

# Cellulose Nanofibrils Enhanced, Strong, Stretchable, Fre Organohydrogel for Multi-Functional Sensors

Advanced Functional Materials

30, 2003430

DOI: [10.1002/adfm.202003430](https://doi.org/10.1002/adfm.202003430)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Synthesis Antifreezing and Antidehydration Organohydrogels: One-Step In-Situ Gelling versus Two-Step Solvent Displacement. <i>Polymers</i> , 2020, 12, 2670.	2.0	12
2	Facile Preparation of Eco-Friendly, Flexible Starch-Based Materials with Ionic Conductivity and Strain-Responsiveness. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 19117-19128.	3.2	27
3	The new generation of soft and wearable electronics for health monitoring in varying environment: From normal to extreme conditions. <i>Materials Today</i> , 2020, 41, 219-242.	8.3	125
4	High-performance ionic conductive poly(vinyl alcohol) hydrogels for flexible strain sensors based on a universal soaking strategy. <i>Materials Chemistry Frontiers</i> , 2021, 5, 315-323.	3.2	51
5	Electrostatic self-assembly enabled flexible paper-based humidity sensor with high sensitivity and superior durability. <i>Chemical Engineering Journal</i> , 2021, 404, 127105.	6.6	105
6	Emerging cellulose-derived materials: a promising platform for the design of flexible wearable sensors toward health and environment monitoring. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2051-2091.	3.2	54
7	Freezing-tolerant, widely detectable and ultra-sensitive composite organohydrogel for multiple sensing applications. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10127-10137.	2.7	46
8	Bioinspired, nucleobase-driven, highly resilient, and fast-responsive antifreeze ionic conductive hydrogels for durable pressure and strain sensors. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20703-20713.	5.2	55
9	Recent advances in polysaccharide-based hydrogels for synthesis and applications. <i>Aggregate</i> , 2021, 2, e21.	5.2	102
10	Biosafe, self-adhesive, recyclable, tough, and conductive hydrogels for multifunctional sensors. <i>Biomaterials Science</i> , 2021, 9, 5884-5896.	2.6	25
11	Recent progress in flexible nanocellulosic structures for wearable piezoresistive strain sensors. <i>Journal of Materials Chemistry C</i> , 2021, 9, 11001-11029.	2.7	26
12	Fully-physically crosslinked silk fibroin/poly(hydroxyethyl acrylamide) hydrogel with high transparency and adhesive properties for wireless sensing and low-temperature strain sensing. <i>Journal of Materials Chemistry C</i> , 2021, 9, 1880-1887.	2.7	34
13	A DNA-inspired hydrogel mechanoreceptor with skin-like mechanical behavior. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1835-1844.	5.2	48
14	A highly conductive hydrogel driven by phytic acid towards a wearable sensor with freezing and dehydration resistance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22615-22625.	5.2	80
15	3D Printable, Highly Stretchable, Superior Stable Ionogels Based on Poly(ionic liquid) with Hyperbranched Polymers as Macro-cross-linkers for High-Performance Strain Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 5614-5624.	4.0	76
16	Elastic, Conductive, and Mechanically Strong Hydrogels from Dual-Cross-Linked Aramid Nanofiber Composites. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 7539-7545.	4.0	25
17	An anti-freezing/drying, adhesive and self-healing motion sensor with humidity-enhanced conductivity. <i>Polymer</i> , 2021, 214, 123354.	1.8	19
18	Ultra-sensitive and Stretchable Ionic Skins for High-precision Motion Monitoring. <i>Advanced Functional Materials</i> , 2021, 31, 2010199.	7.8	60

#	ARTICLE	IF	CITATIONS
19	Topologically Enhanced Dual-Network Hydrogels with Rapid Recovery for Low-Hysteresis, Self-Adhesive Epidemic Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 12531-12540.	4.0	53
20	Ultra-Stretchable, Variable Modulus, Shape Memory Multi-Purpose Low Hysteresis Hydrogel Derived from Solvent-Induced Dynamic Micelle Sea-Island Structure. <i>Advanced Functional Materials</i> , 2021, 31, 2011259.	7.8	49
21	Simple preparation of carboxymethyl cellulose-based ionic conductive hydrogels for highly sensitive, stable and durable sensors. <i>Cellulose</i> , 2021, 28, 4253-4265.	2.4	15
22	Stretchable and self-healing polyvinyl alcohol/cellulose nanofiber nanocomposite hydrogels for strain sensors with high sensitivity and linearity. <i>Composites Communications</i> , 2021, 24, 100677.	3.3	46
23	Self-Adhesive, Stretchable, Biocompatible, and Conductive Nonvolatile Eutectogels as Wearable Conformal Strain and Pressure Sensors and Biopotential Electrodes for Precise Health Monitoring. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20735-20745.	4.0	86
24	An environment-stable hydrogel with skin-matchable performance for human-machine interface. <i>Science China Materials</i> , 2021, 64, 2313-2324.	3.5	33
25	Environment Tolerant Conductive Nanocomposite Organohydrogels as Flexible Strain Sensors and Power Sources for Sustainable Electronics. <i>Advanced Functional Materials</i> , 2021, 31, 2101696.	7.8	179
26	Ionic Conductive Organohydrogels with Dynamic Pattern Behavior and Multi-Environmental Stability. <i>Advanced Functional Materials</i> , 2021, 31, 2101464.	7.8	105
27	Wearable Antifreezing Fiber-Shaped Zn/PANI Batteries with Suppressed Zn Dendrites and Operation in Sweat Electrolytes. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17608-17617.	4.0	37
28	Strong, elastic, and tough high internal phase emulsions stabilized solely by cod myofibers for multidisciplinary applications. <i>Chemical Engineering Journal</i> , 2021, 412, 128724.	6.6	37
29	Colorimetric Ionic Organohydrogels Mimicking Human Skin for Mechanical Stimuli Sensing and Injury Visualization. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 26490-26497.	4.0	23
30	Highly Transparent, Stretchable, and Conductive Supramolecular Ionogels Integrated with Three-Dimensional Printable, Adhesive, Healable, and Recyclable Character. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25365-25373.	4.0	45
31	Environmentally Compatible Wearable Electronics Based on Ionically Conductive Organohydrogels for Health Monitoring with Thermal Compatibility, Anti-Dehydration, and Underwater Adhesion. <i>Small</i> , 2021, 17, e2101151.	5.2	70
32	A green all-polysaccharide hydrogel platform for sensing and electricity harvesting/storage. <i>Journal of Power Sources</i> , 2021, 493, 229711.	4.0	18
33	Multi-functional magnetic hydrogel: Design strategies and applications. <i>Nano Select</i> , 2021, 2, 2291-2307.	1.9	9
34	In Situ Synthesis of Mechanically Robust, Transparent Nanofiber-Reinforced Hydrogels for Highly Sensitive Multiple Sensing. <i>Advanced Functional Materials</i> , 2021, 31, 2103117.	7.8	100
35	Selected Phase Separation Renders High Strength and Toughness to Polyacrylamide/Alginate Hydrogels with Large-Scale Cross-Linking Zones. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25383-25391.	4.0	17
36	Block Copolymer-Based Supramolecular Ionogels for Accurate On-Skin Motion Monitoring. <i>Advanced Functional Materials</i> , 2021, 31, 2102386.	7.8	60

