Qi He

List of Publications by Year
in descending order

93 papers	23,508 citations	25423 59 h-index	45040 94 g-index
96 all docs	96 docs citations	96 times ranked	23326 citing authors

#	Article	IF	Citations
1	A soft neuroprosthetic hand providing simultaneous myoelectric control and tactile feedback. Nature Biomedical Engineering, 2023, 7, 589-598.	11.6	169
2	An off-the-shelf bioadhesive patch for sutureless repair of gastrointestinal defects. Science Translational Medicine, 2022, 14, eabh2857.	5.8	67
3	Magnetic Soft Materials and Robots. Chemical Reviews, 2022, 122, 5317-5364.	23.0	249
4	Ultrasoundâ€Responsive Aqueous Twoâ€Phase Microcapsules for Onâ€Demand Drug Release. Angewandte Chemie, 2022, 134, .	1.6	4
5	Ultrasoundâ€Responsive Aqueous Twoâ€Phase Microcapsules for Onâ€Demand Drug Release. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
6	Engineered Living Hydrogels. Advanced Materials, 2022, 34, e2201326.	11.1	75
7	Telerobotic neurovascular interventions with magnetic manipulation. Science Robotics, 2022, 7, eabg9907.	9.9	114
8	Nanostructured artificial-muscle fibres. Nature Nanotechnology, 2022, 17, 677-678.	15.6	2
9	An extreme toughening mechanism for soft materials. Soft Matter, 2022, 18, 5742-5749.	1.2	15
10	Telerobotically Controlled Magnetic Soft Continuum Robots for Neurovascular Interventions. , 2022, , .		2
11	Electrical bioadhesive interface for bioelectronics. Nature Materials, 2021, 20, 229-236.	13.3	361
12	A Multifunctional Origami Patch for Minimally Invasive Tissue Sealing. Advanced Materials, 2021, 33, e2007667.	11.1	77
13	Bioadhesives: A Multifunctional Origami Patch for Minimally Invasive Tissue Sealing (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock 1	11.1	0
14	Magnetic Living Hydrogels for Intestinal Localization, Retention, and Diagnosis. Advanced Functional Materials, 2021, 31, 2010918.	7.8	77
15	Hydrogel-based biocontainment of bacteria for continuous sensing and computation. Nature Chemical Biology, 2021, 17, 724-731.	3.9	110
16	Soft Materials by Design: Unconventional Polymer Networks Give Extreme Properties. Chemical Reviews, 2021, 121, 4309-4372.	23.0	472
17	Evolutionary design of magnetic soft continuum robots. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	85
18	Stretchable Antiâ€Fogging Tapes for Diverse Transparent Materials. Advanced Functional Materials, 2021, 31, 2103551.	7.8	25

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19	Adaptive and multifunctional hydrogel hybrid probes for long-term sensing and modulation of neural activity. Nature Communications, 2021, 12, 3435.	5.8	130
20	Modular Integration of Hydrogel Neural Interfaces. ACS Central Science, 2021, 7, 1516-1523.	5.3	9
21	Rapid and coagulation-independent haemostatic sealing by a paste inspired by barnacle glue. Nature Biomedical Engineering, 2021, 5, 1131-1142.	11.6	146
22	Shaping the future of robotics through materials innovation. Nature Materials, 2021, 20, 1582-1587.	13.3	65
23	Graded intrafillable architecture-based iontronic pressure sensor with ultra-broad-range high sensitivity. Nature Communications, 2020, 11, 209.	5.8	426
24	Fracture of polymer networks with diverse topological defects. Physical Review E, 2020, 102, 052503.	0.8	33
25	Dynamic intermolecular interactions through hydrogen bonding of water promote heat conduction in hydrogels. Materials Horizons, 2020, 7, 2936-2943.	6.4	33
26	Thermodynamic analysis and material design to enhance chemo-mechanical coupling in hydrogels for energy harvesting from salinity gradients. Journal of Applied Physics, 2020, 128, .	1.1	8
27	Bioinspired metagel with broadband tunable impedance matching. Science Advances, 2020, 6, .	4.7	31
28	Ultrathin and Robust Hydrogel Coatings on Cardiovascular Medical Devices to Mitigate Thromboembolic and Infectious Complications. Advanced Healthcare Materials, 2020, 9, e2001116.	3.9	53
29	Instant tough bioadhesive with triggerable benign detachment. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15497-15503.	3.3	210
30	Strong adhesion of wet conducting polymers on diverse substrates. Science Advances, 2020, 6, eaay5394.	4.7	141
31	3D printing of conducting polymers. Nature Communications, 2020, 11, 1604.	5.8	568
32	An organosynthetic dynamic heart model with enhanced biomimicry guided by cardiac diffusion tensor imaging. Science Robotics, 2020, 5, .	9.9	30
33	Fatigue-resistant adhesion of hydrogels. Nature Communications, 2020, 11, 1071.	5.8	187
34	Hydrogel machines. Materials Today, 2020, 36, 102-124.	8.3	625
35	Designing complex architectured materials with generative adversarial networks. Science Advances, 2020, 6, eaaz4169.	4.7	144
36	EML webinar overview: Extreme mechanics of soft materials for merging humanâ€“machineâ€‹ intelligence. Extreme Mechanics Letters, 2020, 39, 100784.	2.0	9

