## Ximin He

## 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.

81
papers
3,038
citations
4,186
ext. papers
4,186
ext. citations
30
h-index
g-index
54
g-index
L-index

#	Paper	IF	Citations
81	Synthetic homeostatic materials with chemo-mechano-chemical self-regulation. <i>Nature</i> , <b>2012</b> , 487, 214	1- <b>8</b> 50.4	333
80	Formation of nanopatterned polymer blends in photovoltaic devices. <i>Nano Letters</i> , <b>2010</b> , 10, 1302-7	11.5	236
79	Strong tough hydrogels via the synergy of freeze-casting and salting out. <i>Nature</i> , <b>2021</b> , 590, 594-599	50.4	176
78	Bioinspired Hydrogel Interferometer for Adaptive Coloration and Chemical Sensing. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800468	24	149
77	Soft phototactic swimmer based on self-sustained hydrogel oscillator. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6	140
76	Artificial phototropism for omnidirectional tracking and harvesting of light. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 1048-1055	28.7	114
75	A double droplet trap system for studying mass transport across a droplet-droplet interface. <i>Lab on A Chip</i> , <b>2010</b> , 10, 1281-5	7.2	114
74	An aptamer-functionalized chemomechanically modulated biomolecule catch-and-release system. <i>Nature Chemistry</i> , <b>2015</b> , 7, 447-54	17.6	98
73	Superhydrophobic photothermal icephobic surfaces based on candle soot. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 11240-11246	11.5	96
72	Controlling nanoscale morphology in polymer photovoltaic devices. <i>Nano Today</i> , <b>2010</b> , 5, 231-242	17.9	93
71	Exploiting the superior protein resistance of polymer brushes to control single cell adhesion and polarisation at the micron scale. <i>Biomaterials</i> , <b>2010</b> , 31, 5030-41	15.6	85
7°	Poly(vinyl alcohol) Hydrogels with Broad-Range Tunable Mechanical Properties via the Hofmeister Effect. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007829	24	79
69	Formation of Well-Ordered Heterojunctions in Polymer:PCBM Photovoltaic Devices. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 139-146	15.6	76
68	Bioinspired Multifunctional Anti-icing Hydrogel. <i>Matter</i> , <b>2020</b> , 2, 723-734	12.7	66
67	Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804916	24	64
66	Quasi-Two-Dimensional Metal Oxide Semiconductors Based Ultrasensitive Potentiometric Biosensors. <i>ACS Nano</i> , <b>2017</b> , 11, 4710-4718	16.7	61
65	Hydrogel-actuated integrated responsive systems (HAIRS): Moving towards adaptive materials. <i>Current Opinion in Solid State and Materials Science</i> , <b>2011</b> , 15, 236-245	12	60

## (2021-2020)

64	Bioinspired high-power-density strong contractile hydrogel by programmable elastic recoil. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	50	
63	Polypyrrole Microtubule Actuators for Seizing and Transferring Microparticles. <i>Advanced Functional Materials</i> , <b>2007</b> , 17, 2911-2917	15.6	46	
62	Hierarchically Structured Stretchable Conductive Hydrogels for High-Performance Wearable Strain Sensors and Supercapacitors. <i>Matter</i> , <b>2020</b> , 3, 1196-1210	12.7	46	•
61	Somatosensory actuator based on stretchable conductive photothermally responsive hydrogel. <i>Science Robotics</i> , <b>2021</b> , 6,	18.6	46	
60	Bioinspired structural color sensors based on responsive soft materials. <i>Current Opinion in Solid State and Materials Science</i> , <b>2019</b> , 23, 13-27	12	46	
59	Biomimetic Hydrogel Composites for Soil Stabilization and Contaminant Mitigation. <i>Environmental Science &amp; Environmental Scien</i>	10.3	37	
58	Electrochemical actuator based on monolithic polypyrrole <sup>®</sup> iO2 nanoparticle composite film. <i>Sensors and Actuators B: Chemical</i> , <b>2006</b> , 115, 488-493	8.5	37	
57	Interactively Full-Color Changeable Electronic Fiber Sensor with High Stretchability and Rapid Response. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000356	15.6	35	
56	Formation of Hierarchically Structured Thin Films. Advanced Functional Materials, 2009, 19, 2236-2243	15.6	35	
55	Cephalopod-Inspired Chromotropic Ionic Skin with Rapid Visual Sensing Capabilities to Multiple Stimuli. <i>ACS Nano</i> , <b>2021</b> , 15, 3509-3521	16.7	34	
54	Wood-Inspired Morphologically Tunable Aligned Hydrogel for High-Performance Flexible All-Solid-State Supercapacitors. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909133	15.6	30	
53	Microscale Silicon Origami. <i>Small</i> , <b>2016</b> , 12, 5401-5406	11	30	
52	Hydrocipher: Bioinspired Dynamic Structural Color-Based Cryptographic Surface. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 1901259	8.1	30	
51	Hydrogel-Assisted Enzyme-Induced Carbonate Mineral Precipitation. <i>Journal of Materials in Civil Engineering</i> , <b>2016</b> , 28, 04016089	3	28	
50	Synthesis and characterization of low bandgap conjugated donor acceptor polymers for polymer: PCBM solar cells. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 9231		27	
49	Tunable Sponge-Like Hierarchically Porous Hydrogels with Simultaneously Enhanced Diffusivity and Mechanical Properties. <i>Advanced Materials</i> , <b>2021</b> , 33, e2008235	24	26	
48	4D Printable Tough and Thermoresponsive Hydrogels. <i>ACS Applied Materials &amp; Description</i> , 13, 12689-12697	9.5	25	
47	Photonic Vitrimer Elastomer with Self-Healing, High Toughness, Mechanochromism, and Excellent Durability based on Dynamic Covalent Bond. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2009017	15.6	25	

