Antiâ€freezing, Conductive Selfâ€healing Organohydro Subzero Temperatures

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Citation Report

#	Article	IF	Citations
1	Rational Fabrication of Antiâ€Freezing, Nonâ€Drying Tough Organohydrogels by Oneâ€Pot Solvent Displacement. Angewandte Chemie, 2018, 130, 6678-6681.	1.6	96
2	Rational Fabrication of Antiâ€Freezing, Nonâ€Drying Tough Organohydrogels by Oneâ€Pot Solvent Displacement. Angewandte Chemie - International Edition, 2018, 57, 6568-6571.	7.2	341
3	Biocompatible, self-healing, highly stretchable polyacrylic acid/reduced graphene oxide nanocomposite hydrogel sensors via mussel-inspired chemistry. Carbon, 2018, 136, 63-72.	5.4	282
4	Template method for dual network self-healing hydrogel with conductive property. Materials and Design, 2018, 148, 96-103.	3.3	56
5	A Conductive Selfâ€Healing Double Network Hydrogel with Toughness and Force Sensitivity. Chemistry - A European Journal, 2018, 24, 6632-6638.	1.7	45
6	Tough high modulus hydrogels derived from carbon-nitride via an ethylene glycol co-solvent route. Soft Matter, 2018, 14, 2655-2664.	1.2	28
7	Ultra-stretchable, bio-inspired ionic skins that work stably in various harsh environments. Journal of Materials Chemistry A, 2018, 6, 24114-24119.	5.2	75
8	Tough protein organohydrogels. Journal of Materials Chemistry B, 2018, 6, 7366-7372.	2.9	40
9	Extreme Temperature-Tolerant Organohydrogel Electrolytes for Laminated Assembly of Biaxially Stretchable Pseudocapacitors. ACS Applied Materials & Interfaces, 2018, 10, 42959-42966.	4.0	39
10	Stable, Strain-Sensitive Conductive Hydrogel with Antifreezing Capability, Remoldability, and Reusability. ACS Applied Materials & Interfaces, 2018, 10, 44000-44010.	4.0	234
11	Conductive and Tough Hydrogels Based on Biopolymer Molecular Templates for Controlling in Situ Formation of Polypyrrole Nanorods. ACS Applied Materials & Interfaces, 2018, 10, 36218-36228.	4.0	181
12	Low Temperature Tolerant Organohydrogel Electrolytes for Flexible Solidâ€State Supercapacitors. Advanced Energy Materials, 2018, 8, 1801967.	10.2	288
13	Human Skin-Inspired Electronic Sensor Skin with Electromagnetic Interference Shielding for the Sensation and Protection of Wearable Electronics. ACS Applied Materials & Interfaces, 2018, 10, 40880-40889.	4.0	78
14	Saltâ€Mediated Polyampholyte Hydrogels with High Mechanical Strength, Excellent Selfâ€Healing Property, and Satisfactory Electrical Conductivity. Advanced Functional Materials, 2018, 28, 1804416.	7.8	201
15	Preparation of high strength double physically cross-linked hydrogels by immersion methodâ€"How to avoid uneven soaking. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 559, 74-82.	2.3	15
16	Bioinspired ultra-stretchable and anti-freezing conductive hydrogel fibers with ordered and reversible polymer chain alignment. Nature Communications, 2018, 9, 3579.	5.8	201
17	Extremely Stretchable, Stable, and Durable Strain Sensors Based on Double-Network Organogels. ACS Applied Materials & Interfaces, 2018, 10, 32640-32648.	4.0	107
18	Polymer nanocomposite-enabled high-performance triboelectric nanogenerator with self-healing capability. RSC Advances, 2018, 8, 30661-30668.	1.7	28

#	Article	IF	Citations
19	Conductive Hydrogels as Smart Materials for Flexible Electronic Devices. Chemistry - A European Journal, 2018, 24, 16930-16943.	1.7	215
20	Facile Soaking Strategy Toward Simultaneously Enhanced Conductivity and Toughness of Self-Healing Composite Hydrogels Through Constructing Multiple Noncovalent Interactions. ACS Applied Materials & Interfaces, 2018, 10, 19133-19142.	4.0	56
21	Ultraflexible Self-Healing Guar Gum-Glycerol Hydrogel with Injectable, Antifreeze, and Strain-Sensitive Properties. ACS Biomaterials Science and Engineering, 2018, 4, 3397-3404.	2.6	163
22	Nanocellulose-Mediated Electroconductive Self-Healing Hydrogels with High Strength, Plasticity, Viscoelasticity, Stretchability, and Biocompatibility toward Multifunctional Applications. ACS Applied Materials & Interfaces, 2018, 10, 27987-28002.	4.0	420
23	Nanostructured Functional Hydrogels as an Emerging Platform for Advanced Energy Technologies. Advanced Materials, 2018, 30, e1801796.	11.1	177
24	Macroporous Conductive Hydrogels with Fatigue Resistance as Strain Sensor for Human Motion Monitoring. Macromolecular Materials and Engineering, 2018, 303, 1800339.	1.7	27
25	Rational design of nano-architecture composite hydrogel electrode towards high performance Zn-ion hybrid cell. Nanoscale, 2018, 10, 13083-13091.	2.8	101
26	Self-healing conductive hydrogels based on alginate, gelatin and polypyrrole serve as a repairable circuit and a mechanical sensor. Journal of Materials Chemistry B, 2019, 7, 5704-5712.	2.9	112
27	Biomimetic Extremeâ€Temperatureâ€•and Environmentâ€Adaptable Hydrogels. ChemPhysChem, 2019, 20, 2139-2154.	1.0	86
28	High strength, anti-freezing and strain sensing carboxymethyl cellulose-based organohydrogel. Carbohydrate Polymers, 2019, 223, 115051.	5.1	65
29	Conductive MXene Nanocomposite Organohydrogel for Flexible, Healable, Lowâ€Temperature Tolerant Strain Sensors. Advanced Functional Materials, 2019, 29, 1904507.	7.8	560
30	Ultrastretchable and Antifreezing Double-Cross-Linked Cellulose Ionic Hydrogels with High Strain Sensitivity under a Broad Range of Temperature. ACS Sustainable Chemistry and Engineering, 2019, 7, 14256-14265.	3.2	93
31	Transparent, Antifreezing, Ionic Conductive Cellulose Hydrogel with Stable Sensitivity at Subzero Temperature. ACS Applied Materials & Interfaces, 2019, 11, 41710-41716.	4.0	141
32	A High Stretchable and Selfâ€“Healing Silicone Rubber with Double Reversible Bonds. ChemistrySelect, 2019, 4, 10719-10725.	0.7	23
33	Wearable, Antifreezing, and Healable Epidermal Sensor Assembled from Long-Lasting Moist Conductive Nanocomposite Organohydrogel. ACS Applied Materials & Interfaces, 2019, 11, 41701-41709.	4.0	94
34	3D Fluorescent Hydrogel Origami for Multistage Data Security Protection. Advanced Functional Materials, 2019, 29, 1905514.	7.8	145
35	Poly(vinyl alcohol)â€“Carbon Nanodots Fluorescent Hydrogel with Superior Mechanical Properties and Sensitive to Detection of Iron(III) Ions. Macromolecular Materials and Engineering, 2019, 304, 1900326.	1.7	23
36	Planting carbon nanotubes onto supramolecular polymer matrices for waterproof non-contact self-healing. Nanoscale, 2019, 11, 467-473.	2.8	26

#	Article	IF	Citations
37	Fabrication of self-healing hydrogels with surface functionalized microcapsules from stellate mesoporous silica. Polymer Chemistry, 2019, 10, 503-511.	1.9	35
38	Physically Cross-Linked Double-Network Hydrogel for High-Performance Oilâ€“Water Separation Mesh. Industrial & Engineering Chemistry Research, 2019, 58, 21649-21658.	1.8	21
39	A Selfâ€Healing Metalâ€“Organic Hydrogel for an Allâ€Solid Flexible Supercapacitor. Chemistry - A European Journal, 2019, 25, 14775-14779.	1.7	26
40	Highly sensitive and wearable gel-based sensors with a dynamic physically cross-linked structure for strain-stimulus detection over a wide temperature range. Journal of Materials Chemistry C, 2019, 7, 11303-11314.	2.7	65
41	Ionic liquidâ€“based click-ionogels. Science Advances, 2019, 5, eaax0648.	4.7	230
42	Tough, anti-freezing and non-drying double network organohydrogels. Materials Today Communications, 2019, 21, 100609.	0.9	18
43	Low temperature tolerant, ultrasensitive strain sensors based on self-healing hydrogel for self-monitor of human motion. Synthetic Metals, 2019, 257, 116177.	2.1	30
44	An intrinsically stretchable humidity sensor based on anti-drying, self-healing and transparent organohydrogels. Materials Horizons, 2019, 6, 595-603.	6.4	297
45	An integrated transparent, UV-filtering organohydrogel sensor via molecular-level ion conductive channels. Journal of Materials Chemistry A, 2019, 7, 4525-4535.	5.2	143
46	Ultra-stretchable wearable strain sensors based on skin-inspired adhesive, tough and conductive hydrogels. Chemical Engineering Journal, 2019, 365, 10-19.	6.6	223
47	Highly transparent, stretchable, and rapid self-healing polyvinyl alcohol/cellulose nanofibril hydrogel sensors for sensitive pressure sensing and human motion detection. Sensors and Actuators B: Chemical, 2019, 295, 159-167.	4.0	199
48	Monolithic 3D printing of embeddable and highly stretchable strain sensors using conductive ionogels. Nanotechnology, 2019, 30, 364002.	1.3	11
49	Spontaneously Regenerative Tough Hydrogels. Angewandte Chemie, 2019, 131, 11067-11071.	1.6	8
50	Thermoresponsive nanoemulsion-based gel synthesized through a low-energy process. Nature Communications, 2019, 10, 2749.	5.8	78
51	Ionogel-based, highly stretchable, transparent, durable triboelectric nanogenerators for energy harvesting and motion sensing over a wide temperature range. Nano Energy, 2019, 63, 103847.	8.2	188
52	An intrinsically self-healing and biocompatible electroconductive hydrogel based on nanostructured nanocellulose-polyaniline complexes embedded in a viscoelastic polymer network towards flexible conductors and electrodes. Electrochimica Acta, 2019, 318, 660-672.	2.6	166
53	Extremely Stretchable and Self-Healable Electrical Skin with Mechanical Adaptability, an Ultrawide Linear Response Range, and Excellent Temperature Tolerance. ACS Applied Materials & Interfaces, 2019, 11, 24639-24647.	4.0	67
54	Ultrastretchable Wearable Strain and Pressure Sensors Based on Adhesive, Tough, and Self-healing Hydrogels for Human Motion Monitoring. ACS Applied Materials & Interfaces, 2019, 11, 25613-25623.	4.0	161

