## Robust and flexible strain sensors based on dual physic hydrogels for monitoring human-motion

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**Citation Report** 

#	Article	IF	CITATIONS
2	Recyclable, stretchable and conductive double network hydrogels towards flexible strain sensors. Journal of Materials Chemistry C, 2018, 6, 13316-13324.	2.7	87
3	Dual Cross-Linked Hydrogels That Undergo Structural Transformation via Selective Triggered Depolymerization. Chemistry of Materials, 2019, 31, 6249-6256.	3.2	25
4	Skin-Inspired Gels with Toughness, Antifreezing, Conductivity, and Remoldability. ACS Applied Materials & Interfaces, 2019, 11, 28336-28344.	4.0	111
5	Wearable strain sensors based on casein-driven tough, adhesive and anti-freezing hydrogels for monitoring human-motion. Journal of Materials Chemistry B, 2019, 7, 5230-5236.	2.9	107
6	Bioinspired Dynamic Cross-Linking Hydrogel Sensors with Skin-like Strain and Pressure Sensing Behaviors. Chemistry of Materials, 2019, 31, 9522-9531.	3.2	195
7	Recent advances in supramolecular hydrogels for biomedical applications. Materials Today Advances, 2019, 3, 100021.	2.5	93
8	Exploring the Multilevel Perception of Safety Climate on Taiwanese Construction Sites. Sustainability, 2019, 11, 4596.	1.6	11
9	An integrated transparent, UV-filtering organohydrogel sensor <i>via</i> molecular-level ion conductive channels. Journal of Materials Chemistry A, 2019, 7, 4525-4535.	5.2	143
10	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
11	A flexible, adhesive and self-healable hydrogel-based wearable strain sensor for human motion and physiological signal monitoring. Journal of Materials Chemistry B, 2019, 7, 4638-4648.	2.9	223
12	Transparent and conductive amino acid-tackified hydrogels as wearable strain sensors. Chemical Engineering Journal, 2019, 375, 121915.	6.6	96
13	Doping engineering of conductive polymer hydrogels and their application in advanced sensor technologies. Chemical Science, 2019, 10, 6232-6244.	3.7	139
14	Toughening Mechanism of Hydrophobic Association Hydrogels Reinforced by Latex Particles. Macromolecular Materials and Engineering, 2019, 304, 1900151.	1.7	0
15	Preparation of soft somatosensory-detecting materials <i>via</i> selective laser sintering. Journal of Materials Chemistry C, 2019, 7, 6786-6794.	2.7	8
16	Carbonized cotton fabric-based multilayer piezoresistive pressure sensors. Cellulose, 2019, 26, 5001-5014.	2.4	44
17	High strength dual-crosslinked hydrogels with photo-switchable color changing behavior. European Polymer Journal, 2019, 116, 545-553.	2.6	12
18	Intrinsically stretchable conductors and interconnects for electronic applications. Materials Chemistry Frontiers, 2019, 3, 1032-1051.	3.2	21
19	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

#	Article	IF	CITATIONS
20	A highly stretchable large strain sensor based on PEDOT–thermoplastic polyurethane hybrid prepared via in situ vapor phase polymerization. Journal of Industrial and Engineering Chemistry, 2019, 74, 108-117.	2.9	28
21	Strain-sensitivity conductive MWCNTs composite hydrogel for wearable device and near-infrared photosensor. Journal of Materials Science, 2019, 54, 8515-8530.	1.7	59
22	Highly stretchable and bio-based sensors for sensitive strain detection of angular displacements. Cellulose, 2019, 26, 3401-3413.	2.4	31
23	Double-Network Physical Cross-Linking Strategy To Promote Bulk Mechanical and Surface Adhesive Properties of Hydrogels. Macromolecules, 2019, 52, 9512-9525.	2.2	59
24	Hydrophobic association hydrogels with excellent mechanical and self-healing properties. European Polymer Journal, 2019, 112, 660-669.	2.6	133
