Ximin He

List of Publications by Year in Descending Order

81 papers	3,038 citations	30 h-index	54 g-index
88 ext. papers	4,186 ext. citations	13.8 avg, IF	5.63 L-index

#	Paper	IF	Citations
81	Photodriven Self-Excited Hydrogel Oscillators. *Physical Review Applied*, **2022**, 17,	4.3	2
80	Continuously growing multi-layered hydrogel structures with seamless interlocked interface. *Matter*, **2022**, 5, 634-653	12.7	0
79	Stimuli-Responsive Polymers for Soft Robotics. *Annual Review of Control, Robotics, and Autonomous Systems*, **2022**, 5,	11.8	2
78	Transparent, Photothermal, and Icephobic Surfaces via Layer-by-Layer Assembly.. *Advanced Science*, **2022**, e2105986	13.6	2
77	Flexible patch with printable and antibacterial conductive hydrogel electrodes for accelerated wound healing.. *Biomaterials*, **2022**, 285, 121479	15.6	6
76	Bioinspired Sensors and Actuators Based on Stimuli-Responsive Hydrogels for Underwater Soft Robotics **2021**, 99-115		1
75	Effects of hydrolysis degree on the formation of ferroelectric-core fillers and the electric performance of polyvinyl alcohol composites. *Composites Science and Technology*, **2021**, 218, 109147	8.6	1
74	Artificial Phototropic Systems for Enhanced Light Harvesting Based on a Liquid Crystal Elastomer. *Advanced Intelligent Systems*, **2021**, 3, 2170070	6	1
73	Esophagus-Inspired Actuator for Solid Transportation via the Synergy of Lubrication and Contractile Deformation. *Advanced Science*, **2021**, e2102800	13.6	3
72	Swaying gel: chemo-mechanical self-oscillation based on dynamic buckling. *Matter*, **2021**, 4, 1029-1041	12.7	17
71	Tunable Sponge-Like Hierarchically Porous Hydrogels with Simultaneously Enhanced Diffusivity and Mechanical Properties. *Advanced Materials*, **2021**, 33, e2008235	24	26
70	Solar anti-icing surface with enhanced condensate self-removing at extreme environmental conditions. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	16
69	Somatosensory actuator based on stretchable conductive photothermally responsive hydrogel. *Science Robotics*, **2021**, 6,	18.6	46
68	Tough-Hydrogel Reinforced Low-Tortuosity Conductive Networks for Stretchable and High-Performance Supercapacitors. *Advanced Materials*, **2021**, 33, e2100983	24	17
67	Self-Reporting Hydrogel Sensors Based on Surface Instability-Induced Optical Scattering. *Advanced Photonics Research*, **2021**, 2, 2100058	1.9	
66	Soft-fiber-reinforced tough and fatigue resistant hydrogels. *Matter*, **2021**, 4, 1755-1757	12.7	3
65	Skin temperature-triggered, debonding-on-demand sticker for a self-powered mechanosensitive communication system. *Matter*, **2021**, 4, 1962-1974	12.7	13