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55	Spontaneously Regenerative Tough Hydrogels. Angewandte Chemie - International Edition, 2019, 58, 10951-10955.	7.2	30
56	Skinâ€Inspired Antibacterial Conductive Hydrogels for Epidermal Sensors and Diabetic Foot Wound Dressings. Advanced Functional Materials, 2019, 29, 1901474.	7.8	371
57	Diffusionâ€“Freezingâ€Induced Microphase Separation for Constructing Largeâ€Area Multiscale Structures on Hydrogel Surfaces. Advanced Materials, 2019, 31, e1808217.	11.1	32
58	Freezing-Tolerant Supramolecular Organohydrogel with High Toughness, Thermoplasticity, and Healable and Adhesive Properties. ACS Applied Materials & Interfaces, 2019, 11, 21184-21193.	4.0	161
59	Cryogenic viscoelastic surfactant fluids: Fabrication and application in a subzero environment. Journal of Colloid and Interface Science, 2019, 551, 89-100.	5.0	13
60	Highly Stretchable and Compressible Cellulose Ionic Hydrogels for Flexible Strain Sensors. Biomacromolecules, 2019, 20, 2096-2104.	2.6	171
61	High-strength and pH-responsive self-healing polyvinyl alcohol/poly 6-acrylamidohexanoic acid hydrogel based on dual physically cross-linked network. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 571, 64-71.	2.3	30
62	An interfacially polymerized self-healing organo/hydro copolymer with shape memory. Nanoscale, 2019, 11, 6846-6851.	2.8	19
63	Stretchable, self-healing, transient macromolecular elastomeric gel for wearable electronics. Microsystems and Nanoengineering, 2019, 5, 9.	3.4	35
64	Inorganic Salts Induce Thermally Reversible and Antiâ€Freezing Cellulose Hydrogels. Angewandte Chemie, 2019, 131, 7444-7448.	1.6	12
65	One-Step Synthesis of Healable Weak-Polyelectrolyte-Based Hydrogels with High Mechanical Strength, Toughness, and Excellent Self-Recovery. ACS Macro Letters, 2019, 8, 500-505.	2.3	52
66	A self-healable and highly flexible supercapacitor integrated by dynamically cross-linked electro-conductive hydrogels based on nanocellulose-templated carbon nanotubes embedded in a viscoelastic polymer network. Carbon, 2019, 149, 1-18.	5.4	280
67	Biocompatible, self-wrinkled, antifreezing and stretchable hydrogel-based wearable sensor with PEDOT:sulfonated lignin as conductive materials. Chemical Engineering Journal, 2019, 370, 1039-1047.	6.6	230
68	Inorganic Salts Induce Thermally Reversible and Antiâ€Freezing Cellulose Hydrogels. Angewandte Chemie - International Edition, 2019, 58, 7366-7370.	7.2	322
69	Environmentally Stable Polymer Gels with Super Deformability and High Recoverability Enhanced by Subâ€5 nm Particles in the Nonvolatile Solvent. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 713-721.	2.4	9
70	Polyacryloyl hydrazide incorporation into ionic hydrogels improves toughness, elasticity, self-healability, adhesive & strain sensing properties. Materials Chemistry Frontiers, 2019, 3, 690-701.	3.2	18
71	Conductive Recyclable Organogel Composites. Macromolecular Materials and Engineering, 2019, 304, 1800583.	1.7	4
72	Ultrastretchable and Stable Strain Sensors Based on Antifreezing and Self-Healing Ionic Organohydrogels for Human Motion Monitoring. ACS Applied Materials & Interfaces, 2019, 11, 9405-9414.	4.0	285

#	Article	IF	Citations
73	A transparent, tough self-healing hydrogel based on a dual physically and chemically triple crosslinked network. Journal of Materials Chemistry C, 2019, 7, 14581-14587.	2.7	20
74	A highly stretchable, ultra-tough, remarkably tolerant, and robust self-healing glycerol-hydrogel for a dual-responsive soft actuator. Journal of Materials Chemistry A, 2019, 7, 25969-25977.	5.2	111
75	Polyvinyl Alcohol-Stabilized Liquid Metal Hydrogel for Wearable Transient Epidermal Sensors. ACS Applied Materials & Interfaces, 2019, 11, 47358-47364.	4.0	148
76	Biomimetic organohydrogel electrolytes for highâ€environmental adaptive energy storage devices. EcoMat, 2019, 1, e12008.	6.8	95
77	Bimetallic ions synergistic crossâ€linking highâ€strength rapid selfâ€healing antibacterial hydrogel. Polymer Engineering and Science, 2019, 59, 919-927.	1.5	20
78	Extremely Deformable, Transparent, and High-Performance Gas Sensor Based on Ionic Conductive Hydrogel. ACS Applied Materials & Interfaces, 2019, 11, 2364-2373.	4.0	180
79	Conductive Organohydrogels with Ultrastretchability, Antifreezing, Self-Healing, and Adhesive Properties for Motion Detection and Signal Transmission. ACS Applied Materials & Interfaces, 2019, 11, 3428-3437.	4.0	94
80	Quickly selfâ€healing hydrogel at room temperature with high conductivity synthesized through simple free radical polymerization. Journal of Applied Polymer Science, 2019, 136, 47379.	1.3	20
81	Stretchable Ni@NiCoP textile for wearable energy storage clothes. Nano Energy, 2019, 55, 506-515.	8.2	79
82	Self-recoverable semi-crystalline hydrogels with thermomechanics and shape memory performance. Science China Materials, 2019, 62, 586-596.	3.5	24
83	Adhesives to empower a manipulator inspired by the chameleon tongue. Chinese Chemical Letters, 2020, 31, 821-825.	4.8	4
84	Underwater superoleophobic APTES-SiO2/PVA organohydrogel for low-temperature tolerant, self-healing, recoverable oil/water separation mesh. Chemical Engineering Journal, 2020, 382, 122925.	6.6	72
85	Non-equilibrium polymerization enables adhesive material with anti-freezing, multipurpose adhesion, long-term air stability and anisotropic deformation. Chemical Engineering Journal, 2020, 382, 122926.	6.6	24
86	Ionic Tactile Sensors for Emerging Humanâ€Interactive Technologies: A Review of Recent Progress. Advanced Functional Materials, 2020, 30, 1904532.	7.8	122
87	Antifreeze and moisturizing high conductivity PEDOT/PVA hydrogels for wearable motion sensor. Journal of Materials Science, 2020, 55, 1280-1291.	1.7	69
88	Antifreezing Hydrogel with High Zinc Reversibility for Flexible and Durable Aqueous Batteries by Cooperative Hydrated Cations. Advanced Functional Materials, 2020, 30, 1907218.	7.8	209
89	A Flexible Rechargeable Zincâ€“Air Battery with Excellent Lowâ€Temperature Adaptability. Angewandte Chemie - International Edition, 2020, 59, 4793-4799.	7.2	217
90	A Flexible Rechargeable Zincâ€“Air Battery with Excellent Lowâ€Temperature Adaptability. Angewandte Chemie, 2020, 132, 4823-4829.	1.6	57

#	Article	IF	Citations
91	Anti-freezing and moisturizing conductive hydrogels for strain sensing and moist-electric generation applications. Journal of Materials Chemistry A, 2020, 8, 3109-3118.	5.2	158
92	Autonomous Self-Healing, Antifreezing, and Transparent Conductive Elastomers. Chemistry of Materials, 2020, 32, 874-881.	3.2	138
93	Self-healing conductive hydrogels: preparation, properties and applications. Nanoscale, 2020, 12, 1224-1246.	2.8	286
94	Poly(ionic liquid) hydrogel-based anti-freezing ionic skin for a soft robotic gripper. Materials Horizons, 2020, 7, 919-927.	6.4	289
95	Antibacterial thyme oil-loaded organo-hydrogels utilizing cellulose acetoacetate as reactive polymer emulsifier. International Journal of Biological Macromolecules, 2020, 147, 18-23.	3.6	16
96	Reactive spinning to achieve nanocomposite gel fibers: from monomer to fiber dynamically with enhanced anisotropy. Materials Horizons, 2020, 7, 811-819.	6.4	29
97	Three-Dimensional Self-Healable Touch Sensing Artificial Skin Device. ACS Applied Materials & Interfaces, 2020, 12, 3953-3960.	4.0	40
98	Conductive Self-Healing Nanocomposite Hydrogel Skin Sensors with Antifreezing and Thermoresponsive Properties. ACS Applied Materials & Interfaces, 2020, 12, 3068-3079.	4.0	140
99	Naturally sourced biosubstances for regulating freezing points in food researches: Fundamentals, current applications and future trends. Trends in Food Science and Technology, 2020, 95, 131-140.	7.8	78
100	Diatomite-stabilized Pickering emulsion-templated synthesis of bicontinuous anti-freezing organohydrogels. Polymer, 2020, 186, 122057.	1.8	9
101	Muscle-Inspired Self-Healing Hydrogels for Strain and Temperature Sensor. ACS Nano, 2020, 14, 218-228.	7.3	476
102	Zwitterionic Osmolyteâ€Based Hydrogels with Antifreezing Property, High Conductivity, and Stable Flexibility at Subzero Temperature. Advanced Functional Materials, 2020, 30, 1907986.	7.8	201
103	Hydrogel-based temperature sensor with water retention, frost resistance and remoldability. Polymer, 2020, 186, 122027.	1.8	66
104	A conductive self-healing hydrogel binder for high-performance silicon anodes in lithium-ion batteries. Journal of Power Sources, 2020, 449, 227472.	4.0	79
105	Enhanced Solarâ€Drivenâ€Heating and Tough Hydrogel Electrolyte by Photothermal Effect and Hofmeister Effect. Small, 2020, 16, e2004091.	5.2	21
106	A Conductive, Self-Healing Hybrid Hydrogel with Excellent Water-Retention and Thermal Stability by Introducing Ethylene Glycol as a Crystallization Inhibitor. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 607, 125443.	2.3	28
107	Stretchable respiration sensors: Advanced designs and multifunctional platforms for wearable physiological monitoring. Biosensors and Bioelectronics, 2020, 166, 112460.	5.3	129
108	Bioinspired Tough Organohydrogel Dynamic Interfaces Enabled Subzero Temperature Antifrosting, Deicing, and Antiadhesion. ACS Applied Materials & Interfaces, 2020, 12, 55501-55509.	4.0	16