25	Carbon nanotubes reinforced hydrogel as flexible strain sensor with high stretchability and mechanically toughness. Chemical Engineering Journal, 2020, 382, 122832.	6.6	328
26	Physical hydrogels based on natural polymers. , 2020, , 51-89.		20
27	Self-healing conductive hydrogels: preparation, properties and applications. Nanoscale, 2020, 12, 1224-1246.	2.8	286
28	Thermo-responsive shape memory sensors based on tough, remolding and anti-freezing hydrogels. Journal of Materials Chemistry C, 2020, 8, 2326-2335.	2.7	54
29	Development of high-strength, tough, and self-healing carboxymethyl guar gum-based hydrogels for human motion detection. Journal of Materials Chemistry C, 2020, 8, 900-908.	2.7	60
30	Reviews of wearable healthcare systems: Materials, devices and system integration. Materials Science and Engineering Reports, 2020, 140, 100523.	14.8	215
31	Room temperature liquid metal: its melting point, dominating mechanism and applications. Frontiers in Energy, 2020, 14, 81-104.	1.2	32
32	Bioinspired tough, conductive hydrogels with thermally reversible adhesiveness based on nanoclay confined NIPAM polymerization and a dopamine modified polypeptide. Materials Chemistry Frontiers, 2020, 4, 189-196.	3.2	33
33	Thermoreversible Structurally Recoverable Dualâ€Network Elastomer Hydrogel. Macromolecular Materials and Engineering, 2020, 305, 1900633.	1.7	8
34	Highâ€Performance Flexible Sensors of Selfâ€Healing, Reversibly Adhesive, and Stretchable Hydrogels for Monitoring Large and Subtle Strains. Macromolecular Materials and Engineering, 2020, 305, 1900621.	1.7	19
35	Multi-Sacrificial Bonds Enhanced Double Network Hydrogel with High Toughness, Resilience, Damping, and Notch-Insensitivity. Polymers, 2020, 12, 2263.	2.0	11
36	Biomimetic epidermal sensors assembled from polydopamine-modified reduced graphene oxide/polyvinyl alcohol hydrogels for the real-time monitoring of human motions. Journal of Materials Chemistry B, 2020, 8, 10549-10558.	2.9	31
37	Polyaniline-Decorated Supramolecular Hydrogel with Tough, Fatigue-Resistant, and Self-Healable Performances for All-In-One Flexible Supercapacitors. ACS Applied Materials & Interfaces, 2020, 12, 9736-9745.	4.0	119

# 38	ARTICLE A self-adhesive wearable strain sensor based on a highly stretchable, tough, self-healing and ultra-sensitive ionic hydrogel. Journal of Materials Chemistry C, 2020, 8, 17349-17364.	IF 2.7	Citations 94
39	Strong and tough PVA/PAA hydrogel fiber with highly strain sensitivity enabled by coating MWCNTs. Composites Part A: Applied Science and Manufacturing, 2020, 138, 106050.	3.8	36
40	Nanocomposite hydrogel-based strain and pressure sensors: a review. Journal of Materials Chemistry A, 2020, 8, 18605-18623.	5.2	230
41	A Review of Conductive Hydrogel Used in Flexible Strain Sensor. Materials, 2020, 13, 3947.	1.3	121
42	Visible light induced synthesis of high toughness, self-healing ionic hydrogel and its application in strain sensing. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 607, 125438.	2.3	23
43	A conductive polyacrylamide/double bond chitosan/polyaniline hydrogel for flexible sensing. Journal of Materials Science: Materials in Electronics, 2020, 31, 10381-10389.	1.1	11
44	Self-powered integrated system of a strain sensor and flexible all-solid-state supercapacitor by using a high performance ionic organohydrogel. Materials Horizons, 2020, 7, 2085-2096.	6.4	187
45	Effects of surfactant and ionic concentration on properties of dual physical crosslinking self-healing hydrogels by hydrophobic association and ionic interactions. New Journal of Chemistry, 2020, 44, 4061-4070.	1.4	22