#	ARTICLE	IF	CITATIONS
37	Transparent, Conductive Hydrogels with High Mechanical Strength and Toughness. <i>Polymers</i> , 2021, 13, 2004.	2.0	13
38	Ambiently and Mechanically Stable Ionogels for Soft Ionotronics. <i>Advanced Functional Materials</i> , 2021, 31, 2102773.	7.8	95
39	Fabrication of capacitive pressure sensor with extraordinary sensitivity and wide sensing range using PAM/BIS/GO nanocomposite hydrogel and conductive fabric. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 145, 106373.	3.8	50
40	Berberine carried gelatin/sodium alginate hydrogels with antibacterial and EDTA-induced detachment performances. <i>International Journal of Biological Macromolecules</i> , 2021, 181, 1039-1046.	3.6	35
41	Deep eutectic solvents eutectogels: progress and challenges. <i>Green Chemical Engineering</i> , 2021, 2, 359-367.	3.3	54
42	Fast-Recoverable, Self-Healable, and Adhesive Nanocomposite Hydrogel Consisting of Hybrid Nanoparticles for Ultrasensitive Strain and Pressure Sensing. <i>Chemistry of Materials</i> , 2021, 33, 6146-6157.	3.2	67
43	Digital Light Processing 4D Printing of Transparent, Strong, Highly Conductive Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 36286-36294.	4.0	52
44	An Ultra-Stretchable Sensitive Hydrogel Sensor for Human Motion and Pulse Monitoring. <i>Micromachines</i> , 2021, 12, 789.	1.4	10
45	Multifunctional Hydrogels for Flexible Zinc-Based Batteries Working under Extreme Conditions. <i>Advanced Energy Materials</i> , 2021, 11, 2101749.	10.2	116
46	Mechanically Strong and Multifunctional Hybrid Hydrogels with Ultrahigh Electrical Conductivity. <i>Advanced Functional Materials</i> , 2021, 31, 2104536.	7.8	113
47	Ultra-sensitive and Ultra-stretchable Strain Sensors Based on Emulsion Gels with Broad Operating Temperature. <i>Chemistry - A European Journal</i> , 2021, 27, 13161-13171.	1.7	5
48	Stretchable and Conductive Composite Structural Color Hydrogel Films as Bionic Electronic Skins. <i>Advanced Science</i> , 2021, 8, e2102156.	5.6	111
49	Muscle-Inspired MXene Conductive Hydrogels with Anisotropy and Low-Temperature Tolerance for Wearable Flexible Sensors and Arrays. <i>Advanced Functional Materials</i> , 2021, 31, 2105264.	7.8	171
50	Hybrid double-network hydrogel for highly stretchable, excellent sensitive, stabilized, and transparent strain sensors. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2021, 32, 1548-1563.	1.9	8
51	Low-Molecular-Weight Supramolecular-Polymer Double-Network Eutectogels for Self-Adhesive and Bidirectional Sensors. <i>Advanced Functional Materials</i> , 2021, 31, 2104963.	7.8	91
52	Transparent, flexible, and multifunctional starch-based double-network hydrogels as high-performance wearable electronics. <i>Carbohydrate Polymers</i> , 2021, 267, 118198.	5.1	73
53	Wood Ionic Cable. <i>Small</i> , 2021, 17, e2008200.	5.2	10
54	Double Network Glycerol Gel: A Robust, Highly Sensitive, and Adaptive Temperature Sensor. <i>Macromolecular Materials and Engineering</i> , 2021, 306, 2100465.	1.7	3

#	ARTICLE	IF	CITATIONS
55	Sustainable isolation of nanocellulose from cellulose and lignocellulosic feedstocks: Recent progress and perspectives. <i>Carbohydrate Polymers</i> , 2021, 267, 118188.	5.1	75
56	Recent Progress in Bionic Skin Based on Conductive Polymer Gels. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100480.	2.0	29
57	Skin-Integrated Devices with Soft, Holey Architectures for Wireless Physiological Monitoring, With Applications in the Neonatal Intensive Care Unit. <i>Advanced Materials</i> , 2021, 33, e2103974.	11.1	35
58	A Highly Robust Ionotronic Fiber with Unprecedented Mechanomodulation of Ionic Conduction. <i>Advanced Materials</i> , 2021, 33, e2103755.	11.1	55
59	Water-Resistant Ionogel Electrode with Tailorable Mechanical Properties for Aquatic Ambulatory Physiological Signal Monitoring. <i>Advanced Functional Materials</i> , 2021, 31, 2107226.	7.8	83
60	A General Crosslinker Strategy to Realize Intrinsic Frozen Resistance of Hydrogels. <i>Advanced Materials</i> , 2021, 33, e2104006.	11.1	82
61	Strategy of Fabricating Flexible Strain Sensor via Layer-by-Layer Assembly of Conductive Hydrogels. <i>ACS Applied Electronic Materials</i> , 2021, 3, 3889-3897.	2.0	10
62	Flexible organohydrogel ionic skin with Ultra-Low temperature freezing resistance and Ultra-Durable moisture retention. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 396-404.	5.0	37
63	Direct-ink-writing (DIW) 3D printing functional composite materials based on supra-molecular interaction. <i>Composites Science and Technology</i> , 2021, 215, 109013.	3.8	28
64	Bioinspired interface engineering of soybean meal-based adhesive incorporated with biomineralized cellulose nanofibrils and a functional aminoclay. <i>Chemical Engineering Journal</i> , 2021, 421, 129820.	6.6	57
65	Flexible, transparent, and antibacterial ionogels toward highly sensitive strain and temperature sensors. <i>Chemical Engineering Journal</i> , 2021, 424, 130418.	6.6	119
66	Flexible, multi-functional sensor based on all-carbon sensing medium with low coupling for ultrahigh-performance strain, temperature and humidity sensing. <i>Chemical Engineering Journal</i> , 2021, 426, 130364.	6.6	30
67	Enhanced sensing and electrical performance of hierarchical porous ionic polymer-metal nanocomposite via minimizing cracks in electrode. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 837-847.	5.0	3
68	Mimicking skin cellulose hydrogels for sensor applications. <i>Chemical Engineering Journal</i> , 2022, 427, 130921.	6.6	64
69	Protein-assisted freeze-tolerant hydrogel with switchable performance toward customizable flexible sensor. <i>Chemical Engineering Journal</i> , 2022, 428, 131171.	6.6	34
70	One-pot freezing-thawing preparation of cellulose nanofibrils reinforced polyvinyl alcohol based ionic hydrogel strain sensor for human motion monitoring. <i>Carbohydrate Polymers</i> , 2022, 275, 118697.	5.1	54
71	Lignin promoted the fast formation of a robust and highly conductive deep eutectic solvent ionic gel at room temperature for a flexible quasi-solid-state supercapacitor and strain sensors. <i>Green Chemistry</i> , 2021, 23, 5120-5128.	4.6	47
72	Flexible, self-healable, adhesive and wearable hydrogel patch for colorimetric sweat detection. <i>Journal of Materials Chemistry C</i> , 2021, 9, 14938-14945.	2.7	65

#	ARTICLE	IF	CITATIONS
73	Preparation of multifunctional hydrogels with pore channels using agarose sacrificial templates and its applications. <i>Polymers for Advanced Technologies</i> , 2021, 32, 1752-1762.	1.6	7
74	Stretchable, healable, adhesive, transparent, anti-drying and anti-freezing organohydrogels toward multi-functional sensors and information platforms. <i>Journal of Materials Chemistry C</i> , 2021, 9, 15530-15541.	2.7	16
75	Towards conductive hydrogels in e-skins: a review on rational design and recent developments. <i>RSC Advances</i> , 2021, 11, 33835-33848.	1.7	14
76	Multifunctional flexible polyvinyl alcohol nanocomposite hydrogel for stress and strain sensor. <i>Journal of Nanoparticle Research</i> , 2021, 23, 1.	0.8	12
77	Honeycomb-Inspired Robust Hygroscopic Nanofibrous Cellular Networks. <i>Small Methods</i> , 2021, 5, e2101011.	4.6	11
78	Waterborne Polyurethane Enhanced, Adhesive, and Ionic Conductive Hydrogel for Multifunctional Sensors. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100457.	2.0	22
79	Rational Design of Polycationic Hydrogel with Excellent Combination Functions for Flexible Wearable Electronic Devices. <i>Macromolecular Materials and Engineering</i> , 2022, 307, 2100593.	1.7	4
80	Supramolecular-induced 2.40-130°C working-temperature-range supercapacitor aqueous electrolyte of lithium bis(trifluoromethanesulfonyl) imide in dimethyl sulfoxide-water. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1162-1172.	5.0	12
81	Superelastic, Antifreezing, Antidrying, and Conductive Organohydrogels for Wearable Strain Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 51546-51555.	4.0	35
82	Heat- and freeze-tolerant organohydrogel with enhanced ionic conductivity over a wide temperature range for highly mechanoresponsive smart paint. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2158-2168.	5.0	8
83	Nanocellulose composite gel with high ionic conductivity and long service life for flexible zinc-air battery. <i>Polymer Testing</i> , 2021, 104, 107380.	2.3	12
84	Solvent-induced in-situ self-assembly lignin nanoparticles to reinforce conductive nanocomposite organogels as anti-freezing and anti-dehydration flexible strain sensors. <i>Chemical Engineering Journal</i> , 2022, 433, 133202.	6.6	54
85	Robust conductive organohydrogel strain sensors with wide range linear sensing, UV filtering, anti-freezing and water-retention properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 632, 127823.	2.3	17
86	Preparation and characterization of anti-freezing conductive organohydrogel based on carboxyl modified polyvinyl alcohol and polypyrrole. <i>Reactive and Functional Polymers</i> , 2022, 170, 105089.	2.0	4
87	Multifunctional bacterial cellulose-based organohydrogels with long-term environmental stability. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 820-829.	5.0	21
88	Superstretchable electrode based on hierarchical assembly of triblock copolymer fiber membrane. <i>Chemical Engineering Journal</i> , 2022, 430, 132911.	6.6	9
89	Natural glycyrrhizic acid-tailored hydrogel with in-situ gradient reduction of AgNPs layer as high-performance, multi-functional, sustainable flexible sensors. <i>Chemical Engineering Journal</i> , 2022, 430, 132779.	6.6	21
90	Cooking inspired tough, adhesive, and low-temperature tolerant gluten-based organohydrogels for high performance strain sensors. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25104-25113.	5.2	24