#	Article	IF	Citations
109	A stretchable and self-healable organosilicon conductive nanocomposite for a reliable and sensitive strain sensor. Journal of Materials Chemistry C, 2020, 8, 17277-17288.	2.7	19
110	Role of a high calcium ion content in extending the properties of alginate dual-crosslinked hydrogels. Journal of Materials Chemistry A, 2020, 8, 25390-25401.	5.2	114
111	Extreme Temperature-Tolerant Conductive Gel with Antibacterial Activity for Flexible Dual-Response Sensors. ACS Applied Materials & Interfaces, 2020, 12, 56470-56479.	4.0	37
112	Synthesis Antifreezing and Antidehydration Organohydrogels: One-Step In-Situ Gelling versus Two-Step Solvent Displacement. Polymers, 2020, 12, 2670.	2.0	12
113	Selfâ€healing Polyol/Borax Hydrogels: Fabrications, Properties and Applications. Chemical Record, 2020, 20, 1142-1162.	2.9	35
114	Supramolecular G4 Eutectogels of Guanosine with Solventâ€Induced Chiral Inversion and Excellent Electrochromic Activity. Angewandte Chemie, 2020, 132, 18927-18932.	1.6	7
115	A Flexible and Safe Aqueous Zincâ€“Air Battery with a Wide Operating Temperature Range from â^'20 to 70 Â°C. ACS Sustainable Chemistry and Engineering, 2020, 8, 11501-11511.	3.2	63
116	An adaptive ionic skin with multiple stimulus responses and moist-electric generation ability. Journal of Materials Chemistry A, 2020, 8, 17498-17506.	5.2	53
117	Multifunctional Poly(vinyl alcohol) Nanocomposite Organohydrogel for Flexible Strain and Temperature Sensor. ACS Applied Materials & Interfaces, 2020, 12, 40815-40827.	4.0	141
118	A metalloprotein-inspired thermo-gene for thermogels. Inorganic Chemistry Frontiers, 2020, 7, 4086-4091.	3.0	4
119	Ctenophore-inspired hydrogels for efficient and repeatable underwater specific adhesion to biotic surfaces. Materials Horizons, 2020, 7, 2651-2661.	6.4	127
120	Flexible Supercapacitor Based on Organohydrogel Electrolyte with Longâ€Term Antiâ€Freezing and Antiâ€Drying Property. Advanced Functional Materials, 2020, 30, 2007291.	7.8	152
121	Engineering hydrogels by soaking: from mechanical strengthening to environmental adaptation. Chemical Communications, 2020, 56, 13731-13747.	2.2	30
122	Functional Conductive Hydrogels for Bioelectronics. , 2020, 2, 1287-1301.		193
123	MXeneâ€Based Conductive Organohydrogels with Longâ€Term Environmental Stability and Multifunctionality. Advanced Functional Materials, 2020, 30, 2005135.	7.8	221
124	A one-step aqueous route to prepare polyacrylonitrile-based hydrogels with excellent ionic conductivity and extreme low temperature tolerance. Journal of Materials Chemistry A, 2020, 8, 22090-22099.	5.2	40
125	Anisotropic Protein Organofibers Encoded With Extraordinary Mechanical Behavior for Cellular Mechanobiology Applications. Angewandte Chemie, 2020, 132, 21665-21671.	1.6	8
126	Skin-Contactable and Antifreezing Strain Sensors Based on Bilayer Hydrogels. Chemistry of Materials, 2020, 32, 8938-8946.	3.2	77

#	Article	IF	Citations
127	Anisotropic Protein Organofibers Encoded With Extraordinary Mechanical Behavior for Cellular Mechanobiology Applications. Angewandte Chemie - International Edition, 2020, 59, 21481-21487.	7.2	39
128	Selfâ€Contained Focusâ€Tunable Lenses Based on Transparent and Conductive Gels. Macromolecular Materials and Engineering, 2020, 305, 2000393.	1.7	6
129	Supramolecular Adhesion at Extremely Low Temperatures: A Combined Experimental and Theoretical Investigation. Journal of the American Chemical Society, 2020, 142, 21522-21529.	6.6	63
130	Stretchable, Stable, and Room-Temperature Gas Sensors Based on Self-Healing and Transparent Organohydrogels. ACS Applied Materials & Interfaces, 2020, 12, 52070-52081.	4.0	57
131	A multi-model, large range and anti-freezing sensor based on a multi-crosslinked poly(vinyl alcohol) hydrogel for human-motion monitoring. Journal of Materials Chemistry B, 2020, 8, 11010-11020.	2.9	66
132	Rapidly Visible-Light-Mediated Photogelations for One-Step Engineering Multifunctional Tough Hydrogel Tubes. ACS Macro Letters, 2020, 9, 1681-1686.	2.3	18
133	The new generation of soft and wearable electronics for health monitoring in varying environment: From normal to extreme conditions. Materials Today, 2020, 41, 219-242.	8.3	125
134	Bioinspired Selfâ€Healing Humanâ€“Machine Interactive Touch Pad with Pressureâ€Sensitive Adhesiveness on Targeted Substrates. Advanced Materials, 2020, 32, e2004290.	11.1	210
135	Freezing-Tolerant, Highly Sensitive Strain and Pressure Sensors Assembled from Ionic Conductive Hydrogels with Dynamic Cross-Links. ACS Applied Materials & Interfaces, 2020, 12, 25334-25344.	4.0	189
136	Hydrophilic/Hydrophobic Heterogeneity Anti-Biofouling Hydrogels with Well-Regulated Rehydration. ACS Applied Materials & Interfaces, 2020, 12, 25316-25323.	4.0	65
137	Functionalizing Double-Network Hydrogels for Applications in Remote Actuation and in Low-Temperature Strain Sensing. ACS Applied Materials & Interfaces, 2020, 12, 30247-30258.	4.0	93
138	An Antifreezing/Antiheating Hydrogel Containing Catechol Derivative Urushiol for Strong Wet Adhesion to Various Substrates. ACS Applied Materials & Interfaces, 2020, 12, 32031-32040.	4.0	70
139	A Solvent Co-cross-linked Organogel with Fast Self-Healing Capability and Reversible Adhesiveness at Extreme Temperatures. ACS Applied Materials & Interfaces, 2020, 12, 29757-29766.	4.0	29
140	Physical Organohydrogels With Extreme Strength and Temperature Tolerance. Frontiers in Chemistry, 2020, 8, 102.	1.8	17
141	Anti-freezing flexible aqueous Znâ€“MnO₂ batteries working at â^'35 Â°C enabled by a borax-crosslinked polyvinyl alcohol/glycerol gel electrolyte. Journal of Materials Chemistry A, 2020, 8, 6828-6841.	5.2	196
142	Robust Physically Linked Double-Network Ionogel as a Flexible Bimodal Sensor. ACS Applied Materials & Interfaces, 2020, 12, 14272-14279.	4.0	118
143	A type of self-healable, dissoluble and stretchable organosilicon elastomer for flexible electronic devices. European Polymer Journal, 2020, 134, 109857.	2.6	25
144	Highly stretchable, transparent cellulose/PVA composite hydrogel for multiple sensing and triboelectric nanogenerators. Journal of Materials Chemistry A, 2020, 8, 13935-13941.	5.2	140

#	Article	IF	Citations
145	Anti-Freezing multiphase gel materials: Bioinspired design strategies and applications. Giant, 2020, 2, 100014.	2.5	44
146	Ultra-Stretchable, durable and conductive hydrogel with hybrid double network as high performance strain sensor and stretchable triboelectric nanogenerator. Nano Energy, 2020, 76, 105035.	8.2	209
147	Progress on zinc ion hybrid supercapacitors: Insights and challenges. Energy Storage Materials, 2020, 31, 252-266.	9.5	141
148	Supramolecular G4 Eutectogels of Guanosine with Solventâ€Induced Chiral Inversion and Excellent Electrochromic Activity. Angewandte Chemie - International Edition, 2020, 59, 18768-18773.	7.2	77
149	Tailoring $$hbox {LaB}_{mathrm {6}}$$ nanoparticle-based self-healing film for heat-shielding window. Bulletin of Materials Science, 2020, 43, 1.	0.8	2
150	Metallopolymer Organohydrogels with Photoâ€Controlled Coordination Crosslinks Work Properly Below 0 Â°C. Advanced Materials, 2020, 32, e1908324.	11.1	53
151	A rapid self-healing hydrogel based on PVA and sodium alginate with conductive and cold-resistant properties. Soft Matter, 2020, 16, 3319-3324.	1.2	52
152	An all-in-one supercapacitor working at sub-zero temperatures. Science China Materials, 2020, 63, 660-666.	3.5	18
153	Dual Conductive Network Hydrogel for a Highly Conductive, Self-Healing, Anti-Freezing, and Non-Drying Strain Sensor. ACS Applied Polymer Materials, 2020, 2, 996-1005.	2.0	170
154	Transparent, high-strength, stretchable, sensitive and anti-freezing poly(vinyl alcohol) ionic hydrogel strain sensors for human motion monitoring. Journal of Materials Chemistry C, 2020, 8, 2827-2837.	2.7	118
155	Strategies for Designing Stretchable Strain Sensors and Conductors. Advanced Materials Technologies, 2020, 5, 1900908.	3.0	94
156	Rational Design of Antifreezing Organohydrogel Electrolytes for Flexible Supercapacitors. ACS Applied Energy Materials, 2020, 3, 1944-1951.	2.5	85
157	Bioinspired functional organohydrogels with synergistic multiphases heterostructure. Polymer, 2020, 190, 122214.	1.8	12
158	Mechanically and Electronically Robust Transparent Organohydrogel Fibers. Advanced Materials, 2020, 32, e1906994.	11.1	207
159	A transparent, ultrastretchable and fully recyclable gelatin organohydrogel based electronic sensor with broad operating temperature. Journal of Materials Chemistry A, 2020, 8, 4447-4456.	5.2	152
160	Flexible and anti-freezing quasi-solid-state zinc ion hybrid supercapacitors based on pencil shavings derived porous carbon. Energy Storage Materials, 2020, 28, 307-314.	9.5	279
161	Physically Cross-Linked Silk Fibroin-Based Tough Hydrogel Electrolyte with Exceptional Water Retention and Freezing Tolerance. ACS Applied Materials & Interfaces, 2020, 12, 25353-25362.	4.0	73
162	Recent advances in designing conductive hydrogels for flexible electronics. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 843-865.	8.5	150