46	Thermoplastic biomass transparent films directly fabricated by chitosan nanospheres. Polymer, 2020, 192, 122335.	1.8	8
47	Stretchable conductive Ni@Fe3O4@Polyester fabric strain sensor with negative resistance variation and electromagnetic interference shielding. Organic Electronics, 2020, 81, 105677.	1.4	23
48	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
49	Chitosan in-situ grafted magnetite nanoparticles toward mechanically robust and electrically conductive ionic-covalent nanocomposite hydrogels with sensitive strain-responsive resistance. Composites Science and Technology, 2020, 195, 108173.	3.8	55
50	High strength, antifreeze, and moisturizing conductive hydrogel for humanâ€motion detection. Polymer, 2020, 196, 122469.	1.8	50
51	Design of Slidable Polymer Networks: A Rational Strategy to Stretchable, Rapid Self-Healing Hydrogel Electrolytes for Flexible Supercapacitors. ACS Applied Materials & Interfaces, 2020, 12, 20479-20489.	4.0	58
52	Constructing dual ionically cross-linked poly(acrylamide-co-acrylic acid) /chitosan hydrogel materials embedded with chitosan decorated halloysite nanotubes for exceptional mechanical performance. Composites Part B: Engineering, 2020, 194, 108046.	5.9	53
53	Low-temperature tolerant strain sensors based on triple crosslinked organohydrogels with ultrastretchability. Chemical Engineering Journal, 2021, 404, 126559.	6.6	108
54	Anti-freezing, resilient and tough hydrogels for sensitive and large-range strain and pressure sensors. Chemical Engineering Journal, 2021, 403, 126431.	6.6	215
55	Crucial roles of graphene oxide in preparing alginate/nanofibrillated cellulose double network composites hydrogels. Chemosphere, 2021, 263, 128240.	4.2	62

#	Article	IF	Citations
56	Electrostatic self-assembly enabled flexible paper-based humidity sensor with high sensitivity and superior durability. Chemical Engineering Journal, 2021, 404, 127105.	6.6	105
57	A porous self-healing hydrogel with an island-bridge structure for strain and pressure sensors. Journal of Materials Chemistry B, 2021, 9, 719-730.	2.9	71
58	Multiple-Stimuli-Responsive and Cellulose Conductive Ionic Hydrogel for Smart Wearable Devices and Thermal Actuators. ACS Applied Materials & Interfaces, 2021, 13, 1353-1366.	4.0	108
59	Bioinspired double network hydrogels: from covalent double network hydrogels <i>via</i> hybrid double network hydrogels to physical double network hydrogels. Materials Horizons, 2021, 8, 1173-1188.	6.4	230
60	Bioinspired, nucleobase-driven, highly resilient, and fast-responsive antifreeze ionic conductive hydrogels for durable pressure and strain sensors. Journal of Materials Chemistry A, 2021, 9, 20703-20713.	5.2	55
61	High toughness fully physical cross-linked double network organohydrogels for strain sensors with anti-freezing and anti-fatigue properties. Materials Advances, 2021, 2, 6655-6664.	2.6	22
62	A safe and robust dual-network hydrogel electrolyte coupled with multi-heteroatom doped carbon nanosheets for flexible quasi-solid-state zinc ion hybrid supercapacitors. Nanoscale, 2021, 13, 15869-15881.	2.8	34
63	Mussel-inspired hydrogels as tough, self-adhesive and conductive bioelectronics: a review. Soft Matter, 2021, 17, 8786-8804.	1.2	17
64	High strength and flexible aramid nanofiber conductive hydrogels for wearable strain sensors. Journal of Materials Chemistry C, 2021, 9, 575-583.	2.7	60
65	Environment stable ionic organohydrogel as a self-powered integrated system for wearable electronics. Journal of Materials Chemistry A, 2021, 9, 16345-16358.	5.2	32