#	ARTICLE	IF	CITATIONS
91	Biomaterial calcium-ion-mediated conductive hydrogels with high stretchability and self-adhesiveness for sensitive iontronic sensors. <i>Cell Reports Physical Science</i> , 2021, 2, 100623.	2.8	49
92	Multifunctional Organohydrogel-Based Ionic Skin for Capacitance and Temperature Sensing toward Intelligent Skin-like Devices. <i>Chemistry of Materials</i> , 2021, 33, 8623-8634.	3.2	49
93	Ultrastretchable and Self-Healing Conductors with Double Dynamic Network for Omni-Healable Capacitive Strain Sensors. <i>Nano Letters</i> , 2022, 22, 1433-1442.	4.5	24
94	Phase-selective cellulose nanofibril-based oil gelling agent for oil spill recovery. <i>Environmental Science: Nano</i> , 2022, 9, 489-498.	2.2	5
95	A UV-filtering, environmentally stable, healable and recyclable ionic hydrogel towards multifunctional flexible strain sensor. <i>Composites Part B: Engineering</i> , 2022, 230, 109528.	5.9	46
96	Reversible switching of polymeric gel structure and property by solvent exchange. <i>Science China Materials</i> , 2022, 65, 547-552.	3.5	9
97	A self-healing water-dissolvable and stretchable cellulose-hydrogel for strain sensor. <i>Cellulose</i> , 2022, 29, 341-354.	2.4	18
98	Poly(vinyl alcohol) Hydrogels: The Old and New Functional Materials. <i>International Journal of Polymer Science</i> , 2021, 2021, 1-16.	1.2	43
99	Design and performance of an ultra-sensitive and super-stretchable hydrogel for artificial skin. <i>Journal of Materials Chemistry C</i> , 2021, 9, 17042-17049.	2.7	16
100	Stretchable, adhesive, antifreezing and 3D printable double-network hydrogel for flexible strain sensors. <i>European Polymer Journal</i> , 2022, 164, 110977.	2.6	19
101	Freeze-thaw and solvent-exchange strategy to generate physically cross-linked organogels and hydrogels of curdian with tunable mechanical properties. <i>Carbohydrate Polymers</i> , 2022, 278, 119003.	5.1	29
102	Mechanically toughened conductive hydrogels with shape memory behavior toward self-healable, multi-environmental tolerant and bidirectional sensors. <i>Chemical Engineering Journal</i> , 2022, 432, 134406.	6.6	32
103	Stretchable, freezing-tolerant conductive hydrogel for wearable electronics reinforced by cellulose nanocrystals toward multiple hydrogen bonding. <i>Carbohydrate Polymers</i> , 2022, 280, 119018.	5.1	47
104	Poly (HBA-co-AMPS) based Hydrogel by P <sup>1</sup> / <sub>4</sub> SL 3D Printing for Robotic Sensor. , 2021, , .		1
105	High Performance of PVA Nanocomposite Reinforced by Janus-like Asymmetrically Oxidized Graphene: Synergetic Effect of H-bonding Interaction and Interfacial Crystallization. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022, 40, 373-383.	2.0	9
106	One-step hydrolysis for the preparation of carboxylated cellulose nanofibrils with highly stable dispersibility from pomelo peel. <i>Cellulose</i> , 2022, 29, 1609-1621.	2.4	8
107	Stretchable Unsymmetrical Piezoelectric BaTiO <sub>3</sub> Composite Hydrogel for Triboelectric Nanogenerators and Multimodal Sensors. <i>ACS Nano</i> , 2022, 16, 1661-1670.	7.3	104
108	Strategies for interface issues and challenges of neural electrodes. <i>Nanoscale</i> , 2022, 14, 3346-3366.	2.8	18

#	ARTICLE	IF	CITATIONS
109	A wide-temperature-range sensor based on wide-strain-range self-healing and adhesive organogels. <i>New Journal of Chemistry</i> , 2022, 46, 4334-4342.	1.4	4
110	Stretchable, sensitive, and environment-tolerant ionic conductive organohydrogel reinforced with cellulose nanofibers for human motion monitoring. <i>Cellulose</i> , 2022, 29, 1897-1909.	2.4	10
111	An environmentally tolerant, highly stable, cellulose nanofiber-reinforced, conductive hydrogel multifunctional sensor. <i>Carbohydrate Polymers</i> , 2022, 284, 119199.	5.1	66
112	Biocompatible Lignin-Containing Hydrogels with Self-Adhesion, Conductivity, UV Shielding, and Antioxidant Activity as Wearable Sensors. <i>ACS Applied Polymer Materials</i> , 2022, 4, 1448-1456.	2.0	26
113	Environment tolerant, adaptable and stretchable organohydrogels: preparation, optimization, and applications. <i>Materials Horizons</i> , 2022, 9, 1356-1386.	6.4	75
114	Adhesive Ionohydrogels Based on Ionic Liquid/Water Binary Solvents with Freezing Tolerance for Flexible Ionotronic Devices. <i>Chemistry of Materials</i> , 2022, 34, 1065-1077.	3.2	66
115	Highly Tough, Stretchable, and Solvent-Resistant Cellulose Nanocrystal Photonic Films for Mechanochromism and Actuator Properties. <i>Small</i> , 2022, 18, e2107105.	5.2	32
116	Stretchable, self-adhesive, conductive, anti-freezing sodium polyacrylate-based composite hydrogels for wearable flexible strain sensors. <i>Reactive and Functional Polymers</i> , 2022, 172, 105197.	2.0	15
117	Polyethylene glycol grafted chitin nanocrystals enhanced, stretchable, freezing-tolerant ionic conductive organohydrogel for strain sensors. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 155, 106813.	3.8	18
118	Stretchable freezing-tolerant triboelectric nanogenerator and strain sensor based on transparent, long-term stable, and highly conductive gelatin-based organohydrogel. <i>Nano Energy</i> , 2022, 95, 106967.	8.2	115
119	Nanoarchitectonics of Stretchable Organic Electronics Materials. <i>RSC Nanoscience and Nanotechnology</i> , 2022, , 518-545.	0.2	0
120	Tough, Antifreezing, and Conductive Hydrogel Based on Gelatin and Oxidized Dextran. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	26
121	Color-Customizable, Stretchable, Self-Healable and Degradable Ionic Gel for Variable Human Motion Detection via Strain, Pressure, and Torsion. <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	11
122	Nanocomposite Hybrid Biomass Hydrogels as Flexible Strain Sensors with Self-Healing Ability in Harsh Environments. <i>ACS Applied Polymer Materials</i> , 2022, 4, 1626-1635.	2.0	16
123	Self-Healing, Anti-Fatigue, antimicrobial ionic conductive hydrogels based on Choline-Amino acid polyionic liquids for Multi-Functional sensors. <i>Chemical Engineering Journal</i> , 2022, 435, 135168.	6.6	51
124	Tough, Repeatedly Adhesive, Cyclic Compression-Stable, and Conductive Dual-Network Hydrogel Sensors for Human Health Monitoring. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 18373-18383.	1.8	87
125	Self-Healing, Anti-Freezing Hydrogels and Its Application in Diversified Skin-Like Electronic Sensors. <i>IEEE Sensors Journal</i> , 2022, 22, 12588-12594.	2.4	8
126	Cellulose based flexible and wearable sensors for health monitoring. <i>Materials Advances</i> , 2022, 3, 3766-3783.	2.6	15