64	Highly stretchable self-sensing actuator based on conductive photothermally-responsive hydrogel. *Materials Today*, **2021**,	21.8	23
63	4D Printable Tough and Thermoresponsive Hydrogels. *ACS Applied Materials & Interfaces*, **2021**, 13, 12689-12697	9.5	25
62	Photonic Vitrimer Elastomer with Self-Healing, High Toughness, Mechanochromism, and Excellent Durability based on Dynamic Covalent Bond. *Advanced Functional Materials*, **2021**, 31, 2009017	15.6	25
61	Heterogeneous Hydrogel Structures with Spatiotemporal Reconfigurability using Addressable and Tunable Voxels. *Advanced Materials*, **2021**, 33, e2005906	24	18
60	A SmartTaptamer-functionalized continuous label-free cell catch-transport-release system. *Journal of Materials Chemistry B*, **2021**, 9, 7196-7204	7.3	1
59	Strong tough hydrogels via the synergy of freeze-casting and salting out. *Nature*, **2021**, 590, 594-599	50.4	176
58	Poly(vinyl alcohol) Hydrogels with Broad-Range Tunable Mechanical Properties via the Hofmeister Effect. *Advanced Materials*, **2021**, 33, e2007829	24	79
57	Rapid and scalable fabrication of ultra-stretchable, anti-freezing conductive gels by cononsolvency effect. *EcoMat*, **2021**, 3, e12085	9.4	8
56	Cephalopod-Inspired Chromotropic Ionic Skin with Rapid Visual Sensing Capabilities to Multiple Stimuli. *ACS Nano*, **2021**, 15, 3509-3521	16.7	34
55	Mussel-Inspired Underwater Adhesives-from Adhesion Mechanisms to Engineering Applications: A Critical Review **2021**, 739-759		1
54	Tendon-inspired anti-freezing tough gels. *IScience*, **2021**, 24, 102989	6.1	2
53	Multiresponse Shape-Memory Nanocomposite with a Reversible Cycle for Powerful Artificial Muscles. *Chemistry of Materials*, **2021**, 33, 987-997	9.6	20
52	Superhydrophobic photothermal icephobic surfaces based on candle soot. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 11240-11246	11.5	96
51	Kinematic Modeling and Trajectory Tracking Control of an Octopus-Inspired Hyper-Redundant Robot. *IEEE Robotics and Automation Letters*, **2020**, 5, 3460-3467	4.2	18
50	Flexible and Transparent High-Dielectric-Constant Polymer Films Based on Molecular Ferroelectric-Modified Poly(Vinyl Alcohol) **2020**, 2, 453-460		13
49	Interactively Full-Color Changeable Electronic Fiber Sensor with High Stretchability and Rapid Response. *Advanced Functional Materials*, **2020**, 30, 2000356	15.6	35
48	Bioinspired Multifunctional Anti-icing Hydrogel. *Matter*, **2020**, 2, 723-734	12.7	66
47	Wood-Inspired Morphologically Tunable Aligned Hydrogel for High-Performance Flexible All-Solid-State Supercapacitors. *Advanced Functional Materials*, **2020**, 30, 1909133	15.6	30

46	New Insights on the Control and Function of Octopus Suckers. *Advanced Intelligent Systems*, **2020**, 2, 1900154	6	2
45	Hydrocipher: Bioinspired Dynamic Structural Color-Based Cryptographic Surface. *Advanced Optical Materials*, **2020**, 8, 1901259	8.1	30
44	Durable and ductile double-network material for dust control. *Geoderma*, **2020**, 361, 114090	6.7	20
43	Hierarchically Structured Stretchable Conductive Hydrogels for High-Performance Wearable Strain Sensors and Supercapacitors. *Matter*, **2020**, 3, 1196-1210	12.7	46
42	Bioinspired high-power-density strong contractile hydrogel by programmable elastic recoil. *Science Advances*, **2020**, 6,	14.3	50
41	Bio-Inspired Anti-Icing Surface Materials **2020**, 467-493		
40	Inorganic Photonic Microspheres with Localized Concentric Ordering for Deep Pattern Encoding and Triple Sensory Microsensor. *Small*, **2020**, 16, e2003638	11	5
39	Surfactant-free fabrication of pNIPAAm microgels in microfluidic devices. *Journal of Materials Research*, **2019**, 34, 206-213	2.5	8
38	Soft phototactic swimmer based on self-sustained hydrogel oscillator. *Science Robotics*, **2019**, 4,	18.6	140
37	Homogeneous Freestanding Luminescent Perovskite Organogel with Superior Water Stability. *Advanced Materials*, **2019**, 31, e1902928	24	23
36	Artificial phototropism for omnidirectional tracking and harvesting of light. *Nature Nanotechnology*, **2019**, 14, 1048-1055	28.7	114
35	Visualizing Morphogenesis through Instability Formation in 4-D Printing. *ACS Applied Materials & Interfaces*, **2019**, 11, 47468-47475	9.5	11
34	A Room-Temperature High-Conductivity Metal Printing Paradigm with Visible-Light Projection Lithography. *Advanced Functional Materials*, **2019**, 29, 1807615	15.6	18
33	Bioinspired structural color sensors based on responsive soft materials. *Current Opinion in Solid State and Materials Science*, **2019**, 23, 13-27	12	46
32	Bioinspired Hydrogel Interferometer for Adaptive Coloration and Chemical Sensing. *Advanced Materials*, **2018**, 30, e1800468	24	149
31	Decentralized Control of Distributed Actuation in a Segmented Soft Robot Arm **2018**,		6
30	Hydrogels: Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection (Adv. Mater. 46/2018). *Advanced Materials*, **2018**, 30, 1870352	24	3
29	Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection. *Advanced Materials*, **2018**, 30, e1804916	24	64