46	Homogeneous Freestanding Luminescent Perovskite Organogel with Superior Water Stability. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902928	24	23
45	Highly stretchable self-sensing actuator based on conductive photothermally-responsive hydrogel. <i>Materials Today</i> , <b>2021</b> ,	21.8	23
44	Durable and ductile double-network material for dust control. <i>Geoderma</i> , <b>2020</b> , 361, 114090	6.7	20
43	Multiresponse Shape-Memory Nanocomposite with a Reversible Cycle for Powerful Artificial Muscles. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 987-997	9.6	20
42	Kinematic Modeling and Trajectory Tracking Control of an Octopus-Inspired Hyper-Redundant Robot. <i>IEEE Robotics and Automation Letters</i> , <b>2020</b> , 5, 3460-3467	4.2	18
41	A Room-Temperature High-Conductivity Metal Printing Paradigm with Visible-Light Projection Lithography. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1807615	15.6	18
40	Heterogeneous Hydrogel Structures with Spatiotemporal Reconfigurability using Addressable and Tunable Voxels. <i>Advanced Materials</i> , <b>2021</b> , 33, e2005906	24	18
39	Chemo-Mechanically Regulated Oscillation of an Enzymatic Reaction. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 521-523	9.6	17
38	Swaying gel: chemo-mechanical self-oscillation based on dynamic buckling. <i>Matter</i> , <b>2021</b> , 4, 1029-1041	12.7	17
37	Tough-Hydrogel Reinforced Low-Tortuosity Conductive Networks for Stretchable and High-Performance Supercapacitors. <i>Advanced Materials</i> , <b>2021</b> , 33, e2100983	24	17
36	Solar anti-icing surface with enhanced condensate self-removing at extreme environmental conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	16
35	Flexible and Transparent High-Dielectric-Constant Polymer Films Based on Molecular Ferroelectric-Modified Poly(Vinyl Alcohol) <b>2020</b> , 2, 453-460		13
34	Skin temperature-triggered, debonding-on-demand sticker for a self-powered mechanosensitive communication system. <i>Matter</i> , <b>2021</b> , 4, 1962-1974	12.7	13
33	Oblique Colloidal Lithography for the Fabrication of Nonconcentric Features. ACS Nano, 2017, 11, 6594	-660/4	11
32	Multifunctional actuation systems responding to chemical gradients. <i>Soft Matter</i> , <b>2012</b> , 8, 8289	3.6	11
31	Visualizing Morphogenesis through Instability Formation in 4-D Printing. <i>ACS Applied Materials</i> & Samp; Interfaces, <b>2019</b> , 11, 47468-47475	9.5	11
30	Nanopatterning via Pressure-Induced Instabilities in Thin Polymer Films. <i>Advanced Materials</i> , <b>2009</b> , 21, 2083-2087	24	10
29	Surfactant-free fabrication of pNIPAAm microgels in microfluidic devices. <i>Journal of Materials Research</i> , <b>2019</b> , 34, 206-213	2.5	8