#	ARTICLE	IF	CITATIONS
127	Research Progress of Flexible Piezoresistive Sensors Prepared by Solution-Based Processing. <i>Acta Chimica Sinica</i> , 2022, 80, 214.	0.5	1
128	Highly transparent, mechanical, and self-adhesive zwitterionic conductive hydrogels with polyurethane as a cross-linker for wireless strain sensors. <i>Journal of Materials Chemistry B</i> , 2022, 10, 2933-2943.	2.9	17
129	A self-healing, recyclable and conductive gelatin/nanofibrillated cellulose/Fe <sup>3+</sup> hydrogel based on multi-dynamic interactions for a multifunctional strain sensor. <i>Materials Horizons</i> , 2022, 9, 1412-1421.	6.4	53
130	Ultra-antifreeze, ultra-stretchable, transparent, and conductive hydrogel for multi-functional flexible electronics as strain sensor and triboelectric nanogenerator. <i>Nano Research</i> , 2022, 15, 5461-5468.	5.8	42
131	Highly Conductive and Mechanically Robust Cellulose Nanocomposite Hydrogels with Antifreezing and Antidehydration Performances for Flexible Humidity Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 10886-10897.	4.0	87
132	Hierarchical Nanocellulose-Based Gel Polymer Electrolytes for Stable Na Electrodeposition in Sodium Ion Batteries. <i>Small</i> , 2022, 18, e2107183.	5.2	35
133	Freeze-Tolerant Hydrogel Electrolyte with High Strength for Stable Operation of Flexible Zinc Hybrid Supercapacitors. <i>Small</i> , 2022, 18, e2200055.	5.2	67
134	Sustainable Macromolecular Materials in Flexible Electronics. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	4
135	Synthesis and Characterization of Novel Ionochromic Tricyanofuran-Based Phenothiazine Fluorophore: Cellulose-Based Xerogel for Colorimetric Detection of Toxic Cyanides. <i>Journal of Polymers and the Environment</i> , 2022, 30, 3107-3118.	2.4	2
136	Highly Flexible and Broad-Range Mechanically Tunable All-Wood Hydrogels with Nanoscale Channels via the Hofmeister Effect for Human Motion Monitoring. <i>Nano-Micro Letters</i> , 2022, 14, 84.	14.4	31
137	Nanocellulose-templated carbon nanotube enhanced conductive organohydrogel for highly-sensitive strain and temperature sensors. <i>Cellulose</i> , 2022, 29, 3829-3844.	2.4	18
138	A Bilayer Skin-Inspired Hydrogel with Strong Bonding Interface. <i>Nanomaterials</i> , 2022, 12, 1137.	1.9	5
139	Eutectic Electrolytes Chemistry for Rechargeable Zn Batteries. <i>Small</i> , 2022, 18, e2200550.	5.2	40
140	Ultradurable Noncovalent Cross-Linked Hydrogels with Low Hysteresis and Robust Elasticity for Flexible Electronics. <i>Chemistry of Materials</i> , 2022, 34, 3311-3322.	3.2	46
141	Freeze-Resistant, Conductive, and Robust Eutectogels of Metal Salt-Based Deep Eutectic Solvents with Poly(vinyl alcohol). <i>ACS Applied Polymer Materials</i> , 2022, 4, 2057-2064.	2.0	22
142	Multifunctional Superelastic, Superhydrophilic, and Ultralight Nanocellulose-Based Composite Carbon Aerogels for Compressive Supercapacitor and Strain Sensor. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	199
143	A Wearable Strain Sensor Based on Electroconductive Hydrogel Composites for Human Motion Detection. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	1.7	12
144	Superstrong yet water-detachable eutectogel adhesives. <i>Chemical Engineering Journal</i> , 2022, 442, 136289.	6.6	20

#	ARTICLE	IF	CITATIONS
145	Tough and extremely temperature-tolerance nanocomposite organohydrogels as ultrasensitive wearable sensors for wireless human motion monitoring. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 157, 106905.	3.8	13
146	A solvent-exchange strategy to develop stiff and tough hydrogel electrolytes for flexible and stable supercapacitor. <i>Journal of Power Sources</i> , 2022, 532, 231326.	4.0	22
147	Ultra-stretchable and anti-freezing conductive organohydrogel reinforced with ionic clusters for wearable strain sensors. <i>Sensors and Actuators B: Chemical</i> , 2022, 362, 131796.	4.0	11
148	Ultra-stretchable, adhesive, and self-healing MXene/polyampholytes hydrogel as flexible and wearable epidermal sensors. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 645, 128897.	2.3	32
149	High-strain sensitive zwitterionic hydrogels with swelling-resistant and controllable rehydration for sustainable wearable sensor. <i>Journal of Colloid and Interface Science</i> , 2022, 620, 14-23.	5.0	16
150	Mutually Noninterfering Flexible Pressure-Temperature Dual-Modal Sensors Based on Conductive Metal-Organic Framework for Electronic Skin. <i>ACS Nano</i> , 2022, 16, 473-484.	7.3	49
151	Highly Strong, Tough, and Stretchable Conductive Hydrogels Based on Silk Sericin-Mediated Multiple Physical Interactions for Flexible Sensors. <i>ACS Applied Polymer Materials</i> , 2022, 4, 618-626.	2.0	29
152	Ultrastretchable, Adhesive, Fast Self-Healable, and Three-Dimensional Printable Photoluminescent Ionic Skin Based on Hybrid Network Ionogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 2029-2037.	4.0	54
153	Anionic organo-hydrogel electrolyte with enhanced ionic conductivity and balanced mechanical properties for flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2022, 10, 11277-11287.	5.2	33
154	Plant-inspired conductive adhesive organohydrogel with extreme environmental tolerance as a wearable dressing for multifunctional sensors. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 215, 112509.	2.5	22
155	Highly mechanical properties, anti-freezing, and ionic conductive organohydrogel for wearable sensors. <i>Reactive and Functional Polymers</i> , 2022, 175, 105267.	2.0	5
156	Ultrastretchable, self-healable and adhesive composite organohydrogels with a fast response for human-machine interface applications. <i>Journal of Materials Chemistry C</i> , 2022, 10, 8266-8277.	2.7	36
157	Transparent stretchable hydrogel sensors: materials, design and applications. <i>Journal of Materials Chemistry C</i> , 2022, 10, 13351-13371.	2.7	42
158	Nanocage Ferritin Reinforced Polyacrylamide Hydrogel for Wearable Flexible Strain Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 21278-21286.	4.0	30
159	Recent developments in biomass derived cellulose aerogel materials for thermal insulation application: a review. <i>Cellulose</i> , 2022, 29, 4805-4833.	2.4	39
160	Tough and Ultrastretchable Liquid-Free Ion Conductor Strengthened by Deep Eutectic Solvent Hydrolyzed Cellulose Microfibers. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	48
161	All-Starch-Based Hydrogel for Flexible Electronics: Strain-Sensitive Batteries and Self-Powered Sensors. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6724-6735.	3.2	34
162	Ionically conductive gelatin-based hybrid composite hydrogels with high mechanical strength, self-healing, and freezing-tolerant properties. <i>European Polymer Journal</i> , 2022, 172, 111230.	2.6	10