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37	Metagel with Broadband Tunable Acoustic Properties Over Airâ€"Waterâ€"Solid Ranges. Advanced Functional Materials, 2019, 29, 1903699.	7.8	31
38	Hydrogels: Metagel with Broadband Tunable Acoustic Properties Over Airâ€"Waterâ€"Solid Ranges (Adv.) Tj ETQq0 0 0 rgBT /Overlock 1	7.8	2
39	Dry double-sided tape for adhesion of wet tissues and devices. Nature, 2019, 575, 169-174.	13.7	798
40	Ferromagnetic soft continuum robots. Science Robotics, 2019, 4, .	9.9	698
41	High stretchability, strength, and toughness of living cells enabled by hyperelastic vimentin intermediate filaments. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17175-17180.	3.3	103
42	Ingestible hydrogel device. Nature Communications, 2019, 10, 493.	5.8	168
43	Anti-fatigue-fracture hydrogels. Science Advances, 2019, 5, eaau8528.	4.7	305
44	Propagation of elastic solitons in chains of pre-deformed beams. New Journal of Physics, 2019, 21, 073008.	1.2	23
45	Muscle-like fatigue-resistant hydrogels by mechanical training. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10244-10249.	3.3	318
46	Pure PEDOT:PSS hydrogels. Nature Communications, 2019, 10, 1043.	5.8	528
47	Multifunctional â€œHydrogel Skinsâ€• on Diverse Polymers with Arbitrary Shapes. Advanced Materials, 2019, 31, e1807101.	11.1	258
48	3D Printing: A New 3D Printing Strategy by Harnessing Deformation, Instability, and Fracture of Viscoelastic Inks (Adv. Mater. 6/2018). Advanced Materials, 2018, 30, 1870037.	11.1	7
49	A New 3D Printing Strategy by Harnessing Deformation, Instability, and Fracture of Viscoelastic Inks. Advanced Materials, 2018, 30, 1704028.	11.1	207
50	3D Printing of Living Responsive Materials and Devices. Advanced Materials, 2018, 30, 1704821.	11.1	277
51	Soft wall-climbing robots. Science Robotics, 2018, 3, .	9.9	419
52	Controlled crack propagation for atomic precision handling of wafer-scale two-dimensional materials. Science, 2018, 362, 665-670.	6.0	208
53	Folding artificial mucosa with cell-laden hydrogels guided by mechanics models. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7503-7508.	3.3	60
54	A One-Step Method of Hydrogel Modification by Single-Walled Carbon Nanotubes for Highly Stretchable and Transparent Electronics. ACS Applied Materials & Interfaces, 2018, 10, 28069-28075.	4.0	75

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55	Composite Cellularized Structures Created from an Interpenetrating Polymer Network Hydrogel Reinforced by a 3D Woven Scaffold. Macromolecular Bioscience, 2018, 18, e1800140.	2.1	21
56	Metamaterials with amplitude gaps for elastic solitons. Nature Communications, 2018, 9, 3410.	5.8	94
57	Printing ferromagnetic domains for untethered fast-transforming soft materials. Nature, 2018, 558, 274-279.	13.7	1,426
58	Strong, Tough, Stretchable, and Selfâ€Adhesive Hydrogels from Intrinsically Unstructured Proteins. Advanced Materials, 2017, 29, 1604743.	11.1	130
59	Hydraulic hydrogel actuators and robots optically and sonically camouflaged in water. Nature Communications, 2017, 8, 14230.	5.8	760
60	Stretchable living materials and devices with hydrogelâ€“elastomer hybrids hosting programmed cells. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2200-2205.	3.3	212
61	Tough and tunable adhesion of hydrogels: experiments and models. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 543-554.	1.5	62
62	Harnessing the hygroscopic and biofluorescent behaviors of genetically tractable microbial cells to design biohybrid wearables. Science Advances, 2017, 3, e1601984.	4.7	170
63	Avoiding the pull-in instability of a dielectric elastomer film and the potential for increased actuation and energy harvesting. Soft Matter, 2017, 13, 4552-4558.	1.2	53
64	Impermeable Robust Hydrogels via Hybrid Lamination. Advanced Healthcare Materials, 2017, 6, 1700520.	3.9	58
65	Designing toughness and strength for soft materials. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8138-8140.	3.3	123
66	Fringe instability in constrained soft elastic layers. Soft Matter, 2016, 12, 8899-8906.	1.2	21
67	Highly Stretchable, Strain Sensing Hydrogel Optical Fibers. Advanced Materials, 2016, 28, 10244-10249.	11.1	327
68	Incorporation of silicone oil into elastomers enhances barnacle detachment by active surface strain. Biofouling, 2016, 32, 1017-1028.	0.8	19
69	Skin-inspired hydrogelâ€“elastomer hybrids with robust interfaces and functional microstructures. Nature Communications, 2016, 7, 12028.	5.8	696
70	Stretchable Hydrogel Electronics and Devices. Advanced Materials, 2016, 28, 4497-4505.	11.1	550
71	Tough bonding of hydrogels to diverse non-porousÂsurfaces. Nature Materials, 2016, 15, 190-196.	13.3	807
72	Urinary catheter capable of repeated on-demand removal of infectious biofilms via active deformation. Biomaterials, 2016, 77, 77-86.	5.7	28

