

# Qiao Zhao

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99  
papers

5,792  
citations

36  
h-index

75  
g-index

104  
ext. papers

7,116  
ext. citations

10.8  
avg, IF

6.48  
L-index

#	Paper	IF	Citations
99	Recent progress in shape memory polymer: New behavior, enabling materials, and mechanistic understanding. <i>Progress in Polymer Science</i> , <b>2015</b> , 49-50, 79-120	29.6	821
98	Dynamic Covalent Polymer Networks: from Old Chemistry to Modern Day Innovations. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606100	24	473
97	Thermoset Shape-Memory Polyurethane with Intrinsic Plasticity Enabled by Transcarbamylation. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 11421-5	16.4	341
96	Shape memory polymer network with thermally distinct elasticity and plasticity. <i>Science Advances</i> , <b>2016</b> , 2, e1501297	14.3	316
95	Ultrafast Digital Printing toward 4D Shape Changing Materials. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605390	24	288
94	Programming a crystalline shape memory polymer network with thermo- and photo-reversible bonds toward a single-component soft robot. <i>Science Advances</i> , <b>2018</b> , 4, eaao3865	14.3	255
93	Biomimetic Architected Graphene Aerogel with Exceptional Strength and Resilience. <i>ACS Nano</i> , <b>2017</b> , 11, 6817-6824	16.7	214
92	Supramolecular Lego assembly towards three-dimensional multi-responsive hydrogels. <i>Advanced Materials</i> , <b>2014</b> , 26, 5665-9	24	183
91	Exploring Dynamic Equilibrium of Diels-Alder Reaction for Solid State Plasticity in Remoldable Shape Memory Polymer Network. <i>ACS Macro Letters</i> , <b>2016</b> , 5, 805-808	6.6	159
90	Catalyst-Free Thermoset Polyurethane with Permanent Shape Reconfigurability and Highly Tunable Triple-Shape Memory Performance. <i>ACS Macro Letters</i> , <b>2017</b> , 6, 326-330	6.6	154
89	Dynamic Covalent Polymer Networks: A Molecular Platform for Designing Functions beyond Chemical Recycling and Self-Healing. <i>Chemical Reviews</i> , <b>2021</b> , 121, 1716-1745	68.1	152
88	Healable, Reconfigurable, Reprocessable Thermoset Shape Memory Polymer with Highly Tunable Topological Rearrangement Kinetics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 22077-22082	9.5	129
87	High strain epoxy shape memory polymer. <i>Polymer Chemistry</i> , <b>2015</b> , 6, 3046-3053	4.9	129
86	Superstretchable Nacre-Mimetic Graphene/Poly(vinyl alcohol) Composite Film Based on Interfacial Architectural Engineering. <i>ACS Nano</i> , <b>2017</b> , 11, 4777-4784	16.7	117
85	Shape-memory polymers with multiple transitions: complex actively moving polymers. <i>Soft Matter</i> , <b>2013</b> , 9, 1744-1755	3.6	113
84	4D Printing: History and Recent Progress. <i>Chinese Journal of Polymer Science (English Edition)</i> , <b>2018</b> , 36, 563-575	3.5	102
83	Nacre-mimetic composite with intrinsic self-healing and shape-programming capability. <i>Nature Communications</i> , <b>2019</b> , 10, 800	17.4	94