#	Article	IF	Citations
163	Ultrasensitive and Stretchable Temperature Sensors Based on Thermally Stable and Self-Healing Organohydrogels. ACS Applied Materials & Interfaces, 2020, 12, 19069-19079.	4.0	145
164	Musselâ€Inspired Hydrogels for Selfâ€Adhesive Bioelectronics. Advanced Functional Materials, 2020, 30, 1909954.	7.8	285
165	Highly Stretchable, Fast Selfâ€Healing, Responsive Conductive Hydrogels for Supercapacitor Electrode and Motion Sensor. Macromolecular Materials and Engineering, 2020, 305, 2000018.	1.7	42
166	Supramolecularly Mediated Robust, Antiâ€Fatigue, and Strainâ€Sensitive Macromolecular Microsphere Composite Hydrogels. Macromolecular Materials and Engineering, 2020, 305, 2000080.	1.7	19
167	Peptidoglycan-inspired autonomous ultrafast self-healing bio-friendly elastomers for bio-integrated electronics. National Science Review, 2021, 8, nwaa154.	4.6	52
168	An ultra-stretchable glycerol-ionic hybrid hydrogel with reversible gelid adhesion. Journal of Colloid and Interface Science, 2021, 582, 187-200.	5.0	37
169	Robust and sensitive pressure/strain sensors from solution processable composite hydrogels enhanced by hollow-structured conducting polymers. Chemical Engineering Journal, 2021, 403, 126307.	6.6	110
170	Low-temperature tolerant strain sensors based on triple crosslinked organohydrogels with ultrastretchability. Chemical Engineering Journal, 2021, 404, 126559.	6.6	108
171	Anti-freezing, resilient and tough hydrogels for sensitive and large-range strain and pressure sensors. Chemical Engineering Journal, 2021, 403, 126431.	6.6	215
172	Self-healing, stretchable, and freezing-resistant hydroxypropyl starch-based double-network hydrogels. Carbohydrate Polymers, 2021, 251, 116982.	5.1	61
173	Nanocellulose/LiCl systems enable conductive and stretchable electrolyte hydrogels with tolerance to dehydration and extreme cold conditions. Chemical Engineering Journal, 2021, 408, 127306.	6.6	174
174	Multifunctional conductive hydrogel-based flexible wearable sensors. TrAC - Trends in Analytical Chemistry, 2021, 134, 116130.	5.8	207
175	Rational design of multiple hydrogen bonds to improve the mechanical property of rigid PANI. Extreme Mechanics Letters, 2021, 42, 101136.	2.0	8
176	Review of flexible strain sensors based on cellulose composites for multi-faceted applications. Cellulose, 2021, 28, 615-645.	2.4	39
177	Extremely stretchable and healable ionic conductive hydrogels fabricated by surface competitive coordination for human-motion detection. Chemical Engineering Journal, 2021, 420, 127637.	6.6	47
178	Fruit-battery-inspired self-powered stretchable hydrogel-based ionic skin that works effectively in extreme environments. Journal of Materials Chemistry A, 2021, 9, 3968-3975.	5.2	42
179	Intrinsically adhesive, highly sensitive and temperature tolerant flexible sensors based on double network organohydrogels. Chemical Engineering Journal, 2021, 413, 127544.	6.6	72
180	A highly elastic and sensitive sensor based on <scp>GSP</scp>/<scp>HPAM</scp> composited hydrogel. Journal of Applied Polymer Science, 2021, 138, 50192.	1.3	9

#	Article	IF	Citations
181	Biomimetic anti-freezing polymeric hydrogels: keeping soft-wet materials active in cold environments. Materials Horizons, 2021, 8, 351-369.	6.4	250
182	Adhesive and tough hydrogels: from structural design to applications. Journal of Materials Chemistry B, 2021, 9, 5954-5966.	2.9	31
183	Spinnable adhesive functional-hydrogel fibers for sensing and perception applications. Journal of Materials Chemistry C, 2021, 9, 5554-5564.	2.7	20
184	Conductive Hydrogel- and Organohydrogel-Based Stretchable Sensors. ACS Applied Materials & Interfaces, 2021, 13, 2128-2144.	4.0	214
185	Natural Biopolymer-Based Biocompatible Conductors for Stretchable Bioelectronics. Chemical Reviews, 2021, 121, 2109-2146.	23.0	199
186	Fully-physically crosslinked silk fibroin/poly(hydroxyethyl acrylamide) hydrogel with high transparency and adhesive properties for wireless sensing and low-temperature strain sensing. Journal of Materials Chemistry C, 2021, 9, 1880-1887.	2.7	34
187	Spontaneously Self-Regenerative Hybrid Luminescent Hydrogel. ACS Applied Polymer Materials, 2021, 3, 604-609.	2.0	6
188	Ultra-stretchable, self-adhesive, transparent, and ionic conductive organohydrogel for flexible sensor. APL Materials, 2021, 9, .	2.2	23
189	Optimizing supramolecular fluorescent materials with responsive multi-color tunability toward soft biomimetic skins. Materials Chemistry Frontiers, 2021, 5, 5130-5141.	3.2	8
190	Make it stereoscopic: interfacial design for full-temperature adaptive flexible zincâ€“air batteries. Energy and Environmental Science, 2021, 14, 4926-4935.	15.6	108
191	Tissue adhesive hydrogel bioelectronics. Journal of Materials Chemistry B, 2021, 9, 4423-4443.	2.9	129
192	Ultrastable, stretchable, highly conductive and transparent hydrogels enabled by salt-percolation for high-performance temperature and strain sensing. Journal of Materials Chemistry C, 2021, 9, 13668-13679.	2.7	77
193	Small molecule-based supramolecular-polymer double-network hydrogel electrolytes for ultra-stretchable and waterproof Znâ€“air batteries working from â^'50 to 100 Â°C. Energy and Environmental Science, 0, , .	15.6	100
194	Polypyrrole-Doped Conductive Self-Healing Composite Hydrogels with High Toughness and Stretchability. Biomacromolecules, 2021, 22, 1273-1281.	2.6	36
195	Zwitterionic Hydrogel with High Transparency, Ultrastretchability, and Remarkable Freezing Resistance for Wearable Strain Sensors. Biomacromolecules, 2021, 22, 1220-1230.	2.6	94
196	Rapid and scalable fabrication of ultraâ€stretchable, antiâ€freezing conductive gels by cononsolvency effect. EcoMat, 2021, 3, e12085.	6.8	26
197	Selfâ€Healing Soft Sensors: From Material Design to Implementation. Advanced Materials, 2021, 33, e2004190.	11.1	106
198	A Dual-Responsive, Freezing-Tolerant Hydrogel Sensor and Related Thermal- and Strain-Sensitive Mechanisms. ACS Applied Polymer Materials, 2021, 3, 1479-1487.	2.0	29

#	Article	IF	Citations
199	Self-healing hydrogel electrodes from ingestible materials. MRS Communications, 2021, 11, 342-348.	0.8	3
200	Facile preparation of stretchable and self-healable conductive hydrogels based on sodium alginate/polypyrrole nanofibers for use in flexible supercapacitor and strain sensors. International Journal of Biological Macromolecules, 2021, 172, 41-54.	3.6	66
201	Multiresponsive Cellulose Nanocrystal Cross-Linked Copolymer Hydrogels for the Controlled Release of Dyes and Drugs. Polymers, 2021, 13, 1219.	2.0	4
202	Self-Adhesive, Stretchable, Biocompatible, and Conductive Nonvolatile Eutectogels as Wearable Conformal Strain and Pressure Sensors and Biopotential Electrodes for Precise Health Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 20735-20745.	4.0	86
203	Environment Tolerant Conductive Nanocomposite Organohydrogels as Flexible Strain Sensors and Power Sources for Sustainable Electronics. Advanced Functional Materials, 2021, 31, 2101696.	7.8	179
204	Flexible Antifreeze Zn-Ion Hybrid Supercapacitor Based on Gel Electrolyte with Graphene Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 16454-16468.	4.0	134
205	Tough Adhesion of Freezing- and Drying-Tolerant Transparent Nanocomposite Organohydrogels. ACS Applied Materials & Interfaces, 2021, 13, 21822-21830.	4.0	25
206	Conductive Hydrogelâ€Based Electrodes and Electrolytes for Stretchable and Selfâ€Healable Supercapacitors. Advanced Functional Materials, 2021, 31, 2101303.	7.8	178
207	Orthogonal photochemistry-assisted printing of 3D tough and stretchable conductive hydrogels. Nature Communications, 2021, 12, 2082.	5.8	96
208	Self-healable castor oil-based waterborne polyurethane/MXene film with outstanding electromagnetic interference shielding effectiveness and excellent shape memory performance. Journal of Colloid and Interface Science, 2021, 588, 164-174.	5.0	147
209	A highly elastic, Room-temperature repairable and recyclable conductive hydrogel for stretchable electronics. Journal of Colloid and Interface Science, 2021, 588, 295-304.	5.0	36
210	Zincâ€Ion Hybrid Supercapacitors: Progress and Future Perspective. Batteries and Supercaps, 2021, 4, 1529-1546.	2.4	48
211	Long-Term Anti-freezing Active Organohydrogel Based Superior Flexible Supercapacitor and Strain Sensor. ACS Sustainable Chemistry and Engineering, 2021, 9, 7267-7276.	3.2	39
212	Bacterial Cellulose Reinforced Polyaniline Electroconductive Hydrogel with Multiple Weak Hâ€Bonds as Flexible and Sensitive Strain Sensor. Macromolecular Materials and Engineering, 2021, 306, 2100159.	1.7	31
213	Towards Largeâ€Scale Fabrication of Selfâ€Healable Functional Hydrogel Coatings for Antiâ€Fog/Frost Surfaces and Flexible Sensors. Advanced Materials Technologies, 2021, 6, 2001267.	3.0	22
214	Environmentally Compatible Wearable Electronics Based on Ionically Conductive Organohydrogels for Health Monitoring with Thermal Compatibility, Antiâ€Dehydration, and Underwater Adhesion. Small, 2021, 17, e2101151.	5.2	70
215	Bioinspired Conductive Hydrogel with Ultrahigh Toughness and Stable Antiswelling Properties for Articular Cartilage Replacement. , 2021, 3, 807-814.		52
216	Anti-freezing and antibacterial conductive organohydrogel co-reinforced by 1D silk nanofibers and 2D graphitic carbon nitride nanosheets as flexible sensor. Chemical Engineering Journal, 2021, 411, 128470.	6.6	81

#	Article	IF	Citations
217	Selected Phase Separation Renders High Strength and Toughness to Polyacrylamide/Alginate Hydrogels with Large-Scale Cross-Linking Zones. ACS Applied Materials & Interfaces, 2021, 13, 25383-25391.	4.0	17
218	Ingestible, Biofriendly, and Flexible Flour-Based Humidity Sensors with a Wide Sensing Range. ACS Applied Electronic Materials, 2021, 3, 2798-2806.	2.0	9
219	Bioinspired organohydrogels with heterostructures: Fabrications, performances, and applications. Advances in Colloid and Interface Science, 2021, 292, 102408.	7.0	22
220	Biocompatible Autonomic Selfâ€healing PVAâ€TA Hydrogel with High Mechanical Strength. Macromolecular Chemistry and Physics, 2021, 222, 2100061.	1.1	21
221	Facilely prepared conductive hydrogels based on polypyrrole nanotubes. Chemical Papers, 2021, 75, 5113-5120.	1.0	7
222	Multiple network organohydrogels with high strength and anti-swelling properties in different solvents. Giant, 2021, 6, 100058.	2.5	6
223	Stretchable and Freezeâ€Tolerant Organohydrogel Thermocells with Enhanced Thermoelectric Performance Continually Working at Subzero Temperatures. Advanced Functional Materials, 2021, 31, 2104071.	7.8	53
224	3D architected temperature-tolerant organohydrogels with ultra-tunable energy absorption. IScience, 2021, 24, 102789.	1.9	3
225	Highly Deformable and Stable Gas Sensor Based on Anti-Drying Ionic Organohydrogel for O2 Gas Detection. , 2021, , .		0
226	Poly(vinyl alcohol) Hydrogels with Integrated Toughness, Conductivity, and Freezing Tolerance Based on Ionic Liquid/Water Binary Solvent Systems. ACS Applied Materials & Interfaces, 2021, 13, 29008-29020.	4.0	82
227	Simulated synthesis of silica nanowires by lyotropic liquid crystal template method. Molecular Simulation, 0, , 1-11.	0.9	0
228	Gel-based thermocells for low-grade heat harvesting. Europhysics Letters, 2021, 135, 26001.	0.7	10
229	Anti-freezing and thermally self-healing polymer composite comprising polyvinyl alcohol, polyethylene oxide, and sodium carboxymethyl cellulose. European Polymer Journal, 2021, 154, 110565.	2.6	7
230	3D printed super-anti-freezing self-adhesive human-machine interface. Materials Today Physics, 2021, 19, 100404.	2.9	37
231	Anti-freezing, moisturizing, resilient and conductive organohydrogel for sensitive pressure sensors. Journal of Colloid and Interface Science, 2021, 594, 584-592.	5.0	54
232	Polyacrylamide/Chitosan-Based Conductive Double Network Hydrogels with Outstanding Electrical and Mechanical Performance at Low Temperatures. ACS Applied Materials & Interfaces, 2021, 13, 34942-34953.	4.0	63
234	An Antiâ€Freezing, Ambientâ€Stable and Highly Stretchable Ionic Skin with Strong Surface Adhesion for Wearable Sensing and Soft Robotics. Advanced Functional Materials, 2021, 31, 2104665.	7.8	140
235	Lignin sulfonate induced ultrafast polymerization of double network hydrogels with anti-freezing, high strength and conductivity and their sensing applications at extremely cold conditions. Composites Part B: Engineering, 2021, 217, 108879.	5.9	52