#	ARTICLE	IF	CITATIONS
163	Skin-Inspired Packaging of Injectable Hydrogel Sensors Enabled by Photopolymerizable and Swellable Hydrogels toward Sustainable Electronics. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6657-6666.	3.2	12
164	Highly stretchable, durable, and transient conductive hydrogel for multi-functional sensor and signal transmission applications. <i>Nano Energy</i> , 2022, 99, 107374.	8.2	53
165	Mechanically Robust, Antifatigue, and Temperature-Tolerant Nanocomposite Ionogels Enabled by Hydrogen Bonding as Wearable Sensors. <i>ACS Applied Polymer Materials</i> , 2022, 4, 4189-4198.	2.0	10
166	A multiscale biomimetic strategy to design strong, tough hydrogels by tuning the self-assembly behavior of cellulose. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13685-13696.	5.2	46
167	A flexible supercapacitor with high capacitance retention at an ultra-low temperature of -65.0°C. <i>Electrochimica Acta</i> , 2022, 424, 140644.	2.6	11
168	Low-temperature resistant gel polymer electrolytes for zinc-air batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 19304-19319.	5.2	31
169	Super Stretchable, Self-Healing, Adhesive Ionic Conductive Hydrogels Based on Tailor-Made Ionic Liquid for High-Performance Strain Sensors. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	148
170	Autonomous Self-Healing of Highly Stretchable Supercapacitors at All Climates. <i>Nano Letters</i> , 2022, 22, 6444-6453.	4.5	15
171	Superior, Environmentally Tolerant, Flexible, and Adhesive Poly(ionic liquid) Gel as a Multifaceted Underwater Sensor. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 29273-29283.	4.0	28
172	Patterned Magnetofluids via Magnetic Printing and Photopolymerization for Multifunctional Flexible Electronic Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 30332-30342.	4.0	1
173	A high-conductive, anti-freezing, antibacterial and anti-swelling starch-based physical hydrogel for multifunctional flexible wearable sensors. <i>International Journal of Biological Macromolecules</i> , 2022, 213, 791-803.	3.6	28
174	A hydrogel sensor driven by sodium carboxymethyl starch with synergistic enhancement of toughness and conductivity. <i>Journal of Materials Chemistry B</i> , 2022, 10, 5743-5752.	2.9	11
175	Anti-freezing, conductive and shape memory ionic glycerol-hydrogels with synchronous sensing and actuating properties for soft robotics. <i>Journal of Materials Chemistry A</i> , 2022, 10, 16095-16105.	5.2	23
176	Progress in the mechanical enhancement of hydrogels: Fabrication strategies and underlying mechanisms. <i>Journal of Polymer Science</i> , 2022, 60, 2525-2542.	2.0	45
177	Highly sensitive strain sensors with wide operation range from strong MXene-composited polyvinyl alcohol/sodium carboxymethylcellulose double network hydrogel. <i>Advanced Composites and Hybrid Materials</i> , 2022, 5, 1976-1987.	9.9	112
178	Ultra-stretchable, self-healable, and reprocessable ionic conductive hydrogels enabled by dual dynamic networks. <i>Journal of Polymer Science</i> , 2022, 60, 2817-2827.	2.0	5
179	A cellulose nanofibril-reinforced hydrogel with robust mechanical, self-healing, pH-responsive and antibacterial characteristics for wound dressing applications. <i>Journal of Nanobiotechnology</i> , 2022, 20, .	4.2	36
180	Strong-Weak Response Network-Enabled Ionic Conductive Hydrogels with High Stretchability, Self-Healability, and Self-Adhesion for Ionic Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 32551-32560.	4.0	16

#	ARTICLE	IF	CITATIONS
181	A strong, ultrastretchable, antifreezing and high sensitive strain sensor based on ionic conductive fiber reinforced organohydrogel. <i>Composites Part B: Engineering</i> , 2022, 243, 110116.	5.9	23
182	In situ synthesis of highly stretchable, freeze-tolerant silk-polyelectrolyte double-network hydrogels for multifunctional flexible sensing. <i>Chemical Engineering Journal</i> , 2022, 446, 137405.	6.6	35
183	Dual-network polyacrylamide/carboxymethyl chitosan-grafted-polyaniline conductive hydrogels for wearable strain sensors. <i>Carbohydrate Polymers</i> , 2022, 295, 119848.	5.1	49
184	Luminescent composite organohydrogels with Fe <sup>3+</sup> , pH, and glucose-dependent shape memory behavior accompanied with diverse fluorescence variation. <i>Chemical Engineering Journal</i> , 2022, 450, 137930.	6.6	3
185	Antifreezing, Ionically Conductive, Transparent, and Antidrying Carboxymethyl Chitosan Self-Healing Hydrogels as Multifunctional Sensors. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 3633-3643.	2.6	12
186	High-Sensitivity and Extreme Environment-Resistant Sensors Based on PEDOT:PSS@PVA Hydrogel Fibers for Physiological Monitoring. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 35114-35125.	4.0	29
187	Self-Healable, recyclable, ultrastretchable, and high-performance NO <sub>2</sub> sensors based on an organohydrogel for room and sub-zero temperature and wireless operation. <i>SmartMat</i> , 2023, 4, .	6.4	36
188	Strong Tough Conductive Hydrogels via the Synergy of Ion-Induced Cross-Linking and Salting-Out. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	89
189	A cellulose-based self-healing composite eutectogel with reversibility and recyclability for multi-sensing. <i>Composites Science and Technology</i> , 2022, 229, 109696.	3.8	8
190	Highly Conductive, Transparent, Adhesive, and Self-Healable Ionogel Based on a Deep Eutectic Solvent with Widely Adjustable Mechanical Strength. <i>Macromolecular Rapid Communications</i> , 2022, 43, .	2.0	7
191	Bioinspired Freeze-Tolerant Soft Materials: Design, Properties, and Applications. <i>Small</i> , 2022, 18, .	5.2	29
192	Strong and Tough Physical Eutectogels Regulated by the Spatiotemporal Expression of Non-Covalent Interactions. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	45
193	From carbon nanotubes to ultra-sensitive, extremely-stretchable and self-healable hydrogels. <i>European Polymer Journal</i> , 2022, 178, 111485.	2.6	12
194	Multiple hydrogen bonds reinforced conductive hydrogels with robust elasticity and ultra-durability as multifunctional ionic skins. <i>Chemical Engineering Journal</i> , 2023, 451, 138525.	6.6	33
195	Preparation and properties of cellulose nanofibers/zirconium phosphate nanosheets composite polyvinyl alcohol ionic conductive organohydrogel and its application in strain sensors. <i>Journal of Applied Polymer Science</i> , 2022, 139, .	1.3	3
196	HNTs@HKUST-1 strengthened PAAm hydrogel for strain sensing and antibacterial application. <i>Microporous and Mesoporous Materials</i> , 2022, 344, 112207.	2.2	7
197	Design of co-continuous structure of cellulose/PAA-based alkaline solid polyelectrolyte for flexible zinc-air battery. <i>International Journal of Biological Macromolecules</i> , 2022, 221, 446-455.	3.6	8
198	Highly tough and ionic conductive starch/poly(vinyl alcohol) hydrogels based on a universal soaking strategy. <i>International Journal of Biological Macromolecules</i> , 2022, 221, 1002-1011.	3.6	14