66	Construction of polyimide films with excellent dimensional stability and toughness via incorporating point-to-face multi-coordination structure. Composites Part B: Engineering, 2021, 208, 108566.	5.9	23
67	Design of an Electro-Stimulated Hydrogel Actuator System with Fast Flexible Folding Deformation under a Low Electric Field. ACS Applied Materials & amp; Interfaces, 2021, 13, 15633-15646.	4.0	43
68	Recent Development of Alginate-Based Materials and Their Versatile Functions in Biomedicine, Flexible Electronics, and Environmental Uses. ACS Biomaterials Science and Engineering, 2021, 7, 1302-1337.	2.6	71
69	Multifunctional Self-Healing Dual Network Hydrogels Constructed via Host–Guest Interaction and Dynamic Covalent Bond as Wearable Strain Sensors for Monitoring Human and Organ Motions. ACS Applied Materials & Interfaces, 2021, 13, 14612-14622.	4.0	134
70	Self-Recoverable, Stretchable, and Sensitive Wearable Sensors Based on Ternary Semi-interpenetrating Ionic Hydrogels. ACS Applied Polymer Materials, 2021, 3, 2732-2741.	2.0	27
71	Guar gum/gellan gum interpenetrating-network self-healing hydrogels for human motion detection. European Polymer Journal, 2021, 151, 110371.	2.6	28
72	Hydrogen-bonded network enables semi-interpenetrating ionic conductive hydrogels with high stretchability and excellent fatigue resistance for capacitive/resistive bimodal sensors. Chemical Engineering Journal, 2021, 411, 128506.	6.6	88
73	Muscle-inspired double-network hydrogels with robust mechanical property, biocompatibility and ionic conductivity. Carbohydrate Polymers, 2021, 262, 117936.	5.1	43

#	ARTICLE	IF	CITATIONS
74	Silicone Rubber Composites Reinforced by Carbon Nanofillers and Their Hybrids for Various Applications: A Review. Polymers, 2021, 13, 2322.	2.0	70
75	Fatigue Testing of Wearable Sensing Technologies: Issues and Opportunities. Materials, 2021, 14, 4070.	1.3	10
76	Multifunctional Biosensors Made with Self-Healable Silk Fibroin Imitating Skin. ACS Applied Materials & Interfaces, 2021, 13, 33371-33382.	4.0	27
77	Anti-freezing, moisturizing, resilient and conductive organohydrogel for sensitive pressure sensors. Journal of Colloid and Interface Science, 2021, 594, 584-592.	5.0	54
78	Preparation of High-Performance Composite Hydrogel Reinforced by Hydrophilic Modified Waste Rubber Powder. Molecules, 2021, 26, 4788.	1.7	3
79	A tough polysaccharide-based cell-laden double-network hydrogel promotes articular cartilage tissue regeneration in rabbits. Chemical Engineering Journal, 2021, 418, 129277.	6.6	39
80	A High Strength Hydrogel with a Core–Shell Structure Simultaneously Serving as Strain Sensor and Solar Water Evaporator. Macromolecular Materials and Engineering, 2021, 306, 2100309.	1.7	9
81	Tough thermosensitive hydrogel with excellent adhesion to low-energy surface developed via nanoparticle-induced dynamic crosslinking. Applied Surface Science, 2021, 560, 149935.	3.1	13
82	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
83	Wearable and Robust Polyimide Hydrogel Fiber Textiles for Strain Sensors. ACS Applied Materials & Interfaces, 2021, 13, 43323-43332.	4.0	37
84	Highly stretchable porous composite hydrogels with stable conductivity for strain sensing. Composites Science and Technology, 2021, 213, 108968.	3.8	25
85	Wearable self-powered human motion sensors based on highly stretchable quasi-solid state hydrogel. Nano Energy, 2021, 88, 106272.	8.2	58
86	Research progress on double-network hydrogels. Materials Today Communications, 2021, 29, 102757.	0.9	51
87	Multifunctional conductive hydrogels and their applications as smart wearable devices. Journal of Materials Chemistry B, 2021, 9, 2561-2583.	2.9	166