28	Quasi-Two-Dimensional Metal Oxide Semiconductors Based Ultrasensitive Potentiometric Biosensors. *ACS Nano*, **2017**, 11, 4710-4718	16.7	61
27	Oblique Colloidal Lithography for the Fabrication of Nonconcentric Features. *ACS Nano*, **2017**, 11, 6594-6604	16.7	11
26	Microscale Silicon Origami. *Small*, **2016**, 12, 5401-5406	11	30
25	Harnessing Cooperative Interactions between Thermoresponsive Aptamers and Gels To Trap and Release Nanoparticles. *ACS Applied Materials & Interfaces*, **2016**, 8, 30475-30483	9.5	5
24	Biomimetic Hydrogel Composites for Soil Stabilization and Contaminant Mitigation. *Environmental Science & Technology*, **2016**, 50, 12401-12410	10.3	37
23	A novel paradigm for the fabrication of highly uniform nanowire arrays using residual stress-induced patterning. *Journal of Materials Chemistry C*, **2016**, 4, 5814-5821	7.1	1
22	Computational modeling of oscillating fins that "catch and release" targeted nanoparticles in bilayer flows. *Soft Matter*, **2016**, 12, 1374-84	3.6	7
21	Hydrogel-Assisted Enzyme-Induced Carbonate Mineral Precipitation. *Journal of Materials in Civil Engineering*, **2016**, 28, 04016089	3	28
20	Simultaneous topographic and chemical patterning via imprinting defined nano-reactors. *RSC Advances*, **2016**, 6, 96538-96544	3.7	2
19	An aptamer-functionalized chemomechanically modulated biomolecule catch-and-release system. *Nature Chemistry*, **2015**, 7, 447-54	17.6	98
18	Chemo-Mechanically Regulated Oscillation of an Enzymatic Reaction. *Chemistry of Materials*, **2013**, 25, 521-523	9.6	17
17	Multifunctional actuation systems responding to chemical gradients. *Soft Matter*, **2012**, 8, 8289	3.6	11
16	Synthetic homeostatic materials with chemo-mechano-chemical self-regulation. *Nature*, **2012**, 487, 214-8	50.4	333
15	Hydrogel-actuated integrated responsive systems (HAIRS): Moving towards adaptive materials. *Current Opinion in Solid State and Materials Science*, **2011**, 15, 236-245	12	60
14	Formation of Well-Ordered Heterojunctions in Polymer:PCBM Photovoltaic Devices. *Advanced Functional Materials*, **2011**, 21, 139-146	15.6	76
13	A double droplet trap system for studying mass transport across a droplet-droplet interface. *Lab on A Chip*, **2010**, 10, 1281-5	7.2	114
12	Formation of nanopatterned polymer blends in photovoltaic devices. *Nano Letters*, **2010**, 10, 1302-7	11.5	236
11	Synthesis and characterization of low bandgap conjugated donor–acceptor polymers for polymer:PCBM solar cells. *Journal of Materials Chemistry*, **2010**, 20, 9231		27

10	Controlling nanoscale morphology in polymer photovoltaic devices. *Nano Today*, **2010**, 5, 231-242	17.9	93
9	Exploiting the superior protein resistance of polymer brushes to control single cell adhesion and polarisation at the micron scale. *Biomaterials*, **2010**, 31, 5030-41	15.6	85
8	Formation of Hierarchically Structured Thin Films. *Advanced Functional Materials*, **2009**, 19, 2236-2243	15.6	35
7	Nanopatterning via Pressure-Induced Instabilities in Thin Polymer Films. *Advanced Materials*, **2009**, 21, 2083-2087	24	10
6	Polypyrrole Microtubule Actuators for Seizing and Transferring Microparticles. *Advanced Functional Materials*, **2007**, 17, 2911-2917	15.6	46
5	Electrochemical actuator based on monolithic polypyrrole□TiO2 nanoparticle composite film. *Sensors and Actuators B: Chemical*, **2006**, 115, 488-493	8.5	37
4	Hydrogel Ionotronics with Ultra-Low Impedance and High Signal Fidelity across Broad Frequency and Temperature Ranges. *Advanced Functional Materials*,2109506	15.6	6
3	Artificial Phototropic Systems for Enhanced Light Harvesting Based on a Liquid Crystal Elastomer. *Advanced Intelligent Systems*,2000234	6	4
2	Ultrastretchable Polyaniline-Based Conductive Organogel with High Strain Sensitivity1477-1483		1
1	Toward Rapid Detection of Trace Lead and Cadmium by Anodic Stripping Voltammetry in Complex Wastewater Streams. *ACS ES&T Engineering*,		2