to Thermotropic Liquid Crystalline Property. <i>Macromolecules</i> , 2010, 43, 8942-8949.	4.8	15
64	Phototunable Surface Interactions. <i>Langmuir</i> , 2013, 29, 12138-12144.	3.5	15
65	Optically active helical vinylbiphenyl polymers with reversible thermally induced stereomutation. <i>Polymer Chemistry</i> , 2016, 7, 3134-3144.	3.9	15
66	Macroscopic Self-Evolution of Dynamic Hydrogels to Create Hollow Interiors. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5611-5615.	13.8	14
67	A rational design of a cancer-specific and lysosome-targeted fluorescence nanoprobe for glutathione imaging in living cells. <i>Materials Advances</i> , 2020, 1, 1739-1744.	5.4	14
68	Preparation and application of multi-wavelength-regulated multi-state photoswitchable fluorescent polymer nanoparticles. <i>Dyes and Pigments</i> , 2022, 197, 109919.	3.7	14
69	Synthesis and Characterization of Branched Mesogen-Jacketed Liquid Crystal Polymers Based on 2,5-Bis[(4-methoxyphenyl)oxycarbonyl]styrene and 4-Chloromethylstyrene. <i>Macromolecules</i> , 2008, 41, 1264-1272.	4.8	13
70	Multistimuli Responsive Liquid-Release in Dynamic Polymer Coatings for Controlling Surface Slipperiness and Optical Performance. <i>Advanced Materials Interfaces</i> , 2019, 6, 1901028.	3.7	13
71	Universal, Surfactant-Free Preparation of Hydrogel Beads on Superamphiphobic and Slippery Surfaces. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701536.	3.7	12
72	Four and a Half LIM Domains 1b (Fhl1b) Is Essential for Regulating the Liver versus Pancreas Fate Decision and for $\beta$ -Cell Regeneration. <i>PLoS Genetics</i> , 2016, 12, e1005831.	3.5	11

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73	Growing Strategy for Postmodifying Cross-Linked Polymers <sup>TM</sup> Bulky Size, Shape, and Mechanical Properties. ACS Applied Materials & Interfaces, 2022, 14, 8473-8481.	8.0	11
74	Nonequilibrium Transesterification for Programming a Material <sup>TM</sup> s Stiffening. ACS Applied Polymer Materials, 2019, 1, 3227-3232.	4.4	10
75	Folding fluorescent probes for self-reporting transesterification in dynamic polymer networks. Materials Horizons, 2021, 8, 1481-1487.	12.2	10
76	Damage restoration in rigid materials <i>via</i> a keloid-inspired growth process. Journal of Materials Chemistry A, 2021, 10, 174-179.	10.3	9
77	Aptamer functionalization and high-contrast reversible dual-color photoswitching fluorescence of polymeric nanoparticles for latent fingerprints imaging. Sensors and Actuators B: Chemical, 2022, 367, 132049.	7.8	9
78	Thermo-responsive recoverable polymeric inhibitors for the resolution of racemic amino acids. Chemical Communications, 2018, 54, 2785-2787.	4.1	8
79	Self-Reporting Inhibitors: A Single Crystallization Process To Obtain Two Optically Pure Enantiomers. Angewandte Chemie, 2018, 130, 8252-8256.	2.0	8
80	Switchable Cavitation: Switchable Cavitation in Silicone Coatings for Energy-Saving Cooling and Heating (Adv. Mater. 29/2020). Advanced Materials, 2020, 32, 2070215.	21.0	8
81	Analysis of Responsive Polymer Films Using Surface Acoustic Waves. Langmuir, 2013, 29, 6582-6587.	3.5	7
82	Photoinduced Strain-Assisted Synthesis of a Stiff-Stilbene Polymer by Ring-Opening Metathesis Polymerization. Chemistry - A European Journal, 2020, 26, 14828-14832.	3.3	7
83	Polymeric Microparticles Generated via Confinement-Free Fluid Instability. Advanced Materials, 2021, 33, e2007154.	21.0	7
84	Anisotropic Mechano-Adaptive Cavitation in Elastomer for Unclonable Covert-Overt Anti-counterfeiting. Journal of Materials Chemistry C, 0, , .	5.5	7
85	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. Angewandte Chemie, 2016, 128, 10839-10843.	2.0	5
86	Self-Forming Interlocking Interfaces on the Immiscible Polymer Bilayers via Gelation-Mediated Phase Separation. Macromolecular Rapid Communications, 2017, 38, 1700206.	3.9	5
87	Droplets Self-Born in the Dynamic Polymer for Generating Functional Coatings. ACS Applied Materials & Interfaces, 2020, 12, 39657-39664.	8.0	5
88	Perylene diimide-based supramolecular polymer with temperature-sensitive ratiometric fluorescence responsiveness in solution and gels. Materials Advances, 2020, 1, 1330-1336.	5.4	5
89	Programming Hydrogels with Complex Transient Behaviors via Autocatalytic Cascade Reactions. ACS Applied Materials & Interfaces, 2022, 14, 20073-20082.	8.0	5
90	Macroscopic Self-Evolution of Dynamic Hydrogels to Create Hollow Interiors. Angewandte Chemie, 2020, 132, 5660-5664.	2.0	3

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91	Click functionalization of phenyl-capped bithiophene on azide-terminated self-assembled monolayers. <i>Applied Surface Science</i> , 2015, 355, 213-217.	6.1	2
92	Bio-inspired semi-infused adaptive surface with reconfigurable topography for on-demand droplet manipulation. <i>Materials Chemistry Frontiers</i> , 2021, 5, 5382-5389.	5.9	1