88	Polypyrrole/PU hybrid hydrogels: electrically conductive and fast self-healing for potential applications in body-monitor sensors. New Journal of Chemistry, 2021, 45, 7321-7331.	1.4	13
89	Highly tough supramolecular double network hydrogel electrolytes for an artificial flexible and low-temperature tolerant sensor. Journal of Materials Chemistry A, 2020, 8, 6776-6784.	5.2	220
90	Self-Recovery, Fatigue-Resistant, and Multifunctional Sensor Assembled by a Nanocellulose/Carbon Nanotube Nanocomplex-Mediated Hydrogel. ACS Applied Materials & Interfaces, 2021, 13, 50281-50297.	4.0	125
91	A review on the features, performance and potential applications of hydrogel-based wearable strain/pressure sensors. Advances in Colloid and Interface Science, 2021, 298, 102553.	7.0	82

#	Article	IF	CITATIONS
92	Natural glycyrrhizic acid-tailored hydrogel with in-situ gradient reduction of AgNPs layer as high-performance, multi-functional, sustainable flexible sensors. Chemical Engineering Journal, 2022, 430, 132779.	6.6	21
93	Signal conditioning circuit for gel strain sensors. Smart Materials and Structures, 2022, 31, 015020.	1.8	4
94	Ionic conductive and stretchable interpenetrating hydrogels prepared with homogenously synthesized acrylamide-modified agar and polyacrylamide for strain sensing. Polymer, 2022, 238, 124387.	1.8	5
95	A self-healing water-dissolvable and stretchable cellulose-hydrogel for strain sensor. Cellulose, 2022, 29, 341-354.	2.4	18
96	Recent Developments of Nanomaterials in Hydrogels: Characteristics, Influences, and Applications. ChemistrySelect, 2021, 6, 12358-12382.	0.7	11
97	Alginate-Based Smart Materials and Their Application: Recent Advances and Perspectives. Topics in Current Chemistry, 2022, 380, 3.	3.0	31
98	Recent Advances in Bioinspired Hydrogels: Materials, Devices, and Biosignal Computing. ACS Biomaterials Science and Engineering, 2023, 9, 2048-2069.	2.6	27
99	Polyacrylamide/Copperâ€Alginate Double Network Hydrogel Electrolyte with Excellent Mechanical Properties and Strain‧ensitivity. Macromolecular Bioscience, 2022, 22, e2100361.	2.1	17
100	Ultrahigh sensitivity wearable sensors enabled by electrophoretic deposition of carbon nanostructured composites onto everyday fabrics. Journal of Materials Chemistry C, 2022, 10, 1617-1624.	2.7	13
101	Stretchable, freezing-tolerant conductive hydrogel for wearable electronics reinforced by cellulose nanocrystals toward multiple hydrogen bonding. Carbohydrate Polymers, 2022, 280, 119018.	5.1	47
102	Lignin reinforced hydrogels with fast self-recovery, multi-functionalities via calcium ion bridging for flexible smart sensing applications. International Journal of Biological Macromolecules, 2022, 200, 226-233.	3.6	13
103	Design of asymmetric-adhesion lignin reinforced hydrogels with anti-interference for strain sensing and moist air induced electricity generator. International Journal of Biological Macromolecules, 2022, 201, 104-110.	3.6	21
104	Fe <sup>3+</sup> -Coordination mediated synergistic dual-network conductive hydrogel as a sensitive and highly-stretchable strain sensor with adjustable mechanical properties. Journal of Materials Chemistry B, 2022, 10, 1442-1452.	2.9	14
105	A stretchable and self-healing ionic artificial muscle modified by conductive substances. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	6
106	A highly stretchable, sensing durability, transparent, and environmentally stable ion conducting hydrogel strain sensor built by interpenetrating Ca2+-SA and glycerol-PVA double physically cross-linked networks. Advanced Composites and Hybrid Materials, 2022, 5, 1712-1729.	9.9	57