#	Article	IF	Citations
236	An Ultra-Stretchable Sensitive Hydrogel Sensor for Human Motion and Pulse Monitoring. Micromachines, 2021, 12, 789.	1.4	10
237	Recent Progress in Essential Functions of Soft Electronic Skin. Advanced Functional Materials, 2021, 31, 2104686.	7.8	192
238	An Antifreezing, Tough, Rehydratable, and Thermoplastic Poly(vinyl alcohol)/Sodium Alginate/Poly(ethylene glycol) Organohydrogel Electrolyte for Flexible Supercapacitors. ACS Sustainable Chemistry and Engineering, 2021, 9, 9833-9845.	3.2	54
239	Multiâ€Functional Hydrogels for Flexible Zincâ€Based Batteries Working under Extreme Conditions. Advanced Energy Materials, 2021, 11, 2101749.	10.2	116
240	Advances in transparent and stretchable strain sensors. Advanced Composites and Hybrid Materials, 2021, 4, 435-450.	9.9	109
241	Tough, Resilient, Adhesive, and Anti-Freezing Hydrogels Cross-Linked with a Macromolecular Cross-Linker for Wearable Strain Sensors. ACS Applied Materials & Interfaces, 2021, 13, 42052-42062.	4.0	43
242	A mechanical, electrical dual autonomous self-healing multifunctional composite hydrogel. Materials Today Bio, 2021, 12, 100138.	2.6	9
243	Preparation of a self-healing polyaniline-based gel and its application as a healable all-in-one capacitor. Chemical Engineering Journal, 2021, 420, 129790.	6.6	28
244	<scp>PVA</scp>/<scp>SA</scp>/<scp>MXene</scp> dualâ€network conductive hydrogel for wearable sensor to monitor human motions. Journal of Applied Polymer Science, 2022, 139, 51627.	1.3	44
245	Conductive, sensing stable and mechanical robust silicone rubber composites for largeâ€strain sensors. Polymer Composites, 2021, 42, 6394-6402.	2.3	20
246	Skin-like hydrogel devices for wearable sensing, soft robotics and beyond. IScience, 2021, 24, 103174.	1.9	103
247	Biomimetic anisotropic hydrogels: Advanced fabrication strategies, extraordinary functionalities, and broad applications. Progress in Materials Science, 2022, 124, 100870.	16.0	81
248	Ionic conductive hydrogels with long-lasting antifreezing, water retention and self-regeneration abilities. Chemical Engineering Journal, 2021, 419, 129478.	6.6	172
249	A green MXene-based organohydrogel with tunable mechanics and freezing tolerance for wearable strain sensors. Chinese Chemical Letters, 2022, 33, 2205-2211.	4.8	21
250	Highly transparent conductive ionohydrogel for all-climate wireless human-motion sensor. Chemical Engineering Journal, 2021, 420, 129865.	6.6	47
251	Chameleon-Inspired Energy-Saving Smart Window Responding to Natural Weather. ACS Sustainable Chemistry and Engineering, 2021, 9, 12949-12959.	3.2	45
252	Anti-freezing, water-retaining, conductive, and strain-sensitive hemicellulose/polypyrrole composite hydrogels for flexible sensors. Journal of Materials Research and Technology, 2021, 14, 555-566.	2.6	34
253	Polymeric materials reinforced by noncovalent aggregates of polymer chains. Aggregate, 2021, 2, e109.	5.2	28

#	Article	IF	Citations
254	A Surface-Confined Gradient Conductive Network Strategy for Transparent Strain Sensors toward Full-Range Monitoring. ACS Applied Materials & Interfaces, 2021, 13, 43806-43819.	4.0	2
255	A General Crosslinker Strategy to Realize Intrinsic Frozen Resistance of Hydrogels. Advanced Materials, 2021, 33, e2104006.	11.1	82
256	Flexible organohydrogel ionic skin with Ultra-Low temperature freezing resistance and Ultra-Durable moisture retention. Journal of Colloid and Interface Science, 2022, 608, 396-404.	5.0	37
257	All-in-one and bipolar-membrane-free acid-alkaline hydrogel electrolytes for flexible high-voltage Zn-air batteries. Chemical Engineering Journal, 2022, 430, 132718.	6.6	24
258	Low-temperature adaptive conductive hydrogel based on ice structuring proteins/CaCl2 anti-freeze system as wearable strain and temperature sensor. International Journal of Biological Macromolecules, 2021, 188, 534-541.	3.6	32
259	An ultra-strong, ultra-stiff and anti-freezing hydrogel based on poly(vinyl alcohol). Materials Letters, 2021, 300, 130172.	1.3	9
260	Reaction modifier system enable double-network hydrogel electrolyte for flexible zinc-air batteries with tolerance to extreme cold conditions. Energy Storage Materials, 2021, 42, 88-96.	9.5	81
261	Anti-freezing starch hydrogels with superior mechanical properties and water retention ability for 3D printing. International Journal of Biological Macromolecules, 2021, 190, 382-389.	3.6	12
262	Mechanically robust, highly adhesive and autonomously low-temperature self-healing elastomer fabricated based on dynamic metalÂâ^'Âligand interactions tailored for functional energetic composites. Chemical Engineering Journal, 2021, 425, 130665.	6.6	32
263	Preparation of intrinsic flexible conductive PEDOT:PSS@ionogel composite film and its application for touch panel. Chemical Engineering Journal, 2021, 425, 131542.	6.6	16
264	Research progress on double-network hydrogels. Materials Today Communications, 2021, 29, 102757.	0.9	51
265	One stone for three birds: One-step engineering highly elastic and conductive hydrogel electronics with multilayer MXene as initiator, crosslinker and conductive filler simultaneously. Chemical Engineering Journal, 2022, 428, 132515.	6.6	44
266	3D hollow-structured hydrogels with editable macrostructure, function, and mechanical properties induced by segmented adjustments. RSC Advances, 2021, 11, 26876-26882.	1.7	3
267	Food Waste Durian Rind-Derived Cellulose Organohydrogels: Toward Anti-Freezing and Antimicrobial Wound Dressing. ACS Sustainable Chemistry and Engineering, 2021, 9, 1304-1312.	3.2	24
268	The Formation and Control of Ice Crystal and Its Impact on the Quality of Frozen Aquatic Products: A Review. Crystals, 2021, 11, 68.	1.0	69
269	Bioinspired 3D Printable, Self-Healable, and Stretchable Hydrogels with Multiple Conductivities for Skin-like Wearable Strain Sensors. ACS Applied Materials & Interfaces, 2021, 13, 2952-2960.	4.0	125
270	Stretchable multifunctional hydrogels for sensing electronics with effective EMI shielding properties. Soft Matter, 2021, 17, 9057-9065.	1.2	13
271	Adaptable ionic liquid-containing supramolecular hydrogel with multiple sensations at subzero temperatures. Journal of Materials Chemistry C, 2021, 9, 1044-1050.	2.7	17

#	Article	IF	Citations
272	A transparent glycerol-hydrogel with stimuli-responsive actuation induced unexpectedly at subzero temperatures. Journal of Materials Chemistry A, 2021, 9, 7935-7945.	5.2	52
273	Capacitive Pressure Sensors Containing Reliefs on Solution-Processable Hydrogel Electrodes. ACS Applied Materials & Interfaces, 2021, 13, 1441-1451.	4.0	47
274	Antifreezing Zwitterionic Hydrogel Electrolyte with High Conductivity of 12.6 mS cm^{â^'1} at â^'40ÂâC through Hydrated Lithium Ion Hopping Migration. Advanced Functional Materials, 2021, 31, 2009438.	7.8	122
275	Aqueous Rechargeable Metalâ€Ion Batteries Working at Subzero Temperatures. Advanced Science, 2021, 8, 2002590.	5.6	89
276	Biocompatible and self-healing ionic gel skin as shape-adaptable and skin-adhering sensor of human motions. Chemical Engineering Journal, 2020, 398, 125540.	6.6	46
277	Spider web-inspired ultra-stable 3D Ti3C2TX (MXene) hydrogels constructed by temporary ultrasonic alignment and permanent in-situ self-assembly fixation. Composites Part B: Engineering, 2020, 197, 108187.	5.9	41
278	Bioinspired Design of Reinforced Gradient Hydrogels with Rapid Water-Triggered Shape Memory Performance. ACS Applied Polymer Materials, 2020, 2, 2858-2866.	2.0	12
279	An aqueous hybrid electrolyte for low-temperature zinc-based energy storage devices. Energy and Environmental Science, 2020, 13, 3527-3535.	15.6	442
280	Design and fabrication of conductive polymer hydrogels and their applications in flexible supercapacitors. Journal of Materials Chemistry A, 2020, 8, 23059-23095.	5.2	151
281	Environment adaptive hydrogels for extreme conditions: a review. Biosurface and Biotribology, 2019, 5, 104-109.	0.6	6
282	Development of Conductive Hydrogels for Fabricating Flexible Strain Sensors. Small, 2022, 18, e2101518.	5.2	188
283	Rational Design of Polycationic Hydrogel with Excellent Combination Functions for Flexible Wearable Electronic Devices. Macromolecular Materials and Engineering, 2022, 307, 2100593.	1.7	4
284	Ultra-Stretchable and Self-Healing Anti-Freezing Strain Sensors Based on Hydrophobic Associated Polyacrylic Acid Hydrogels. Materials, 2021, 14, 6165.	1.3	4
285	From Glutinousâ€Riceâ€Inspired Adhesive Organohydrogels to Flexible Electronic Devices Toward Wearable Sensing, Power Supply, and Energy Storage. Advanced Functional Materials, 2022, 32, .	7.8	101
286	Mechanical and Tribological Study of PVAâ€“pMPDSAH Double-Network Hydrogel Prepared by Ultraviolet Irradiation and Freezeâ€“Thaw Methods for Bionic Articular Cartilage. Journal of Bionic Engineering, 2021, 18, 1192-1201.	2.7	9
287	Microstructured biphasic hydrogels for highly sensitive and asymmetric sensors with <scp>temperatureâ€dependent</scp> sensitivity. Journal of Polymer Science, 2022, 60, 2701-2709.	2.0	2
288	Superelastic, Antifreezing, Antidrying, and Conductive Organohydrogels for Wearable Strain Sensors. ACS Applied Materials & Interfaces, 2021, 13, 51546-51555.	4.0	35
289	Heat- and freeze-tolerant organohydrogel with enhanced ionic conductivity over a wide temperature range for highly mechanoresponsive smart paint. Journal of Colloid and Interface Science, 2022, 608, 2158-2168.	5.0	8