82	A bioinspired reversible snapping hydrogel assembly. <i>Materials Horizons</i> , <b>2016</b> , 3, 422-428	14.4	84
81	Digital coding of mechanical stress in a dynamic covalent shape memory polymer network. <i>Nature Communications</i> , <b>2018</b> , 9, 4002	17.4	82
80	Preparation of poly(ethylene glycol) aligned porous cryogels using a unidirectional freezing technique. <i>Soft Matter</i> , <b>2012</b> , 8, 3620	3.6	69
79	4D Printing of a Digital Shape Memory Polymer with Tunable High Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 32408-32413	9.5	62
78	A Metallosupramolecular Shape-Memory Polymer with Gradient Thermal Plasticity. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 12599-12602	16.4	58
77	Rapid Open-Air Digital Light 3D Printing of Thermoplastic Polymer. <i>Advanced Materials</i> , <b>2019</b> , 31, e1903970	17.0	54
76	Synthesis of Thermo-Sensitive Nanocapsules via Inverse Miniemulsion Polymerization Using a PEORAFT Agent. <i>Macromolecules</i> , <b>2010</b> , 43, 568-571	5.5	54
75	Microwave absorbing properties of linear low density polyethylene/ethylene-butene copolymer composites filled with short carbon fiber. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2009</b> , 162, 162-166	3.1	50
74	Unusual Aspects of Supramolecular Networks: Plasticity to Elasticity, Ultrasoft Shape Memory, and Dynamic Mechanical Properties. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 931-937	15.6	49
73	Modular 4D Printing via Interfacial Welding of Digital Light-Controllable Dynamic Covalent Polymer Networks. <i>Matter</i> , <b>2020</b> , 2, 1187-1197	12.7	46
72	Light-triggered topological programmability in a dynamic covalent polymer network. <i>Science Advances</i> , <b>2020</b> , 6, eaaz2362	14.3	42
71	Macroporous double-network cryogels: formation mechanism, enhanced mechanical strength and temperature/pH dual sensitivity. <i>Soft Matter</i> , <b>2011</b> , 7, 4284	3.6	42
70	Synthesis of macroporous thermosensitive hydrogels: a novel method of controlling pore size. <i>Langmuir</i> , <b>2009</b> , 25, 3249-54	4	42
69	Synthesis and characterization of a novel heat resistant epoxy resin based on N,N'-bis(5-hydroxy-1-naphthyl)pyromellitic diimide. <i>Polymer</i> , <b>2008</b> , 49, 5249-5253	3.9	41
68	Study of the properties of hydrolyzed polyacrylamide hydrogels with various pore structures and rapid pH-sensitivities. <i>Reactive and Functional Polymers</i> , <b>2010</b> , 70, 602-609	4.6	40
67	Evaluation of diffusion in gel entrapment cell culture within hollow fibers. <i>World Journal of Gastroenterology</i> , <b>2005</b> , 11, 1599-604	5.6	40
66	On demand shape memory polymer via light regulated topological defects in a dynamic covalent network. <i>Nature Communications</i> , <b>2020</b> , 11, 4257	17.4	40
65	Synergetic Chemical and Physical Programming for Reversible Shape Memory Effect in a Dynamic Covalent Network with Two Crystalline Phases. <i>ACS Macro Letters</i> , <b>2019</b> , 8, 682-686	6.6	36

64	Design and fabrication of nanofibrillated cellulose-containing bilayer hydrogel actuators with temperature and near infrared laser responses. <i>Journal of Materials Chemistry B</i> , <b>2018</b> , 6, 1260-1271	7.3	36
63	Thermoset Shape-Memory Polyurethane with Intrinsic Plasticity Enabled by Transcarbamylation. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 11593-11597	3.6	36
62	Mechano-Plastic Pyrolysis of Dynamic Covalent Polymer Network toward Hierarchical 3D Ceramics. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807326	24	36
61	Ultratough nacre-inspired epoxy/graphene composites with shape memory properties. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 2787-2794	13	34
60	Structural tuning of polycaprolactone based thermadappt shape memory polymer. <i>Polymer Chemistry</i> , <b>2020</b> , 11, 1369-1374	4.9	34
59	Drilling by light: ice-templated photo-patterning enabled by a dynamically crosslinked hydrogel. <i>Materials Horizons</i> , <b>2019</b> , 6, 1013-1019	14.4	32
58	Horseradish peroxidase immobilized in macroporous hydrogel for acrylamide polymerization. <i>Journal of Polymer Science Part A</i> , <b>2008</b> , 46, 2222-2232	2.5	32
57	Programmable Reversible Shape Transformation of Hydrogels Based on Transient Structural Anisotropy. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001693	24	31
56	Light-Coded Digital Crystallinity Patterns Toward Bioinspired 4D Transformation of Shape-Memory Polymers. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000522	15.6	29
55	Hidden Thermoreversible Actuation Behavior of Nafion and Its Morphological Origin. <i>Macromolecules</i> , <b>2014</b> , 47, 1085-1089	5.5	29
54	Enzymatically degradable oxidized dextran/chitosan hydrogels with an anisotropic aligned porous structure. <i>Soft Matter</i> , <b>2013</b> , 9, 11136	3.6	22
53	Bioinspired Dual-Mode Temporal Communication via Digitally Programmable Phase-Change Materials. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008119	24	22
52	Synthesis of macroporous poly(N-isopropylacrylamide) hydrogel with ultrarapid swelling/deswelling properties. <i>Journal of Applied Polymer Science</i> , <b>2007</b> , 104, 4080-4087	2.9	21
51	Visible-light-driven boron/ferrum/cerium/titania photocatalyst. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 200, 141-147	4.7	21
50	A Metallosupramolecular Shape-Memory Polymer with Gradient Thermal Plasticity. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 12773-12776	3.6	19
49	Effects of Carbon Black Content on Microwave Absorbing and Mechanical Properties of Linear Low Density Polyethylene/Ethylene-Octene Copolymer/Calcium Carbonate Composites. <i>Polymer-Plastics Technology and Engineering</i> , <b>2011</b> , 50, 89-94		17
48	Synthesis and Properties of a Novel Flame-Retardant Epoxy Resin Containing Biphenyl/Phenyl Phosphonic Moieties. <i>Polymer-Plastics Technology and Engineering</i> , <b>2012</b> , 51, 896-903		16
47	Omnidirectional Shape Memory Effect via Lyophilization of PEG Hydrogels. <i>Macromolecular Rapid Communications</i> , <b>2017</b> , 38, 1600746	4.8	14