107	Synergistic complexation of phenol functionalized polymer induced <i>in situ</i> microfiber formation for 3D printing of marine-based hydrogels. Green Chemistry, 2022, 24, 2409-2422.	4.6	16
108	Polysaccharide-based high-strength, self-healing and ultra-sensitive wearable sensors. Industrial Crops and Products, 2022, 178, 114618.	2.5	9
109	A Skinâ€Like Pressure―and Vibrationâ€Sensitive Tactile Sensor Based on Polyacrylamide/Silk Fibroin Elastomer. Advanced Functional Materials, 2022, 32, .	7.8	39

#	Article	IF	CITATIONS
110	Recent Progress in Double Network Elastomers: One Plus One is Greater Than Two. Advanced Functional Materials, 2022, 32, .	7.8	44
111	Tough, Repeatedly Adhesive, Cyclic Compression-Stable, and Conductive Dual-Network Hydrogel Sensors for Human Health Monitoring. Industrial & Engineering Chemistry Research, 2021, 60, 18373-18383.	1.8	87
112	Highly Deformable, Conductive Double-Network Hydrogel Electrolytes for Durable and Flexible Supercapacitors. ACS Applied Materials & amp; Interfaces, 2022, 14, 15641-15652.	4.0	23
113	Tough, Self-Adhesive, Antibacterial, and Recyclable Supramolecular Double Network Flexible Hydrogel Sensor Based on PVA/Chitosan/Cyclodextrin. Industrial & Engineering Chemistry Research, 2022, 61, 3620-3635.	1.8	57
114	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
115	Tannic acid-Fe3+ activated rapid polymerization of ionic conductive hydrogels with high mechanical properties, self-healing, and self-adhesion for flexible wearable sensors. Composites Science and Technology, 2022, 221, 109345.	3.8	55
116	A Dataâ€Driven Review of Soft Robotics. Advanced Intelligent Systems, 2022, 4, .	3.3	28
117	Tough, conductive hydrogels with double-network based on hydrophilic polymer assistant well-dispersed carbon nanotube for innovative force sensor. Science China Technological Sciences, 2022, 65, 1160-1168.	2.0	7
118	Transparent, Antifreezing, Ionic Conductive Carboxymethyl Chitosan Hydrogels as Multifunctional Sensors. ACS Applied Polymer Materials, 2022, 4, 4025-4034.	2.0	14
119	A short review on chitosan and gelatin-based hydrogel composite polymers for wound healing. Journal of Biomaterials Science, Polymer Edition, 2022, 33, 1595-1622.	1.9	16
120	Preparation of multifunctional biohydrogel sensors with one freeze–thaw process. Journal of Applied Polymer Science, 0, , .	1.3	2
121	Tannic acid modified antifreezing gelatin organohydrogel for low modulus, high toughness, and sensitive flexible strain sensor. International Journal of Biological Macromolecules, 2022, 209, 1665-1675.	3.6	19
122	Wires with Continuous Sabal Leafâ€Patterned Micropores Constructed by Freeze Printing for a Wearable Sensor Responsible to Multiple Deformations. Small, 2022, 18, e2201091.	5.2	5
123	Preparation and application of graphene-based wearable sensors. Nano Research, 2022, 15, 9850-9865.	5.8	20
124	Highly strong and sensitive bilayer hydrogel actuators enhanced by cross-oriented nanocellulose networks. Composites Science and Technology, 2022, 225, 109494.	3.8	16
125	Deep Learning Enabled Neck Motion Detection Using a Triboelectric Nanogenerator. ACS Nano, 2022, 16, 9359-9367.	7.3	39
126	Highly Elastic, Sensitive, Stretchable, and Skin-Inspired Conductive Sodium Alginate/Polyacrylamide/Gallium Composite Hydrogel with Toughness as a Flexible Strain Sensor. Biomacromolecules, 2022, 23, 2603-2613.	2.6	25
127	Bio-inspired, super-stretchable and self-adhesive hybrid hydrogel with SC-PDA/GO-Ca2+/PAM framework for high precision wearable sensors. Chemical Engineering Journal, 2022, 447, 137259.	6.6	35