#	Article	IF	Citations
290	Tannic acid/clay hydrogel with time-dependent mechanical and adhesive performance enabled by molecular interaction evolution. Polymer, 2021, 235, 124261.	1.8	1
291	Anti-freezing organohydrogel triboelectric nanogenerator toward highly efficient and flexible human-machine interaction at â˜’Â30ÂÂ°C. Nano Energy, 2021, 90, 106614.	8.2	74
292	Solvent-induced in-situ self-assembly lignin nanoparticles to reinforce conductive nanocomposite organogels as anti-freezing and anti-dehydration flexible strain sensors. Chemical Engineering Journal, 2022, 433, 133202.	6.6	54
293	Lignin reinforced hydrogels with multi-functional sensing and moist-electric generating applications. International Journal of Biological Macromolecules, 2021, 193, 941-947.	3.6	19
294	Preparation of stretchable and self-healable dual ionically cross-linked hydrogel based on chitosan/polyacrylic acid with anti-freezing property for multi-model flexible sensing and detection. International Journal of Biological Macromolecules, 2021, 193, 629-637.	3.6	32
295	Nanocellulose-enhanced organohydrogel with high-strength, conductivity, and anti-freezing properties for wearable strain sensors. Carbohydrate Polymers, 2022, 277, 118872.	5.1	45
296	Nonvolatile, stretchable and adhesive ionogel fiber sensor designed for extreme environments. Chemical Engineering Journal, 2022, 433, 133500.	6.6	39
297	A self-healing zinc ion battery under -20 Â°C. Energy Storage Materials, 2022, 44, 517-526.	9.5	53
298	Dually cross-linked single network poly(ionic liquid)/ionic liquid ionogels for a flexible strain-humidity bimodal sensor. Soft Matter, 2021, 17, 10918-10925.	1.2	23
299	Highly elastic and fatigue resistant wood/silica composite aerogel operated at extremely low temperature. Composites Part B: Engineering, 2022, 230, 109496.	5.9	24
300	A UV-filtering, environmentally stable, healable and recyclable ionic hydrogel towards multifunctional flexible strain sensor. Composites Part B: Engineering, 2022, 230, 109528.	5.9	46
301	Low-Temperature Wearable Strain Sensor Based on a Silver Nanowires/Graphene Composite with a Near-Zero Temperature Coefficient of Resistance. ACS Applied Materials & Interfaces, 2021, 13, 55307-55318.	4.0	41
302	Poly(vinyl alcohol) Hydrogels: The Old and New Functional Materials. International Journal of Polymer Science, 2021, 2021, 1-16.	1.2	43
303	Tough, Transparent, 3Dâ€Printable, and Selfâ€Healing Poly(ethylene glycol)â€Gel (PEGgel). Advanced Materials, 2022, 34, e2107791.	11.1	55
304	Stretchable, adhesive, antifreezing and 3D printable double-network hydrogel for flexible strain sensors. European Polymer Journal, 2022, 164, 110977.	2.6	19
305	Modified MXene-doped conductive organosilicon elastomer with high-stretchable, toughness, and self-healable for strain sensors. Composite Structures, 2022, 282, 115071.	3.1	14
306	Freeze/thawed polyvinyl alcohol hydrogels: Present, past and future. European Polymer Journal, 2022, 164, 110974.	2.6	134
307	Conductive ionogel with underwater adhesion and stability as multimodal sensor for contactless signal propagation and wearable devices. Composites Part B: Engineering, 2022, 232, 109612.	5.9	28

#	Article	IF	Citations
308	Recent Progress on Selfâ€Healable Conducting Polymers. Advanced Materials, 2022, 34, e2108932.	11.1	58
309	Freezing-Tolerant, Nondrying, Stretchable, and Adhesive Organohydrogels Inspired by the DNA Double Helix Structure for a Flexible Dual-Response Sensor. ACS Applied Polymer Materials, 2022, 4, 1159-1172.	2.0	6
310	A wide-temperature-range sensor based on wide-strain-range self-healing and adhesive organogels. New Journal of Chemistry, 2022, 46, 4334-4342.	1.4	4
311	Stretchable slide-ring supramolecular hydrogel for flexible electronic devices. Communications Materials, 2022, 3, .	2.9	24
312	Environment tolerant, adaptable and stretchable organohydrogels: preparation, optimization, and applications. Materials Horizons, 2022, 9, 1356-1386.	6.4	75
313	Ultraâ€Stretchable and Fast Selfâ€Healing Ionic Hydrogel in Cryogenic Environments for Artificial Nerve Fiber. Advanced Materials, 2022, 34, e2105416.	11.1	110
314	Electrically Programmable Interfacial Adhesion for Ultrastrong Hydrogel Bonding. Advanced Materials, 2022, 34, e2108820.	11.1	28
315	Ultra-robust, self-healable and recyclable polyurethane elastomer via a combination of hydrogen bonds, dynamic chemistry, and microphase separation. Materials Today Chemistry, 2022, 23, 100708.	1.7	16
316	High performance solid-state supercapacitors based on highly conductive organogel electrolyte at low temperature. Journal of Power Sources, 2022, 524, 231102.	4.0	17
317	Recent progress in hydrogel-based sensors and energy harvesters. Sensors and Actuators A: Physical, 2022, 335, 113382.	2.0	20
318	Synthesis and performance characterization of a road coal dust suppressant with excellent consolidation, adhesion, and weather resistance. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 639, 128334.	2.3	11
319	All-in-One flexible supercapacitor based on hydrogen bonds cross-linked organic gel electrolyte with anti-freezing and anti-pressure properties. Journal of Alloys and Compounds, 2022, 902, 163658.	2.8	16
320	Nanoarchitectonics of Stretchable Organic Electronics Materials. RSC Nanoscience and Nanotechnology, 2022, , 518-545.	0.2	0
321	CO2-sourced anti-freezing hydrogel electrolyte for sustainable Zn-ion batteries. Chemical Engineering Journal, 2022, 435, 135051.	6.6	30
322	A flexible solid-state supercapacitor with extreme low-temperature tolerance based on an ion conducting ice gel electrolyte. Journal of Materials Chemistry A, 2022, 10, 7036-7047.	5.2	16
323	Self-Healing, Anti-Freezing Hydrogels and Its Application in Diversified Skin-Like Electronic Sensors. IEEE Sensors Journal, 2022, 22, 12588-12594.	2.4	8
324	A Strong, Ultrastretchable, Antifreezing and High Sensitive Strain Sensor Based on Ionic Conductive Fiber Reinforced Organohydrogel. SSRN Electronic Journal, 0, , .	0.4	0
325	A highly adhesive, self-healing and perdurable PEDOT:PSS/PAAâ€“Fe³⁺ gel enabled by multiple non-covalent interactions for multi-functional wearable electronics. Journal of Materials Chemistry C, 2022, 10, 6271-6280.	2.7	29

#	Article	IF	Citations
326	Ultra-antifreeze, ultra-stretchable, transparent, and conductive hydrogel for multi-functional flexible electronics as strain sensor and triboelectric nanogenerator. Nano Research, 2022, 15, 5461-5468.	5.8	42
327	Highly Conductive and Mechanically Robust Cellulose Nanocomposite Hydrogels with Antifreezing and Antidehydration Performances for Flexible Humidity Sensors. ACS Applied Materials & Interfaces, 2022, 14, 10886-10897.	4.0	87
328	Biodegradable Elastomers and Gels for Elastic Electronics. Advanced Science, 2022, 9, e2105146.	5.6	45
329	Selfâ€Healing, Waterâ€Retaining, Antifreeze, Conductive PVA/PAAâ€PAMâ€S/GC Composite Hydrogels for Strain and Temperature Sensors. Macromolecular Materials and Engineering, 2022, 307, .	1.7	12
330	Freezeâ€Tolerant Hydrogel Electrolyte with High Strength for Stable Operation of Flexible Zincâ€Ion Hybrid Supercapacitors. Small, 2022, 18, e2200055.	5.2	67
331	Flexible Sensors Based on Conductive Polymers. Chemosensors, 2022, 10, 97.	1.8	45
332	Intrinsically anti-freezing and anti-dehydration hydrogel for multifunctional wearable sensors. Science China Materials, 2022, 65, 1980-1986.	3.5	11
333	Nanocellulose-templated carbon nanotube enhanced conductive organohydrogel for highly-sensitive strain and temperature sensors. Cellulose, 2022, 29, 3829-3844.	2.4	18
334	Dualâ€Dynamic Modulation of Thermal Radiation and Electromagnetic Interference Shielding with the Selfâ€Healing Electrochromic Device. Advanced Materials Technologies, 2022, 7, .	3.0	6
335	Nanolignin filled conductive hydrogel with improved mechanical, anti-freezing, UV-shielding and transparent properties for strain sensing application. International Journal of Biological Macromolecules, 2022, 205, 442-451.	3.6	43
336	A â€œTwoâ€inâ€Oneâ€•Strategy for Flexible Aqueous Batteries Operated at â^'80 Â°C. Advanced Functional Materials, 2022, 32, .	7.8	45
337	Chitin/Ca solvent-based conductive and stretchable organohydrogel with anti-freezing and anti-drying. International Journal of Biological Macromolecules, 2022, 207, 484-492.	3.6	8
338	Tough and extremely temperature-tolerance nanocomposite organohydrogels as ultrasensitive wearable sensors for wireless human motion monitoring. Composites Part A: Applied Science and Manufacturing, 2022, 157, 106905.	3.8	13
339	One-pot mechanochemical assembly of lignocellulose nanofiber/graphite nanocomposites for wearable electronic devices. Chemical Engineering Journal, 2022, 437, 135286.	6.6	18
340	An antifreezing and thermally stable hydrogel electrolyte for high-performance all-in-one flexible supercapacitor. Journal of Energy Storage, 2022, 50, 104231.	3.9	24
341	Ions Transport in Electrochemical Energy Storage Devices at Low Temperatures. Advanced Functional Materials, 2022, 32, .	7.8	24
342	Hofmeister Effect and Electrostatic Interaction Enhanced Ionic Conductive Organohydrogels for Electronic Applications. Advanced Functional Materials, 2022, 32, .	7.8	41
343	A Packaged and Reusable Hydrogel Strain Sensor with Conformal Adhesion to Skin for Human Motions Monitoring. Advanced Materials Interfaces, 2022, 9, .	1.9	7