46	Linear Low-Density Polyethylene/Ethylene-Octene Copolymer/Multi-Walled Carbon Nanotube Composites with Microwave Absorbing Properties. <i>Polymer-Plastics Technology and Engineering</i> , <b>2010</b> , 49, 481-486		14
45	Cure kinetics of an epoxy resin containing naphthyl/dicyclopentadiene moieties and bis-phenoxy (3-hydroxy) phosphine oxide system and properties of its cured polymer. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 112, 761-768	2.9	14
44	Properties of a poly(acrylamide-co-diallyl dimethyl ammonium chloride) hydrogel synthesized in a water-ionic liquid binary system. <i>Journal of Applied Polymer Science</i> , <b>2010</b> , 115, 2940-2945	2.9	14
43	Effect of 1,4-dioxane on synthesis of macroporous poly(N-isopropylacrylamide) hydrogels. <i>Journal of Polymer Science Part A</i> , <b>2008</b> , 46, 6594-6603	2.5	14
42	Visible-light-driven titania/silica photocatalyst co-doped with boron and ferrum. <i>Applied Surface Science</i> , <b>2008</b> , 254, 6731-6735	6.7	14
41	Sequence-Rearranged Cocrystalline Polymer Network with Shape Reconfigurability and Tunable Switching Temperature. <i>ACS Macro Letters</i> , <b>2020</b> , 9, 588-594	6.6	13
40	4D Printing of Multi-Responsive Membrane for Accelerated In Vivo Bone Healing Via Remote Regulation of Stem Cell Fate. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103920	15.6	13
39	Autonomous Off-Equilibrium Morphing Pathways of a Supramolecular Shape-Memory Polymer. <i>Advanced Materials</i> , <b>2021</b> , 33, e2102473	24	13
38	Multifunctional shape-memory foams with highly tunable properties via organo-phase cryo-polymerization. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 9793-9800	13	12
37	A photo-driven metallo-supramolecular stress-free reversible shape memory polymer. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 6827-6830	13	12
36	Bio-Inspired Fast Actuation by Mechanical Instability of Thermoresponding Hydrogel Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	11
35	Bio-based composites from plant based precursors and hydroxyapatite with shape-memory capability. <i>Composites Science and Technology</i> , <b>2020</b> , 194, 108138	8.6	10
34	Microwave-absorbing properties of linear low-density polyethylene/ethyleneoctene copolymer/carbonyl iron powder composites. <i>Journal of Applied Polymer Science</i> , <b>2009</b> , 111, 1911-1916	2.9	10
33	Autonomous Shapeshifting Hydrogels via Temporal Programming of Photoswitchable Dynamic Network. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 2046-2053	9.6	10
32	Synthesis and characterization of biodegradable macroporous cryogels crosslinked by chitosan oligosaccharide-graft-acrylic acid. <i>Soft Matter</i> , <b>2012</b> , 8, 4382	3.6	9
31	Ultrafast Digital Fabrication of Designable Architected Liquid Crystalline Elastomer. <i>Advanced Materials</i> , <b>2021</b> , 33, e2105597	24	8
30	Emulsion Lyophilization as a Facile Pathway to Fabricate Stretchable Polymer Foams Enabling Multishape Memory Effect and Clip Application. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 32423-32430	9.5	7
29	Investigation on the synthesis of 25-hydroxycholesterol. <i>Steroids</i> , <b>2014</b> , 85, 1-5	2.8	7