#	Article	IF	CITATIONS
128	Long/Short chain Crosslinkers-optimized and PEDOT:PSS-enhanced covalent double network hydrogels rapidly prepared under green LED irradiation as flexible strain sensor. European Polymer Journal, 2022, 174, 111327.	2.6	12
129	Bioinspired Hydrogels as Platforms for Life-Science Applications: Challenges and Opportunities. Polymers, 2022, 14, 2365.	2.0	28
130	Electrospun Titanium Dioxide Nanofibers Reinforced Anti-freezing, Adhesive and Conductive Hydrogels. , 2022, , .		0
131	The Progress of Research into Flexible Sensors in the Field of Smart Wearables. Sensors, 2022, 22, 5089.	2.1	14
132	Environmentally Tolerant Ionic Hydrogel with High Power Density for Low-Grade Heat Harvesting. ACS Applied Materials & Interfaces, 2022, 14, 34714-34721.	4.0	13
133	Double-network hydrogel-based stretchable, adhesive, and conductive e-skin sensor coupled human skin-like biocompatible and protective properties. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 652, 129803.	2.3	15
135	Silver-Hydrogel/PDMS film with high mechanical strength for anti-interference strain sensor. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 654, 130071.	2.3	9
136	Mechanically ductile, ionically conductive and low-temperature tolerant hydrogel enabled by high-concentration saline towards flexible strain sensor. Nano Energy, 2022, 103, 107789.	8.2	52
137	Nanocrack-based ultrasensitive wearable and skin-mountable strain sensors for human motion detection. Materials Advances, 2022, 3, 8665-8676.	2.6	6
138	Stretchable and tough tannic acid-modified graphene oxide/ polyvinyl alcohol conductive hydrogels for strain and pressure sensors. AIP Advances, 2022, 12, .	0.6	4
139	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
140	Flexible, adhesive, strainâ€sensitive, and skinâ€matchable hydrogel strain sensors for human motion and handwritten signal monitoring. Polymers for Advanced Technologies, 2023, 34, 430-440.	1.6	1
141	Toughened, self-healing and self-adhesive conductive gels with extraordinary temperature adaptability for dual-responsive sensors. Journal of Materials Chemistry A, 2022, 10, 25527-25538.	5.2	10
142	Tensionâ€Responsive Graphene Oxide Conductive Hydrogel with Robust Mechanical Properties and High Sensitivity for Human Motion Monitoring. Macromolecular Materials and Engineering, 2023, 308, .	1.7	4
143	Multi-physically cross-linked hydrogels simultaneously with MPa level mechanical strengths and high equilibrium water content above 70 %. Materials Today Communications, 2022, 33, 104861.	0.9	0
144	Construction of strong and tough carboxymethyl cellulose-based oriented hydrogels by phase separation. International Journal of Biological Macromolecules, 2023, 225, 79-89.	3.6	12
145	Green double crosslinked starch-alginate hydrogel regulated by sustained calcium ion-gluconolactone release for human motion monitoring. Chemical Engineering Journal, 2023, 455, 140653.	6.6	19
146	Hydrogel Nanocomposite Adsorbents and Photocatalysts for Sustainable Water Purification. Advanced Materials Interfaces, 2023, 10, .	1.9	38

#	Article	IF	CITATIONS
147	A Cross-linked Polyethylene with Recyclability and Mechanical Robustness Enabled by Establishment of Multiple Hydrogen Bonds Network via Reactive Melt Blending. Chinese Journal of Polymer Science (English Edition), 2023, 41, 1104-1114.	2.0	2
148	Electromechanical Fatigue Properties of Dielectric Elastomer Capacitive Sensors Based on Plantarflexion of the Human Ankle Joint. , 2023, 2, 017001.		3
149	Carbon Nanotubes and Silica@polyaniline Core–Shell Particles Synergistically Enhance the Toughness and Electrical Conductivity in Hydrophobic Associated Hydrogels. Langmuir, 2023, 39, 1299-1308.	1.6	1