#	Article	IF	Citations
344	Electrically, Thermally, and Mechanically Anisotropic Gels with a Wide Operational Temperature Range. Advanced Functional Materials, 2022, 32, .	7.8	9
345	Recent progress and perspectives on advanced flexible Zn-based batteries with hydrogel electrolytes. Materials Research Letters, 2022, 10, 501-520.	4.1	20
346	Transparent, Antifreezing, Ionic Conductive Carboxymethyl Chitosan Hydrogels as Multifunctional Sensors. ACS Applied Polymer Materials, 2022, 4, 4025-4034.	2.0	14
348	Anti-dryable, anti-freezable, and self-healable conductive hydrogel for adhesive electrodes. Composite Interfaces, 2022, 29, 1561-1571.	1.3	1
349	Preparation of multifunctional biohydrogel sensors with one freezeâ€“thaw process. Journal of Applied Polymer Science, 0, , .	1.3	2
350	Transparent, Selfâ€Adhesive, Conductive Organohydrogels with Fast Gelation from Ligninâ€Based Selfâ€Catalytic System for Extreme Environmentâ€Resistant Triboelectric Nanogenerators. Advanced Functional Materials, 2022, 32, .	7.8	63
351	Structures, properties, and applications of zwitterionic polymers. ChemPhysMater, 2022, 1, 294-309.	1.4	33
352	Deformable, transparent, highâ€performance, <scp>roomâ€temperature</scp> oxygen sensors based on <scp>ionâ€conductive</scp>, <scp>environmentâ€tolerant,</scp> and green organohydrogels. EcoMat, 2022, 4, .	6.8	14
354	A multifunctional MXene-assembled anhydrous gel electronics. Journal of Colloid and Interface Science, 2022, 623, 1151-1159.	5.0	9
355	Skin-Inspired Packaging of Injectable Hydrogel Sensors Enabled by Photopolymerizable and Swellable Hydrogels toward Sustainable Electronics. ACS Sustainable Chemistry and Engineering, 2022, 10, 6657-6666.	3.2	12
356	Antifreezing zwitterionic hydrogel electrolyte with high conductivity at subzero temperature for flexible sensor and supercapacitor. Sustainable Materials and Technologies, 2022, 32, e00437.	1.7	13
357	Mechanically Robust, Antifatigue, and Temperature-Tolerant Nanocomposite Ionogels Enabled by Hydrogen Bonding as Wearable Sensors. ACS Applied Polymer Materials, 2022, 4, 4189-4198.	2.0	10
358	Photothermally responsive smart elastomer composites based on aliphatic polycarbonate backbone for biomedical applications. Composites Part B: Engineering, 2022, 240, 109985.	5.9	16
359	Antiâ€Freezing Strategies of Electrolyte and their Application in Electrochemical Energy Devices. Chemical Record, 2022, 22, .	2.9	9
360	Recent advances in lignosulfonate filled hydrogel for flexible wearable electronics: A mini review. International Journal of Biological Macromolecules, 2022, 212, 393-401.	3.6	17
361	Anti-Freezing, Non-Drying, Localized Stiffening, and Shape-Morphing Organohydrogels. Gels, 2022, 8, 331.	2.1	3
362	<scp>Energyâ€Dissipative</scp> and Soften Resistant Hydrogels Based on Chitosan Physical Network: From Construction to Application. Chinese Journal of Chemistry, 2022, 40, 2118-2134.	2.6	11
363	Stretchable supercapacitor based on a hierarchical PPy/CNT electrode and hybrid hydrogel electrolyte with a wide operating temperature. , 2022, 4, 527-538.		25

#	Article	IF	Citations
364	Highly Stretchable, Ultraâ€Soft, and Fast Selfâ€Healable Conductive Hydrogels Based on Polyaniline Nanoparticles for Sensitive Flexible Sensors. Advanced Functional Materials, 2022, 32, .	7.8	74
365	A flexible supercapacitor with high capacitance retention at an ultra-low temperature of -65.0Â°C. Electrochimica Acta, 2022, 424, 140644.	2.6	11
366	Fruit Peel-Inspired Super-Stable Ionic Organohydrogel Electronics with Dense Hydrophobic Skin. ACS Applied Polymer Materials, 2022, 4, 4673-4680.	2.0	2
367	Antifreezing Zwitterionic-Based Hydrogel Electrolyte for Aqueous Zn Ion Batteries. ACS Applied Energy Materials, 2022, 5, 7530-7537.	2.5	24
368	Highly stretchable, strain-stiffening, self-healing ionic conductors for wearable sensors. Chemical Engineering Journal, 2022, 449, 137633.	6.6	15
369	Tough and Antifreezing MXene@Au Hydrogel for Low-Temperature Trimethylamine Gas Sensing. ACS Applied Materials & Interfaces, 2022, 14, 30182-30191.	4.0	25
370	Silk Fibroin Cryogel Building Adaptive Organohydrogels with Switching Mechanics and Viscoelasticity. ACS Applied Polymer Materials, 2022, 4, 5234-5245.	2.0	6
371	Highâ€Stretchability, Ultralowâ€Hysteresis ConductingPolymer Hydrogel Strain Sensors for Soft Machines. Advanced Materials, 2022, 34, .	11.1	209
372	A ternary heterogeneous hydrogel with strength elements for resilient, self-healing, and recyclable epidermal electronics. Npj Flexible Electronics, 2022, 6, .	5.1	11
373	A high-conductive, anti-freezing, antibacterial and anti-swelling starch-based physical hydrogel for multifunctional flexible wearable sensors. International Journal of Biological Macromolecules, 2022, 213, 791-803.	3.6	28
374	Stretchable, self-healable and anti-freezing conductive hydrogel based on double network for strain sensors and arrays. Journal of Materials Science, 2022, 57, 12511-12521.	1.7	9
375	A Highly Mechanical, Conductive, and Cryophylactic Double Network Hydrogel for Flexible and Low-Temperature Tolerant Strain Sensors. Gels, 2022, 8, 424.	2.1	8
376	A strong, ultrastretchable, antifreezing and high sensitive strain sensor based on ionic conductive fiber reinforced organohydrogel. Composites Part B: Engineering, 2022, 243, 110116.	5.9	23
377	Aqueous zinc-ion batteries at extreme temperature: Mechanisms, challenges, and strategies. Energy Storage Materials, 2022, 51, 683-718.	9.5	54
378	Highly stretchable, self-healing, and adhesive polymeric eutectogel enabled by hydrogen-bond networks for wearable strain sensor. Chemical Engineering Journal, 2022, 449, 137878.	6.6	42
379	Antifreezing, Ionically Conductive, Transparent, and Antidrying Carboxymethyl Chitosan Self-Healing Hydrogels as Multifunctional Sensors. ACS Biomaterials Science and Engineering, 2022, 8, 3633-3643.	2.6	12
380	Selfâ€healable, recyclable, ultrastretchable, and highâ€performance NO₂ sensors based on an organohydrogel for room and subâ€zeroÂtemperature and wireless operation. SmartMat, 2023, 4, .	6.4	36
381	Longâ€lasting moisture and antiâ€freezing tough organohydrogels based on multiâ€functional nanoâ€micelles for flexible dualâ€response sensors. Journal of Applied Polymer Science, 0, , .	1.3	1

#	Article	IF	Citations
382	A cellulose-based self-healing composite eutectogel with reversibility and recyclability for multi-sensing. Composites Science and Technology, 2022, 229, 109696.	3.8	8
383	Bioinspired Freezeâ€Tolerant Soft Materials: Design, Properties, and Applications. Small, 2022, 18, .	5.2	29
384	Tough Adhesive, Antifreezing, and Antidrying Natural Globulin-Based Organohydrogels for Strain Sensors. ACS Applied Materials & Interfaces, 2022, 14, 39299-39310.	4.0	19
385	Stretchable, selfâ€healable, and breathable biomimetic iontronics with superior humidityâ€sensing performance for wireless respiration monitoring. SmartMat, 2023, 4, .	6.4	45
386	Tough, anti-freezing and conductive ionic hydrogels. NPG Asia Materials, 2022, 14, .	3.8	22
387	High water-retaining, antifreeze micro-supercapacitor without encapsulation for all-weather. Journal of Power Sources, 2022, 545, 231909.	4.0	3
388	Temperature tolerant all-solid-state touch panel with high stretchablity, transparency and self-healing ability. Chemical Engineering Journal, 2023, 451, 138672.	6.6	7
389	Spatially confined building of environmental-adaptive hydrogel electrolyte for supercapacitors. Journal of Power Sources, 2022, 548, 232015.	4.0	6
390	Soft self-healing resistive-based sensors inspired by sensory transduction in biological systems. Applied Materials Today, 2022, 29, 101638.	2.3	6
391	d-gluconic acetal gelator-based supramolecular â€“ Polymer dual network eutectogels for high performance temperature, strain, and pressure sensors. Chemical Engineering Journal, 2023, 451, 139051.	6.6	15
392	Self-adhesive, self-healing, conductive organogel strain sensors with extreme temperature tolerance. Journal of Materials Chemistry C, 2022, 10, 15532-15540.	2.7	8
393	A flexible and fully recyclable transparent conductive organogel based on KI-containing glycerol with excellent anti-freezing and anti-drying behavior. Journal of Materials Chemistry C, 2022, 10, 15439-15450.	2.7	6
394	Facile preparation and characterization of tough poly(vinyl alcohol) organohydrogels with low friction and self-cleaning properties. Journal of Industrial and Engineering Chemistry, 2022, , .	2.9	3
395	Anti-Freezing Nanocomposite Organohydrogels with High Strength and Toughness. Polymers, 2022, 14, 3721.	2.0	1
396	Low-molecular-weight supramolecular adhesive with resistance to low temperatures. Chinese Chemical Letters, 2023, 34, 107830.	4.8	5
397	Preparation of tough and ionic conductive PVA/carboxymethyl chitosan bio-based organohydrogels with long-term stability for strain sensor. Cellulose, 2022, 29, 9323-9339.	2.4	13
398	Advanced polymer-based electrolytes in zincâ€“air batteries. EScience, 2022, 2, 453-466.	25.0	117
399	Highly Sensitive Zwitterionic Hydrogel Sensor for Motion and Pulse Detection with Water Retention, Adhesive, Antifreezing, and Self-Healing Properties. ACS Applied Materials & Interfaces, 2022, 14, 47100-47112.	4.0	24