#	ARTICLE	IF	CITATIONS
199	Mechanically ductile, ionically conductive and low-temperature tolerant hydrogel enabled by high-concentration saline towards flexible strain sensor. <i>Nano Energy</i> , 2022, 103, 107789.	8.2	52
200	Tough, antifreezing, and conductive double network zwitterionic-based hydrogel for flexible sensors. <i>Chemical Engineering Journal</i> , 2023, 452, 139314.	6.6	40
201	MXene reinforced organohydrogels with ultra-stability, high sensitivity and anti-freezing ability for flexible strain sensors. <i>Journal of Materials Chemistry C</i> , 2022, 10, 11914-11923.	2.7	26
202	A multifunctional sustainable ionohydrogel with excellent low-hysteresis-driven mechanical performance, environmental tolerance, multimodal stimuli-responsiveness, and power generation ability for wearable electronics. <i>Journal of Materials Chemistry A</i> , 2022, 10, 17464-17476.	5.2	25
203	Materials development in stretchable iontronics. <i>Soft Matter</i> , 2022, 18, 6487-6510.	1.2	8
204	Cellulose nanocrystal reinforced conductive hydrogels with anti-freezing properties for strain sensors. <i>New Journal of Chemistry</i> , 2022, 46, 20900-20908.	1.4	5
205	Ultrahigh ionic conductivity and alkaline tolerance of poly(amidoxime)-based hydrogel for high performance piezoresistive sensor. <i>Chemical Engineering Journal</i> , 2023, 452, 139208.	6.6	14
206	Stretchable and tough tannic acid-modified graphene oxide/ polyvinyl alcohol conductive hydrogels for strain and pressure sensors. <i>AIP Advances</i> , 2022, 12, .	0.6	4
207	Alginate Fiber-Enhanced Poly(vinyl alcohol) Hydrogels with Superior Lubricating Property and Biocompatibility. <i>Polymers</i> , 2022, 14, 4063.	2.0	7
208	Anti-Freezing Nanocomposite Organohydrogels with High Strength and Toughness. <i>Polymers</i> , 2022, 14, 3721.	2.0	1
209	Bioinspired Chromotropic Ionic Skin with In-plane Strain/Temperature/Pressure Multimodal Sensing and Ultrahigh Stimuli Discriminability. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	33
210	A Room-Temperature Chloride-Conducting Metal-Organic Crystal [Al( <sub>6</sub> )Cl <sub>3</sub> ] for Potential Solid-State Chloride-Shuttle Batteries. <i>Energy and Environmental Materials</i> , 2024, 7, .	7.3	3
211	High strength, anti-freezing, and conductive poly(vinyl alcohol)/urea ionic hydrogels as soft sensor. <i>Polymer Engineering and Science</i> , 2022, 62, 3985-3993.	1.5	8
212	From grape seed extracts to extremely stable strain sensors with freezing tolerance, drying resistance and anti-oxidation properties. <i>Materials Today Communications</i> , 2022, 33, 104551.	0.9	2
213	A recyclable, adhesive and fast self-healable ionic conducting elastomer based on a poly-zwitterionic liquid for soft iontronics. <i>Journal of Materials Chemistry A</i> , 2022, 10, 24581-24589.	5.2	6
214	Carbon nanotube-enhanced nanocomposite organohydrogel based on a physically cross-linked double network for sensitive wearable sensors. <i>Journal of Materials Chemistry C</i> , 2022, 10, 16546-16555.	2.7	2
215	High lignin-containing nanocelluloses prepared <i>via</i> TEMPO-mediated oxidation and polyethylenimine functionalization for antioxidant and antibacterial applications. <i>RSC Advances</i> , 2022, 12, 30030-30040.	1.7	3
216	An energy-saving, bending sensitive, and self-healing PVA-borax-IL ternary hydrogel electrolyte for visual flexible electrochromic strain sensors. <i>Journal of Materials Chemistry A</i> , 2022, 10, 25118-25128.	5.2	14

#	ARTICLE	IF	CITATIONS
217	Tunable and Self-Healing Properties of Polysaccharide-Based Hydrogels through Polymer Architecture Modulation. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 14053-14063.	3.2	16
218	Recent developments of polysaccharide-based double-network hydrogels. <i>Journal of Polymer Science</i> , 2023, 61, 7-43.	2.0	20
219	A $\beta$ -Carrageenan-Containing Organohydrogel with Adjustable Transmittance for an Antifreezing, Nondrying, and Solvent-Resistant Strain Sensor. <i>Biomacromolecules</i> , 2022, 23, 4872-4882.	2.6	9
220	Molecular Design and Preparation of Protein-Based Soft Ionic Conductors with Tunable Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 48061-48071.	4.0	0
221	High Performance Conductive Hydrogel for Strain Sensing Applications and Digital Image Mapping. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 51341-51350.	4.0	15
222	Ultrastretchable Ionogel with Extreme Environmental Resilience through Controlled Hydration Interactions. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	54
223	Gelatin/polyacrylamide ionic conductive hydrogel with skin temperature-triggered adhesion for human motion sensing and body heat harvesting. <i>Nano Energy</i> , 2022, 104, 107977.	8.2	43
224	Acetylated Distarch Phosphate-Mediated Tough and Conductive Hydrogel for Antibacterial Wearable Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 51420-51428.	4.0	11
225	A high-strength, environmentally stable, self-healable, and recyclable starch/PVA organohydrogel for strain sensor. <i>European Polymer Journal</i> , 2022, 181, 111650.	2.6	17
226	A toughened, transparent, anti-freezing and solvent-resistant hydrogel towards environmentally tolerant strain sensor and soft connection. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2023, 656, 130390.	2.3	8
227	Hydrogel electrolyte based on sodium polyacrylate/KOH hydrogel reinforced with bacterial cellulose aerogel for flexible supercapacitors. <i>Chemical Engineering Journal</i> , 2023, 454, 140090.	6.6	4
228	Biopolymer "A sustainable and efficacious material system for effluent removal. <i>Journal of Hazardous Materials</i> , 2023, 443, 130168.	6.5	41
229	Toughened, self-healing and self-adhesive conductive gels with extraordinary temperature adaptability for dual-responsive sensors. <i>Journal of Materials Chemistry A</i> , 2022, 10, 25527-25538.	5.2	10
230	Hydrogel-based printing strategy for high-performance flexible thermoelectric generators. <i>Nanoscale</i> , 2022, 14, 16857-16864.	2.8	2
231	Stretchable strain sensor of composite hydrogels with high fatigue resistance and low hysteresis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 25564-25574.	5.2	21
232	Bioinspired Gradient Poly(ionic liquid) Ionogels for Ionic Skins with an Ultrawide Pressure Detection Range. , 2022, 4, 2459-2468.		12
233	Advances and challenges of cellulose functional materials in sensors. <i>Journal of Bioresources and Bioproducts</i> , 2023, 8, 15-32.	11.8	14
234	Highly Stretchable, Self-Healing, and Low Temperature Resistant Double Network Hydrogel Ionic Conductor as Flexible Sensor and Quasi-Solid Electrolyte. <i>Macromolecular Rapid Communications</i> , 2023, 44, .	2.0	7

#	ARTICLE	IF	CITATIONS
235	Rarely negative-thermovoltage cellulose ionogel with simultaneously boosted mechanical strength and ionic conductivity <i>via</i> ion-molecular engineering. <i>Journal of Materials Chemistry A</i> , 2023, 11, 2145-2154.	5.2	16
236	Skin-mimicking strategy to fabricate strong and highly conductive anti-freezing cellulose-based hydrogels as strain sensors. <i>International Journal of Biological Macromolecules</i> , 2023, 227, 462-471.	3.6	16
237	A cellulose/bentonite grafted polyacrylic acid hydrogel for highly-efficient removal of Cd(II). <i>Journal of Water Process Engineering</i> , 2023, 51, 103414.	2.6	12
238	Perspective Chapter: Tissue-Electronics Interfaces. , 0, , .		5
239	Wood Robot with Magnetic Anisotropy for Programmable Locomotion. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	5
240	Transparent, Ultra-Stretching, Tough, Adhesive Carboxyethyl Chitin/Polyacrylamide Hydrogel Toward High-Performance Soft Electronics. <i>Nano-Micro Letters</i> , 2023, 15, .	14.4	38
241	Structural Color Ionic Hydrogel Patches for Wound Management. <i>ACS Nano</i> , 2023, 17, 1437-1447.	7.3	19
242	Ultrastretchable Composite Organohydrogels with Dual Cross-Links Enabling Multimodal Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 55143-55154.	4.0	13
243	High Multi-Environmental Mechanical Stability and Adhesive Transparent Ionic Conductive Hydrogels Used as Smart Wearable Devices. <i>Polymers</i> , 2022, 14, 5316.	2.0	4
244	Stretchable One-Dimensional Conductors for Wearable Applications. <i>ACS Nano</i> , 2022, 16, 19810-19839.	7.3	21
245	Three-dimensional printing of soft hydrogel electronics. <i>Nature Electronics</i> , 2022, 5, 893-903.	13.1	51
246	3D Printing of Mechanically Elastic, Self-Adhesive, and Biocompatible Organohydrogels for Wearable and Breathable Strain Sensors. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	5
247	High-Performance Strain Sensors Based on Organohydrogel Microsphere Film for Wearable Human-Computer Interfacing. <i>Advanced Science</i> , 2023, 10, .	5.6	43
248	Wide temperature range- and damage-tolerant microsupercapacitors from salt-tolerant, anti-freezing and self-healing organohydrogel via dynamic bonds modulation. <i>Journal of Energy Chemistry</i> , 2023, 78, 283-293.	7.1	5
249	Humanoid Ionotronic Skin for Smart Object Recognition and Sorting. , 2023, 5, 189-201.		13
250	Simultaneously Stretchable and Compressible Flexible Strain Sensors Based on Carbon Nanotube Composites for Motion Monitoring and Human-Computer Interactions. <i>ACS Applied Nano Materials</i> , 2022, 5, 18427-18437.	2.4	11
251	Environmentally Stable, Stretchable, Adhesive, and Conductive Organohydrogels with Multiple Dynamic Interactions as High-Performance Strain and Temperature Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 55075-55087.	4.0	10
252	Balancing the Overall Performance of Poly(vinyl alcohol)/MXene Composite Organohydrogels for Flexible Strain Sensors. <i>ACS Applied Polymer Materials</i> , 2023, 5, 370-380.	2.0	4