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73	3D Printing: 3D Printing of Highly Stretchable and Tough Hydrogels into Complex, Cellularized Structures (Adv. Mater. 27/2015). Advanced Materials, 2015, 27, 4034-4034.	11.1	77
74	A three-dimensional phase diagram of growth-induced surface instabilities. Scientific Reports, 2015, 5, 8887.	1.6	175
75	3D Printing of Highly Stretchable and Tough Hydrogels into Complex, Cellularized Structures. Advanced Materials, 2015, 27, 4035-4040.	11.1	720
76	Bioinspired Reversibly Crossâ€linked Hydrogels Comprising Polypeptide Micelles Exhibit Enhanced Mechanical Properties. Advanced Functional Materials, 2015, 25, 3122-3130.	7.8	59
77	Phase Diagrams of Instabilities in Compressed Film-Substrate Systems. Journal of Applied Mechanics, Transactions ASME, 2014, 81, 0510041-5100410.	1.1	92
78	Harnessing large deformation and instabilities of soft dielectrics: Theory, experiment, and application. Applied Physics Reviews, 2014, 1, 021304.	5.5	144
79	Magnetoactive sponges for dynamic control of microfluidic flow patterns in microphysiological systems. Lab on A Chip, 2014, 14, 514-521.	3.1	27
80	Multi-scale multi-mechanism design of tough hydrogels: building dissipation into stretchy networks. Soft Matter, 2014, 10, 672-687.	1.2	938
81	Cephalopod-inspired design of electro-mechano-chemically responsive elastomers for on-demand fluorescent patterning. Nature Communications, 2014, 5, 4899.	5.8	202
82	Ultrasound-triggered disruption and self-healing of reversibly cross-linked hydrogels for drug delivery and enhanced chemotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9762-9767.	3.3	372
83	Mechanochemical Activation of Covalent Bonds in Polymers with Full and Repeatable Macroscopic Shape Recovery. ACS Macro Letters, 2014, 3, 216-219.	2.3	309
84	Stretchable and High-Performance Supercapacitors with Crumpled Graphene Papers. Scientific Reports, 2014, 4, 6492.	1.6	207
85	Tunable stiffness of electrorheological elastomers by designing mesostructures. Applied Physics Letters, 2013, 103, .	1.5	36
86	Separating poroviscoelastic deformation mechanisms in hydrogels. Applied Physics Letters, 2013, 102, .	1.5	80
87	Highly stretchable and tough hydrogels. Nature, 2012, 489, 133-136.	13.7	4,089
88	Dynamic Electrostatic Lithography: Multiscale On-Demand Patterning on Large-Area Curved Surfaces (Adv. Mater. 15/2012). Advanced Materials, 2012, 24, 1946-1946.	11.1	1
89	Electro-creasing instability in deformed polymers: experiment and theory. Soft Matter, 2011, 7, 6583.	1.2	44
90	Mechanisms of large actuation strain in dielectric elastomers. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 504-515.	2.4	252

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91	Active scaffolds for on-demand drug and cell delivery. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 67-72.	3.3	630
92	NONEQUILIBRIUM THERMODYNAMICS OF DIELECTRIC ELASTOMERS. International Journal of Applied Mechanics, 2011, 03, 203-217.	1.3	143
93	Poroelasticity of a covalently crosslinked alginate hydrogel under compression. Journal of Applied Physics, 2010, 108, .	1.1	69