150	Double-network hydrogels for biomaterials: Structure-property relationships and drug delivery. European Polymer Journal, 2023, 185, 111807.	2.6	4
151	Recent Advances and Progress of Conducting Polymer-Based Hydrogels in Strain Sensor Applications. Gels, 2023, 9, 12.	2.1	6
152	Synthesis of Hydrogels and Their Progress in Environmental Remediation and Antimicrobial Application. Gels, 2023, 9, 16.	2.1	3
153	An Eutectic Gel Based on Polymerizable Deep Eutectic Solvent with Selfâ€Adhesive, Selfâ€adaptive Cold and High Temperature Environments. Advanced Materials Technologies, 2023, 8, .	3.0	6
154	Self-adhesive electronic skin for ultra-sensitive healthcare monitoring. Journal of Materials Chemistry A, 2023, 11, 4977-4986.	5.2	11
155	Engineering Smart Composite Hydrogels for Wearable Disease Monitoring. Nano-Micro Letters, 2023, 15, .	14.4	49
156	All-in-One Configured Flexible Supercapacitor for Wide-Temperature Operation and Integrated Application. ACS Applied Energy Materials, 2023, 6, 4157-4167.	2.5	3
157	Bionic multifunctional ultra-linear strain sensor, achieving underwater motion monitoring and weather condition monitoring. Chemical Engineering Journal, 2023, 464, 142539.	6.6	7
158	Silicone-enhanced polyvinyl alcohol hydrogels for high performance wearable strain sensors. Materials and Design, 2023, 229, 111911.	3.3	12
159	Mussel-inspired quaternary composite hydrogels with high strength and high tissue adhesion for transdermal drug delivery: Synergistic hydrogen bonding and drug release mechanism. Chemical Engineering Journal, 2023, 465, 142942.	6.6	8
160	MXene/Ag doped hydrated-salt hydrogels with excellent thermal/light energy storage, strain sensing and photothermal antibacterial performances for intelligent human healthcare. Composites Part A: Applied Science and Manufacturing, 2023, 170, 107526.	3.8	7
161	Dual-network polyvinyl alcohol/polyacrylamide/xanthan gum ionic conductive hydrogels for flexible electronic devices. International Journal of Biological Macromolecules, 2023, 233, 123573.	3.6	13
162	Multifunctional Organohydrogel with Ultralowâ€Hysteresis, Ultrafastâ€Response, and Wholeâ€Strainâ€Range Linearity for Selfâ€Powered Sensors. Advanced Functional Materials, 2023, 33, .	7.8	48
163	Novel Uracil-Functionalized Poly(ionic liquid) Hydrogel: Highly Stretchable and Sensitive as a Direct Wearable Ionic Skin for Human Motion Detection. ACS Applied Materials & Interfaces, 2023, 15, 11062-11075.	4.0	13
164	Advances in Wearable Strain Sensors Based on Electrospun Fibers. Advanced Functional Materials, 2023, 33, .	7.8	31

#	Article	IF	CITATIONS
165	High-Sensitivity Composite Dual-Network Hydrogel Strain Sensor and Its Application in Intelligent Recognition and Motion Monitoring. ACS Applied Polymer Materials, 2023, 5, 2628-2638.	2.0	6
166	Highly Stretchable, Repairable, and Tough Nanocomposite Hydrogel Physically Crossâ€linked by Hydrophobic Interactions and Reinforced by Surfaceâ€Grafted Hydrophobized Cellulose Nanocrystals. Macromolecular Rapid Communications, 2023, 44, .	2.0	2
167	Naturally sourced hydrogels: emerging fundamental materials for next-generation healthcare sensing. Chemical Society Reviews, 2023, 52, 2992-3034.	18.7	41
168	Highly conductive, anti-freezing, and adhesive hydrogels containing pores constructed by cation–dipole interactions. Journal of Molecular Liquids, 2023, 382, 121860.	2.3	2
181	Hydrogel use in burn therapy, thermal management, wastewater treatment and fire fighting: a review. Environmental Chemistry Letters, 2023, 21, 3273-3328.	8.3	6