28	The Curing Behavior and Properties of Diglycidyl Ether of 4,4'-Bis(4-hydroxybenzoyloxy)-3,3',5,5'-tetramethylbiphenyl and its Composites with Multi-Wall Carbon Nanotubes. <i>Polymer-Plastics Technology and Engineering</i> , <b>2010</b> , 49, 1428-1432		7
27	Glucose-responsive shape-memory cryogels. <i>Journal of Materials Research</i> , <b>2020</b> , 35, 2396-2404	2.5	7
26	Effects of the Heating Rate and the Amount of Organic Montmorillonite on the Thermal Properties of the Novel Liquid Crystalline Epoxy Nanocomposite. <i>Polymer-Plastics Technology and Engineering</i> , <b>2008</b> , 47, 363-366		6
25	Studies on Cure Kinetics of Diglycidyl Ether of 4,4'-Bisphenol/4,4'-Diaminobiphenyl Using the Advanced Isoconversional Method. <i>Polymer-Plastics Technology and Engineering</i> , <b>2008</b> , 47, 1105-1108		6
24	Differential diffusion driven far-from-equilibrium shape-shifting of hydrogels. <i>Nature Communications</i> , <b>2021</b> , 12, 6155	17.4	6
23	Transparent origami glass. <i>Nature Communications</i> , <b>2021</b> , 12, 4261	17.4	6
22	Digital light fabrication of reversible shape memory polymers. <i>Chemical Engineering Journal</i> , <b>2021</b> , 426, 131306	14.7	6
21	Solvent-Assisted 4D Programming and Reprogramming of Liquid Crystalline Organo-gels. <i>Advanced Materials</i> , <b>2021</b> , e2107855	24	6
20	A Soft Shape Memory Reversible Dry Adhesive. <i>Chinese Journal of Polymer Science (English Edition)</i> , <b>2018</b> , 36, 953-959	3.5	5
19	N-Hydroxyphthalimide catalyzed allylic oxidation of steroids with t-butyl hydroperoxide. <i>Steroids</i> , <b>2015</b> , 94, 1-6	2.8	5
18	Shape memory polymers for flexible electronics. <i>Scientia Sinica: Physica, Mechanica Et Astronomica</i> , <b>2016</b> , 46, 044602	1.5	5
17	Homeostatic growth of dynamic covalent polymer network toward ultrafast direct soft lithography. <i>Science Advances</i> , <b>2021</b> , 7, eabi7360	14.3	5
16	Reconfigurable Polymer Networks for Digital Light Processing 3D Printing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 15584-15590	9.5	5
15	A highly stereoselective synthesis of C-24 and C-25 oxysterols from desmosterol. <i>Steroids</i> , <b>2016</b> , 109, 16-21	2.8	5
14	Rapid digital light 3D printing enabled by a soft and deformable hydrogel separation interface. <i>Nature Communications</i> , <b>2021</b> , 12, 6070	17.4	4
13	A thermadap epoxy based on borate ester crosslinking and its carbon fiber composite as rapidly processable prepreg. <i>Composites Communications</i> , <b>2021</b> , 28, 100979	6.7	4
12	Rapidly and Repeatedly Reprogrammable Liquid Crystalline Elastomer via a Shape Memory Mechanism.. <i>Advanced Materials</i> , <b>2022</b> , e2201679	24	4
11	A conductive supramolecular hydrogel creates ideal endogenous niches to promote spinal cord injury repair.. <i>Bioactive Materials</i> , <b>2022</b> , 15, 103-119	16.7	4

10	Upcycling of dynamic thiourea thermoset polymers by intrinsic chemical strengthening.. <i>Nature Communications</i> , <b>2022</b> , 13, 397	17.4	3
9	Shape-Memory Effect by Sequential Coupling of Functions over Different Length Scales in an Architected Hydrogel. <i>Biomacromolecules</i> , <b>2020</b> , 21, 680-687	6.9	3
8	Converse Two-way Shape Memory Effect Through Dynamic Covalent Network Design. <i>Journal of Materials Chemistry A</i> ,	13	3
7	Investigation on the One-Step Preparation of 2-Substituted Benzo[B]Thiophenes. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , <b>2013</b> , 188, 873-878	1	2
6	An Orthogonal Dynamic Covalent Polymer Network with Distinctive Topology Transformations for Shape- and Molecular Architecture Reconfiguration.. <i>Angewandte Chemie - International Edition</i> , <b>2022</b> , e202109941	16.4	2
5	Innentitelbild: Thermoset Shape-Memory Polyurethane with Intrinsic Plasticity Enabled by Transcarbamylation (Angew. Chem. 38/2016). <i>Angewandte Chemie</i> , <b>2016</b> , 128, 11474-11474	3.6	1
4	Investigation on the reduction of sulfonyl chlorides with sulfur dioxide in water as solvent. <i>Monatshefte für Chemie</i> , <b>2013</b> , 144, 1547-1550	1.4	1
3	Improved Synthesis of 2-Chloro-3-amino-4-methylpyridine. <i>Journal of Heterocyclic Chemistry</i> , <b>2013</b> , 50, 145-148	1.9	1
2	A new stereolithographic 3D printing strategy for hydrogels with a large mechanical tunability and self-weldability. <i>Additive Manufacturing</i> , <b>2022</b> , 50, 102563	6.1	1
1	UV curable micro-structured shape memory epoxy with tunable performance. <i>Journal of Applied Polymer Science</i> , <b>2021</b> , 138, 51319	2.9	1