#	ARTICLE	IF	CITATIONS
253	Bioinspired robust yet regenerable nanofibrous polymer brushes for broad-spectrum antifouling. <i>Chemical Engineering Journal</i> , 2023, 458, 141475.	6.6	4
254	Construction and characterization of highly stretchable ionic conductive hydrogels for flexible sensors with good anti-freezing performance. <i>European Polymer Journal</i> , 2023, 186, 111827.	2.6	7
255	One-step coaxial spinning of core-sheath hydrogel fibers for stretchable ionic strain sensors. <i>Chemical Engineering Journal</i> , 2023, 458, 141393.	6.6	11
256	Self-healing and wide temperature tolerant flexible supercapacitor based on ternary-network organo-hydrogel electrolyte. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 13264-13275.	3.8	4
257	High-Performance Zwitterionic Organohydrogel Fiber in Bioelectronics for Monitoring Bioinformation. <i>Biosensors</i> , 2023, 13, 115.	2.3	0
258	3D-printable and multifunctional conductive nanocomposite with tunable mechanics inspired by sesame candy. <i>Nano Energy</i> , 2023, 108, 108166.	8.2	3
259	Tough hydrogel-elastomer hybrids hydrophobically regulated by an MXene for motion monitoring in harsh environments. <i>Journal of Materials Chemistry C</i> , 2023, 11, 2688-2694.	2.7	5
260	Hofmeister Effect Assisted Dual-Dynamic Bond Cross-Linked Organohydrogels with Enhanced Ionic Conductivity and Balanced Mechanical Properties for Flexible Sensors. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	21
261	Super-anti-freezing, tough and adhesive titanium carbide and L-ornithine-enhanced hydrogels. <i>Journal of Bioresources and Bioproducts</i> , 2023, 8, 136-145.	11.8	4
262	Porous Scaffolds Based on Polydopamine/Chondroitin Sulfate/Polyvinyl Alcohol Composite Hydrogels. <i>Polymers</i> , 2023, 15, 271.	2.0	9
263	A multifunctional structural coloured electronic skin monitoring body motion and temperature. <i>Soft Matter</i> , 2023, 19, 361-365.	1.2	3
264	Mixed solvent exchange enabled high-performance polymeric gels. <i>Polymer</i> , 2023, 267, 125661.	1.8	5
265	Highly stretchable, adhesive, and biocompatible hydrogel platforms of tannic acid functionalized spherical nanocellulose for strain sensors. <i>International Journal of Biological Macromolecules</i> , 2023, 229, 105-122.	3.6	7
266	A flexible Zn-ion capacitor based on wood derived porous carbon and polyacrylamide/cellulose nanofiber hydrogel. <i>Industrial Crops and Products</i> , 2023, 193, 116216.	2.5	10
267	A Review on Thermal Properties of Hydrogels for Electronic Devices Applications. <i>Gels</i> , 2023, 9, 7.	2.1	10
268	Mechanically Strong, Freeze-Resistant, and Ionically Conductive Organohydrogels for Flexible Strain Sensors and Batteries. <i>Advanced Science</i> , 2023, 10, .	5.6	32
269	Multifunctional Antifreezing Organogel Polyelectrolyte for a Flexible Supercapacitor. <i>ACS Applied Energy Materials</i> , 2023, 6, 1501-1510.	2.5	5
270	Dialcohol Cellulose Nanocrystals Enhanced Polymerizable Deep Eutectic Solvent-Based Self-Healing Ion Conductors with Ultra-Stretchability and Sensitivity. , 2023, 2, .		3



#	ARTICLE	IF	CITATIONS
271	Mechanically Robust and Transparent Organohydrogel-Based Skin Nanoengineered from Natural Skin. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	45
272	Key approaches and challenges in fabricating advanced flexible zinc-ion batteries with functional hydrogel electrolytes. <i>Energy Storage Materials</i> , 2023, 56, 351-393.	9.5	32
273	3D Printed Ionogels In Sensors. <i>Polymer-Plastics Technology and Materials</i> , 2023, 62, 632-654.	0.6	1
274	Muscle Contraction-Inspired Tough Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 8462-8470.	4.0	8
275	Biomimetic Spun Silk Ionotronic Fibers for Intelligent Discrimination of Motions and Tactile Stimuli. <i>Advanced Materials</i> , 2023, 35, .	11.1	8
276	Stretchable, conductive and anti-freezing poly (vinyl alcohol)-based organo-hydrogels for strain sensors. <i>Sensors and Actuators A: Physical</i> , 2023, 353, 114223.	2.0	3
277	Ionic Flexible Mechanical Sensors: Mechanisms, Structural Engineering, Applications, and Challenges. , 2023, 2, .		0
278	Correlation between solvent composition and materials properties of organohydrogels prepared by solvent displacement. <i>Macromolecular Research</i> , 2023, 31, 615-623.	1.0	1
279	Sustainable, Insoluble, and Photonic Cellulose Nanocrystal Patches for Calcium Ion Sensing in Sweat. <i>Small</i> , 2023, 19, .	5.2	3
280	Polyacrylamide-Chitosan based magnetic hydrogels with high stiffness and ultra-toughness. <i>Composites Part A: Applied Science and Manufacturing</i> , 2023, 168, 107478.	3.8	5
281	Super tough, stretchable and transparent ionic conductive hydrogel for flexible sensor with excellent temperature tolerance. <i>Reactive and Functional Polymers</i> , 2023, 186, 105572.	2.0	5
282	High strength, anti-freezing and conductive silkworm excrement cellulose-based ionic hydrogel with physical-chemical double cross-linked for pressure sensing. <i>International Journal of Biological Macromolecules</i> , 2023, 236, 123936.	3.6	8
283	Stretchable conductive hydrogel with super resistance-strain stability and ultrahigh durability enabled by specificity crosslinking strategy for high-performance flexible electronics. <i>Chemical Engineering Journal</i> , 2023, 465, 142828.	6.6	6
284	All-solid-state Ti3C2Tx neutral symmetric fiber supercapacitors with high energy density and wide temperature range. <i>Journal of Colloid and Interface Science</i> , 2023, 643, 92-101.	5.0	6
285	Self-healing, self-adhesive, and stretchable conductive hydrogel for multifunctional sensor prepared by catechol modified nanocellulose stabilized poly( $\pm$ -thioctic acid). <i>Carbohydrate Polymers</i> , 2023, 313, 120813.	5.1	20
286	A super-tough ionic conductive hydrogel with anti-freezing, water retention, and self-regenerated properties for self-powered flexible sensor. <i>Applied Materials Today</i> , 2023, 32, 101820.	2.3	6
287	Facile fabrication of strong and conductive cellulose hydrogels with wide temperature tolerance for flexible sensors. <i>International Journal of Biological Macromolecules</i> , 2023, 240, 124438.	3.6	10
288	Polyacrylamide gel electrolyte for high-performance quasi-solid-state electrochromic devices. <i>Solar Energy Materials and Solar Cells</i> , 2023, 256, 112310.	3.0	9