#	Article	IF	Citations
400	From grape seed extracts to extremely stable strain sensors with freezing tolerance, drying resistance and anti-oxidation properties. Materials Today Communications, 2022, 33, 104551.	0.9	2
401	Efficient angiogenesis-based wound healing through hydrogel dressing with extracellular vesicles release. Materials Today Bio, 2022, 16, 100427.	2.6	8
402	Carbon nanotube-enhanced nanocomposite organohydrogel based on a physically cross-linked double network for sensitive wearable sensors. Journal of Materials Chemistry C, 2022, 10, 16546-16555.	2.7	2
403	Alkaline Tolerant Antifreezing Additive Enabling Aqueous Zn||Ni Battery Operating at â^'60â€‰Â°C. Angewandte Chemie - International Edition, 2022, 61, .	7.2	26
404	Flexible Aggregation-Induced Emission-Active Hydrogel for On-Site Monitoring of Pesticide Degradation. ACS Nano, 2022, 16, 18421-18429.	7.3	24
405	Histidine-Triggered GO Hybrid Hydrogels for Microfluidic 3D Printing. ACS Nano, 2022, 16, 19533-19542.	7.3	21
406	Alkaline Tolerant Antifreezing Additive Enabling Aqueous Zn||Ni Battery Operating at â^'60â€‰Â°C. Angewandte Chemie, 2022, 134, .	1.6	5
407	Multifunctional hybrid hydrogel with transparency, conductivity, and self-adhesion for soft sensors using hemicellulose-decorated polypyrrole as a conductive matrix. International Journal of Biological Macromolecules, 2022, 223, 1-10.	3.6	7
408	Low hysteresis, anti-freezing and conductive organohydrogel prepared by thiol-ene click chemistry for human-machine interaction. Polymer, 2022, 262, 125464.	1.8	8
409	The synthesis, mechanisms, and additives for bioâ€compatible polyvinyl alcohol hydrogels: A review on current advances, trends, and future outlook. Journal of Vinyl and Additive Technology, 2023, 29, 939-959.	1.8	6
410	Ultraelastic and Highâ€Conductivity Multiphase Conductor with Universally Autonomous Selfâ€Healing. Advanced Science, 2022, 9, .	5.6	4
411	Recent advances in conductive hydrogels: classifications, properties, and applications. Chemical Society Reviews, 2023, 52, 473-509.	18.7	125
412	Highly surface-conformable thermoelectric patches for efficient thermal contact with arbitrary substrates. Chemical Engineering Journal, 2023, 455, 140925.	6.6	3
413	Inorganic Subnanometer Nanowire-Based Organogels: Trends, Challenges, and Opportunities. ACS Nano, 2023, 17, 20-26.	7.3	6
414	Highâ€Performance Strain Sensors Based on Organohydrogel Microsphere Film for Wearable Humanâ€“Computer Interfacing. Advanced Science, 2023, 10, .	5.6	43
415	Construction of Carboxymethyl Chitosan Hydrogel with Multiple Cross-linking Networks for Electronic Devices at Low Temperature. ACS Biomaterials Science and Engineering, 2023, 9, 508-519.	2.6	8
416	Chestnut-Tannin-Crosslinked, Antibacterial, Antifreezing, Conductive Organohydrogel as a Strain Sensor for Motion Monitoring, Flexible Keyboards, and Velocity Monitoring. ACS Applied Materials & Interfaces, 2023, 15, 2147-2162.	4.0	67
417	Balancing the Overall Performance of Poly(vinyl alcohol)/MXene Composite Organohydrogels for Flexible Strain Sensors. ACS Applied Polymer Materials, 2023, 5, 370-380.	2.0	4

#	Article	IF	Citations
418	Flexible Stretchable, Dry-Resistant MXene Nanocomposite Conductive Hydrogel for Human Motion Monitoring. Polymers, 2023, 15, 250.	2.0	5
419	Hofmeister Effect Assisted Dualâ€Dynamicâ€Bond Crossâ€Linked Organohydrogels with Enhanced Ionic Conductivity and Balanced Mechanical Properties for Flexible Sensors. Advanced Functional Materials, 2023, 33, .	7.8	21
420	Mixed solvent exchange enabled high-performance polymeric gels. Polymer, 2023, 267, 125661.	1.8	5
421	A Review on Thermal Properties of Hydrogels for Electronic Devices Applications. Gels, 2023, 9, 7.	2.1	10
422	Rational Design of Flexible Zn-Based Batteries for Wearable Electronic Devices. ACS Nano, 2023, 17, 1764-1802.	7.3	50
423	Zn2+-Loaded adhesive bacterial cellulose hydrogel with angiogenic and antibacterial abilities for accelerating wound healing. Burns and Trauma, 2023, 11, .	2.3	13
424	Key approaches and challenges in fabricating advanced flexible zinc-ion batteries with functional hydrogel electrolytes. Energy Storage Materials, 2023, 56, 351-393.	9.5	32
425	Graphene oxide assisted triple network hydrogel electrolyte with high mechanical and temperature stability for self-healing supercapacitor. Journal of Energy Storage, 2023, 61, 106658.	3.9	13
426	Self-healable and freeze-resistant polyelectrolyte based on an EG anchor chain and dual dynamic reversible interaction as highly sensitive ionic skin. Journal of Materials Chemistry C, 2023, 11, 4753-4765.	2.7	2
427	Muscle Contraction-Inspired Tough Hydrogels. ACS Applied Materials & Interfaces, 2023, 15, 8462-8470.	4.0	8
428	Stretchable conductive hydrogel with super resistance-strain stability and ultrahigh durability enabled by specificity crosslinking strategy for high-performance flexible electronics. Chemical Engineering Journal, 2023, 465, 142828.	6.6	6
429	Mussel-inspired lignin decorated cellulose nanocomposite tough organohydrogel sensor with conductive, transparent, strain-sensitive and durable properties. International Journal of Biological Macromolecules, 2023, 239, 124260.	3.6	3
430	A super-tough ionic conductive hydrogel with anti-freezing, water retention, and self-regenerated properties for self-powered flexible sensor. Applied Materials Today, 2023, 32, 101820.	2.3	6
431	An ultralow-friction, low-temperature-lubrication, anti-volatilization and anti-corrosion organohydrogel merely containing nanosilica gelator. Tribology International, 2023, 180, 108302.	3.0	3
432	AIE-Active Freeze-Tolerant Hydrogels Enable Multistage Information Encryption and Decryption at Subzero Temperatures. Engineering, 2023, 23, 82-89.	3.2	3
433	Electrolytes in Organic Batteries. Chemical Reviews, 2023, 123, 1712-1773.	23.0	57
434	Highly Robust Nanogels from Thermal-Responsive Nanoparticles with Controlled Swelling for Engineering Deployments. ACS Applied Materials & Interfaces, 2023, 15, 11175-11184.	4.0	1
435	Stretchable all-in-one supercapacitor enabled by poly(ethylene glycol)-based hydrogel electrolyte with low-temperature tolerance. Polymer, 2023, 270, 125796.	1.8	10

#	Article	IF	Citations
436	Aqueous eutectic hydrogel electrolytes enable flexible thermocells with a wide operating temperature range. Journal of Materials Chemistry A, 2023, 11, 6986-6996.	5.2	5
437	Smart Wearable Systems for Health Monitoring. Sensors, 2023, 23, 2479.	2.1	17
438	Collagen-Based Organohydrogel Strain Sensor with Self-Healing and Adhesive Properties for Detecting Human Motion. ACS Applied Materials & Interfaces, 2023, 15, 12350-12362.	4.0	58
439	Chinese Tofuâ€Inspired Biomimetic Conductive and Transparent Fibers for Biomedical Applications. Small Methods, 2023, 7, .	4.6	3
440	Celluloseâ€based Conductive Gels and Their Applications. ChemNanoMat, 2023, 9, .	1.5	6
441	Research progress and perspectives on ultra-low temperature organic batteries. Journal of Materials Chemistry A, 2023, 11, 7898-7923.	5.2	5
442	Wideâ€Temperature Flexible Supercapacitor from an Organohydrogel Electrolyte and Its Combined Electrode. Chemistry - A European Journal, 2023, 29, .	1.7	3
443	A self-healing electrically conductive organogel composite. Nature Electronics, 2023, 6, 206-215.	13.1	56
444	Bioinspired anti-freezing 3D-printable conductive hydrogel microfibers for highly-sensitive and wide-range detection of ultralow and high strains. Green Chemical Engineering, 2024, 5, 132-143.	3.3	2
445	Self-healing, tough, red-to-near-infrared (NIR) luminescent organohydrogels derived from supramolecular assemblies of common aggregation-induced emissive luminogens. Chemical Engineering Journal, 2023, 463, 142307.	6.6	0
446	Multi-environmentally stable and underwater adhesive DNA ionogels enabling flexible strain sensor. Polymer, 2023, 272, 125844.	1.8	7
447	Bioâ€Inspired Electroâ€Thermalâ€Hygro Responsive Rewritable Systems with Temporal/Spatial Control for Environmentâ€Interactive Information Display. Small, 2023, 19, .	5.2	4
448	Dual Network Hydrogel with High Mechanical Properties, Electrical Conductivity, Water Retention and Frost Resistance, Suitable for Wearable Strain Sensors. Gels, 2023, 9, 224.	2.1	1
449	Silk Fibroin-Based Shape-Memory Organohydrogels with Semicrystalline Microinclusions. ACS Applied Bio Materials, 2023, 6, 1594-1603.	2.3	1
450	Influence of graphene oxide on rheology, mechanical, dielectric, and triboelectric properties of poly(vinyl alcohol) nanocomposite hydrogels prepared via a facile one step process. Soft Matter, 0, , .	1.2	0
451	Organogels versus Hydrogels: Advantages, Challenges, and Applications. Advanced Functional Materials, 2023, 33, .	7.8	26
452	Organoâ€Hydrogel Electrolytes with Versatile Environmental Adaptation for Advanced Flexible Aqueous Energy Storage Devices. Small Science, 2023, 3, .	5.8	9
453	Tardigrade-inspired extremotolerant glycerogels. NPG Asia Materials, 2023, 15, .	3.8	0

#	Article	IF	Citations
454	Ionic Conduction and Dielectric Response of Nanoparticle-Coupled Hydrogel Network Polymer Electrolytes. Macromolecules, 2023, 56, 3393-3405.	2.2	4
455	Self-assembling bilayer wiring with highly conductive liquid metal and insulative ion gel layers. Scientific Reports, 2023, 13, .	1.6	1
456	Carboxymethylcellulose reinforced, double-network hydrogel-based strain sensor with superior sensing stability for long-term monitoring. International Journal of Biological Macromolecules, 2023, 241, 124536.	3.6	5
457	Highly conductive, anti-freezing, and adhesive hydrogels containing pores constructed by cationâ€“dipole interactions. Journal of Molecular Liquids, 2023, 382, 121860.	2.3	2
464	Competitive proton-trapping strategy enhanced anti-freezing organohydrogel fibers for high-strain-sensitivity wearable sensors. Materials Horizons, 2023, 10, 3569-3581.	6.4	4
472	Reversible organohydrogels based on dynamic hydrogen bonding among water, dimethyl sulfoxide, and polyethylene glycol. Chemical Communications, 2023, 59, 8063-8066.	2.2	1
475	Cellulose-Based Ionic Conductor: An Emerging Material toward Sustainable Devices. Chemical Reviews, 2023, 123, 9204-9264.	23.0	30
480	Self-adhesive, Transparent, Conductive Hydrogels from Electrospun Core-shell Nanofibers. , 2023, , .		0
505	Anti-freezing Multifunctional Conductive Hydrogels: From Structure Design to Flexible Electronic Devices. Materials Chemistry Frontiers, 0, , .	3.2	0
514	Solid-state, liquid-free ion-conducting elastomers: rising-star platforms for flexible intelligent devices. Materials Horizons, 2024, 11, 1152-1176.	6.4	0