## (2022-2021)

28	Rapid and scalable fabrication of ultra-stretchable, anti-freezing conductive gels by cononsolvency effect. <i>EcoMat</i> , <b>2021</b> , 3, e12085	9.4	8
27	Computational modeling of oscillating fins that "catch and release" targeted nanoparticles in bilayer flows. <i>Soft Matter</i> , <b>2016</b> , 12, 1374-84	3.6	7
26	Hydrogel Ionotronics with Ultra-Low Impedance and High Signal Fidelity across Broad Frequency and Temperature Ranges. <i>Advanced Functional Materials</i> ,2109506	15.6	6
25	Decentralized Control of Distributed Actuation in a Segmented Soft Robot Arm 2018,		6
24	Flexible patch with printable and antibacterial conductive hydrogel electrodes for accelerated wound healing <i>Biomaterials</i> , <b>2022</b> , 285, 121479	15.6	6
23	Harnessing Cooperative Interactions between Thermoresponsive Aptamers and Gels To Trap and Release Nanoparticles. <i>ACS Applied Materials &amp; Samp; Interfaces</i> , <b>2016</b> , 8, 30475-30483	9.5	5
22	Inorganic Photonic Microspheres with Localized Concentric Ordering for Deep Pattern Encoding and Triple Sensory Microsensor. <i>Small</i> , <b>2020</b> , 16, e2003638	11	5
21	Artificial Phototropic Systems for Enhanced Light Harvesting Based on a Liquid Crystal Elastomer. <i>Advanced Intelligent Systems</i> ,2000234	6	4
20	Esophagus-Inspired Actuator for Solid Transportation via the Synergy of Lubrication and Contractile Deformation. <i>Advanced Science</i> , <b>2021</b> , e2102800	13.6	3
19	Soft-fiber-reinforced tough and fatigue resistant hydrogels. <i>Matter</i> , <b>2021</b> , 4, 1755-1757	12.7	3
18	Hydrogels: Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection (Adv. Mater. 46/2018). <i>Advanced Materials</i> , <b>2018</b> , 30, 1870352	24	3
17	New Insights on the Control and Function of Octopus Suckers. <i>Advanced Intelligent Systems</i> , <b>2020</b> , 2, 1900154	6	2
16	Photodriven Self-Excited Hydrogel Oscillators. <i>Physical Review Applied</i> , <b>2022</b> , 17,	4.3	2
15	Stimuli-Responsive Polymers for Soft Robotics. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , <b>2022</b> , 5,	11.8	2
14	Simultaneous topographic and chemical patterning via imprinting defined nano-reactors. <i>RSC Advances</i> , <b>2016</b> , 6, 96538-96544	3.7	2
13	Tendon-inspired anti-freezing tough gels. <i>IScience</i> , <b>2021</b> , 24, 102989	6.1	2
12	Toward Rapid Detection of Trace Lead and Cadmium by Anodic Stripping Voltammetry in Complex Wastewater Streams. <i>ACS ES&amp;T Engineering</i> ,		2
11	Transparent, Photothermal, and Icephobic Surfaces via Layer-by-Layer Assembly <i>Advanced Science</i> , <b>2022</b> , e2105986	13.6	2

10	A novel paradigm for the fabrication of highly uniform nanowire arrays using residual stress-induced patterning. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 5814-5821	7.1	1
9	Bioinspired Sensors and Actuators Based on Stimuli-Responsive Hydrogels for Underwater Soft Robotics <b>2021</b> , 99-115		1
8	Effects of hydrolysis degree on the formation of ferroelectric-core fillers and the electric performance of polyvinyl alcohol composites. <i>Composites Science and Technology</i> , <b>2021</b> , 218, 109147	8.6	1
7	Artificial Phototropic Systems for Enhanced Light Harvesting Based on a Liquid Crystal Elastomer. <i>Advanced Intelligent Systems</i> , <b>2021</b> , 3, 2170070	6	1
6	A EmartTaptamer-functionalized continuous label-free cell catch-transport-release system. <i>Journal of Materials Chemistry B</i> , <b>2021</b> , 9, 7196-7204	7.3	1
5	Mussel-Inspired Underwater Adhesives-from Adhesion Mechanisms to Engineering Applications: A Critical Review <b>2021</b> , 739-759		1
4	Ultrastretchable Polyaniline-Based Conductive Organogel with High Strain Sensitivity1477-1483		1
3	Continuously growing multi-layered hydrogel structures with seamless interlocked interface. <i>Matter</i> , <b>2022</b> , 5, 634-653	12.7	O
2	Bio-Inspired Anti-Icing Surface Materials <b>2020</b> , 467-493		
1	Self-Reporting Hydrogel Sensors Based on Surface Instability-Induced Optical Scattering. <i>Advanced Photonics Research</i> , <b>2021</b> , 2, 2100058	1.9	