#	ARTICLE	IF	CITATIONS
289	Highly conductive and anti-freezing cellulose hydrogel for flexible sensors. <i>International Journal of Biological Macromolecules</i> , 2023, 230, 123425.	3.6	24
290	Electrolytes in Organic Batteries. <i>Chemical Reviews</i> , 2023, 123, 1712-1773.	23.0	57
291	Electrically Detaching Behavior and Mechanism of Ionic Conductive Adhesives. <i>Chinese Journal of Polymer Science (English Edition)</i> , 0, , .	2.0	1
292	Tough, Healable, and Sensitive Strain Sensor Based on Multiphysically Cross-Linked Hydrogel for Ionic Skin. <i>Biomacromolecules</i> , 2023, 24, 1287-1298.	2.6	17
293	Rapid room-temperature polymerization strategy to prepare organic/inorganic hybrid conductive organohydrogel for terahertz wave responsiveness. <i>Chemical Engineering Journal</i> , 2023, 461, 141856.	6.6	5
294	Nanomaterials-enhanced, stretchable, self-healing, temperature-tolerant and adhesive tough organohydrogels with long-term durability as flexible sensors for intelligent motion-speech recognition. <i>Chemical Engineering Journal</i> , 2023, 461, 141905.	6.6	16
295	Dual Physically Crosslinked Silk Fibroin Ionoelastomer with Ultrahigh Stretchability and Low Hysteresis. <i>Chemistry of Materials</i> , 2023, 35, 1752-1761.	3.2	3
296	Advanced Flexible Materials from Nanocellulose. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	24
297	Cellulose Gel Mechanoreceptors – Principles, Applications and Prospects. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	9
298	Environment-tolerant ionic hydrogel-elastomer hybrids with robust interfaces, high transparency, and biocompatibility for a mechanical-thermal multimode sensor. <i>Informa-Materially</i> , 2023, 5, .	8.5	39
299	Ionic skin: from imitating natural skin to beyond. , 2023, 1, 224-239.		10
300	Cellulose-based Conductive Gels and Their Applications. <i>ChemNanoMat</i> , 2023, 9, .	1.5	6
301	Multi-physics coupling reinforced polyvinyl alcohol/cellulose nanofibrils based multifunctional hydrogel sensor for human motion monitoring. <i>International Journal of Biological Macromolecules</i> , 2023, 235, 123841.	3.6	5
302	Anisotropic double-network hydrogels integrated superior performance of strength, toughness and conductivity for flexible multi-functional sensors. <i>Chemical Engineering Journal</i> , 2023, 462, 142226.	6.6	16
303	Nanocomposite conductive hydrogels with Robust elasticity and multifunctional responsiveness for flexible sensing and wound monitoring. <i>Materials Horizons</i> , 2023, 10, 2096-2108.	6.4	18
304	Ultra-stretchable, high-adhesive, self-healable and remoldable hydrogel sensor with dynamic multi-interactions for multiscale motion detection, Braille transmission and temperature monitoring. <i>Chemical Engineering Journal</i> , 2023, 462, 142305.	6.6	13
305	Entanglement in Smart Hydrogels: Fast Response Time, Anti-Freezing and Anti-Drying. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	18
306	Dual Network Hydrogel with High Mechanical Properties, Electrical Conductivity, Water Retention and Frost Resistance, Suitable for Wearable Strain Sensors. <i>Gels</i> , 2023, 9, 224.	2.1	1

#	ARTICLE	IF	CITATIONS
307	Development of Antifreezing, Printable, Adhesive, Tough, Biocompatible, High-Water Content Hydrogel for Versatile Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 16034-16045.	4.0	6
308	An Anti-Freezing Hydrogel Electrolyte for Flexible Zinc-Ion Batteries Operating at $\sim 70^{\circ}\text{C}$ . <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	30
309	Recent Progress of Biomaterials-Based Epidermal Electronics for Healthcare Monitoring and Human-Machine Interaction. <i>Biosensors</i> , 2023, 13, 393.	2.3	8
310	Functional Enhancement of Guar Gum-Based Hydrogel by Polydopamine and Nanocellulose. <i>Foods</i> , 2023, 12, 1304.	1.9	1
311	Designing Superhydrophilic Hydrogels as Binder-Free Catalysts for Enhanced Oxygen Evolution Performance. <i>Industrial &amp; Engineering Chemistry Research</i> , 2023, 62, 5543-5551.	1.8	0
312	Strong and Tough Cellulose Hydrogels via Solution Annealing and Dual Cross-Linking. <i>Small</i> , 2023, 19, .	5.2	5
313	Dialdehyde Cellulose Solution as Reducing Agent: Preparation of Uniform Silver Nanoparticles and In Situ Synthesis of Antibacterial Composite Films with High Barrier Properties. <i>Molecules</i> , 2023, 28, 2956.	1.7	2
314	Anhydrous Thermogalvanic Gel for Simultaneous Waste Heat Recovery and Thermal Management of Electronics. <i>ACS Applied Polymer Materials</i> , 2023, 5, 4628-4635.	2.0	5
315	Hydrogen bond regulating in hydrogel electrolytes for enhancing the antifreeze ability of a flexible zinc-ion hybrid supercapacitor. <i>Sustainable Energy and Fuels</i> , 0, , .	2.5	1
316	Reinforcement of Nanocomposite Hydrogel with Dialdehyde Cellulose Nanofibrils via Physical and Double Network Crosslinking Synergies. <i>Polymers</i> , 2023, 15, 1765.	2.0	4
317	Ultrastretchable High-Conductivity MXene-Based Organohydrogels for Human Health Monitoring and Machine-Learning-Assisted Recognition. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 19435-19446.	4.0	22
318	Skin-Inspired Ultra-Tough Supramolecular Multifunctional Hydrogel Electronic Skin for Human-Machine Interaction. <i>Nano-Micro Letters</i> , 2023, 15, .	14.4	31
319	Construction of MXene functionalized wood-based hydrogels using $\text{ZnCl}_2$ aqueous solution for flexible electronics. <i>Journal of Materials Chemistry A</i> , 2023, 11, 10337-10345.	5.2	6
320	Construction of Alkaline Gel Polymer Electrolytes with a Double Cross-Linked Network for Flexible Zinc-Air Batteries. <i>ACS Applied Polymer Materials</i> , 2023, 5, 3622-3631.	2.0	2
321	Environmentally adaptive polysaccharide-based hydrogels and their applications in extreme conditions: A review. <i>International Journal of Biological Macromolecules</i> , 2023, 241, 124496.	3.6	2
338	Highly adhesive chitosan/poly(vinyl alcohol) hydrogels via the synergy of phytic acid and boric acid and their application as highly sensitive and widely linear strain sensors. <i>Materials Horizons</i> , 2023, 10, 3488-3498.	6.4	6
347	Cellulose-Based Ionic Conductor: An Emerging Material toward Sustainable Devices. <i>Chemical Reviews</i> , 2023, 123, 9204-9264.	23.0	30
358	Recent progress in structural modification of polymer gel electrolytes for use in solid-state zinc-ion batteries. <i>Dalton Transactions</i> , 2023, 52, 11780-11796.	1.6	3

#	ARTICLE	IF	CITATIONS
374	Sustainable zinc-air battery chemistry: advances, challenges and prospects. <i>Chemical Society Reviews</i> , 2023, 52, 6139-6190.	18.7	24
403	Liquid Metal-Gel (LM-Gel) with Conductivity and Deformability. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	0
405	Anti-freezing Multifunctional Conductive Hydrogels: From Structure Design to Flexible Electronic Devices. <i>Materials Chemistry Frontiers</i> , 0, , .	3.2	0
434	Water vapor assisted aramid nanofiber reinforcement for strong, tough and ionically conductive organohydrogels as high-performance strain sensors. <i>Materials Horizons</i> , 2024, 11, 1272-1282.	6.4	1
441	Cold-resistant, highly stretchable ionic conductive hydrogels for intelligent motion recognition in winter sports. <i>Materials Horizons</i> , 2024, 11, 1234-1250.	6.4	2
446	Ultra-strong, nonfreezing, and flexible strain sensors enabled by biomass-based hydrogels through triple dynamic bond design. <i>Materials Horizons</i> , 2024, 11, 1588-1596.	6.4	0